

CICS Transaction Server for z/OS



# CICSplex SM Managing Business Applications

*Version 3 Release 1*



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**Note!**

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 405.

This edition applies to Version 3 Release 1 of CICS Transaction Server for z/OS, program number 5655-M15, and to all subsequent versions, releases, and modifications until otherwise indicated in new editions. Make sure you are using the correct edition for the level of the product.

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## Preface

This book provides administration and usage information for Business Application Services (BAS). Business Application Services (BAS) is a component of the CICSplex<sup>®</sup> SM element of CICS<sup>®</sup> Transaction Server for z/OS<sup>®</sup>.

---

### Who this book is for

This book is for the individual responsible for administering the CICS systems and CICS business applications at your enterprise.

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### What you need to know

It is assumed that you have experience with defining resources to CICS systems using the CICS Resource Definition Online (RDO) facility.

It is also assumed that you have read:

*CICSplex System Manager Concepts and Planning*

For an introduction to CICSplex SM and the CICSplex SM Starter Set

*CICSplex System Manager User Interface Guide*

For information about using the ISPF end-user interface to CICSplex SM

**Note:** Many of the views in this book are based on the Starter Set. For useful examples of how to perform some of the tasks described in this book, explore the Starter Set itself. The Starter Set is described in *CICSplex SM Concepts and Planning*.

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### CICS system connectivity

This release of CICSplex SM can be used to control CICS systems that are directly connected to it.

For this release of CICSplex SM, the connectable CICS systems are:

- CICS Transaction Server for z/OS 3.1
- CICS Transaction Server for z/OS 2.3
- CICS Transaction Server for z/OS 2.2
- CICS Transaction Server for OS/390<sup>®</sup> 1.3

You can use this release of CICSplex SM to control systems running supported releases of CICS that are connected to, and managed by, your previous release of CICSplex SM. However, if you have any directly-connectable release levels of CICS, as listed above, that are connected to a previous release of CICSplex SM, you are strongly recommended to migrate them to the current release of CICSplex SM, to take full advantage of the enhanced management services. See the *CICS Transaction Server for z/OS Migration from CICS TS Version 2.3* for information on how to do this.

Table 1 on page xiv shows which supported CICS systems can be directly connected to which releases of CICSplex SM.

Table 1. Directly-connectable CICS systems by CICSplex SM release

CICS system	CICSplex SM component of CICS TS 3.1	CICSplex SM component of CICS TS 2.3	CICSplex SM component of CICS TS 2.2	CICSplex SM component of CICS TS 1.3
CICS TS 3.1	Yes	No	No	No
CICS TS 2.3	Yes	Yes	No	No
CICS TS 2.2	Yes	Yes	Yes	No
CICS TS 1.3	Yes	Yes	Yes	Yes
TXSeries 4.3.0.4	No	Yes	Yes	No
TXSeries 5.0	No	Yes	Yes	No

## Notes on terminology

In the text of this book, the term **CICSplex SM** (spelled with an uppercase letter *P*) means the IBM® CICSplex System Manager element of CICS Transaction Server for z/OS, Version 3 Release 1. The term **CICSplex** (spelled with a lowercase letter *p*) means the largest set of CICS systems to be managed by CICSplex SM as a single entity.

Other terms used in this book are:

**CICS** The CICS component of the CICS Transaction Server for z/OS, Version 3 Release 1

**MVS™** The operating system which is a base element of z/OS.

The phrase *issue the command* is used in this book to mean that a command may be either typed in the COMMAND field of an Information Display panel or invoked by pressing the PF key to which it is assigned. When the location of the cursor affects command processing, this phrase also means that you can do one of the following:

- Type the command in the COMMAND field, place the cursor on the appropriate field, and press Enter.
- Move the cursor to the appropriate field and press the PF key to which the command is assigned.

## Syntax notation and conventions used in this book

The syntax descriptions of the CICSplex SM commands use the following symbols:

- Braces { } enclose two or more alternatives from which one must be chosen.
- Square brackets [ ] enclose one or more optional alternatives.
- The OR symbol | separates alternatives.

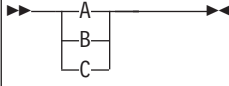
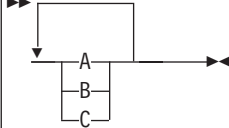
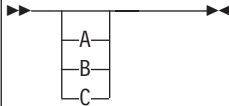
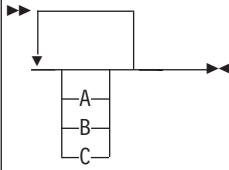
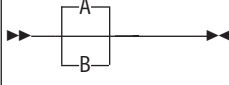
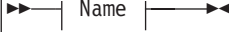
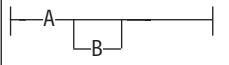
The following conventions also apply to CICSplex SM syntax descriptions:

- Commands and keyword parameters are shown in uppercase characters. If a command or parameter may be abbreviated, the minimum permitted abbreviation is in uppercase characters; the remainder is shown in lowercase characters and may be omitted.
- Variable parameters are shown in lowercase italics. You must replace them with your own information.
- Parameters that are not enclosed by braces { } or brackets [ ] are required.
- A default parameter value is shown like this: **KEYWORD**. It is the value that is assumed if you do not select one of the optional values.



- Punctuation symbols, uppercase characters, and special characters must be coded exactly as shown.
- The ellipsis ... means that the immediately preceding parameter can be included one or more times.

The syntax descriptions of certain character string expressions (such as filter expressions) use a different syntax notation. You interpret those syntax diagrams by following the arrows from left to right. The conventions are:

Symbol	Action
	A set of alternatives—one of which you <b>must</b> code.
	A set of alternatives—one of which you <b>must</b> code. You <b>may</b> code more than one of them, in any sequence.
	A set of alternatives—one of which you <b>may</b> code.
	A set of alternatives — any number (including none) of which you may code once, in any sequence.
	Alternatives where <b>A</b> is the default.
 <b>Name:</b> 	Use with the named section in place of its name.
Punctuation and uppercase characters	Code exactly as shown.
Lowercase characters	Code your own text, as appropriate (for example, name).



---

## Summary of changes

This book is based on the CICSplex SM for CICS Transaction Server for z/OS, Version 2 Release 3 edition. Changes are indicated by a vertical bar to the left of the changes.

---

### Changes for CICS Transaction Server for z/OS, Version 3 Release 1

Sections have been added to support the following new resource definition types:

- PIPELINE, see Chapter 38, “PIPELINE resource definitions,” on page 225
- URIMAP, see Chapter 52, “URIMAP resource definitions,” on page 341
- WEBSERVICE, see Chapter 53, “WEBSERVICE resource definitions,” on page 343.

You need to use the Web User Interface (WUI) to work with these resources in CICSplex SM. There are no new TSO end user interface views.

New sections have been added describing how to use the WUI to work with CICS resource definitions.

---

### Changes for CICS Transaction Server for z/OS, Version 2 Release 3

The following changes have been made to resource definition types:

- DB2CDEF has new attributes DB2GROUPID and RESYNCMEMBER, see “DB2 connection definition attributes” on page 144.
- TCPDEF has a new attribute ATTACHSEC, see “TCP/IP service definition attributes” on page 275.
- TYPTMDEF has a new attribute RSTSIGNOFF, see “Typeterm definition attributes” on page 329.

There has been a change in CICSplex SM field naming conventions in this release. Data set name fields such as DSNAME, file name fields such as LOCFILE and REMFILE, and transient data queue name fields such as EXTRATDQ and INTRATDQ are now case-sensitive. When entering data set and file names into the CICSplex SM interfaces (EUI, API and WUI), ensure that you enter the data in the correct case. In previous releases of CICSplex SM, the data set names and file names are automatically converted to upper case.

---

### Changes for CICS Transaction Server for z/OS, Version 2 Release 1

The following changes have been made to support enterprise beans in CICS Transaction Server for z/OS, Version 2 Release 1. There are two new resource definition types:

- EJCODEF, to define CorbaServers; see Chapter 21, “CorbaServer definitions,” on page 129.
- EJDJDEF, to define CICS-deployed JAR files; see Chapter 22, “CICS-deployed JAR file definitions,” on page 137.

Changed resource types are:

- RQMDEF; see Chapter 43, “Request model resource definitions,” on page 255.
- PROGDEF; see Chapter 41, “Program resource definitions,” on page 241
- TCPDEF; see Chapter 45, “TCP/IP service resource definitions,” on page 273.

- TRANDEF; see Chapter 48, “Transaction resource definitions,” on page 299.

---

## Changes for CICS Transaction Server for OS/390, Version 1 Release 3

The following changes have been made to this book to support the new functions of CICS Transaction Server for OS/390, Version 1 Release 3:

- New BAS objects:
  - DOCDEF, which defines a document template for use in managed CICS systems.
  - ENQMDEF, which defines an enqueue model.
  - PROCDEF, which defines a CICS business transaction services (BTS) process type.
  - RQMDEF, which defines a request model to associate inbound IIOF requests with a set of execution characteristics.
  - TCPDEF, which defines a TCP/IP service that is to use internal sockets support.
  - TSMDEF, which defines a temporary storage queue model.
  - FEPOODEF, which defines a FEPI pool.
  - FENODDEF, which defines a FEPI node.
  - FEPRODEF, which defines a FEPI property set.
  - FETRGDEF, which defines a FEPI target.
- Changes to the FILEDEF object to support coupling facility data tables:
  - New fields have been added: CFDTPOOL, TABLENAME, UPDATEMODEL, and LOAD.
  - The Keylength, Table, and Maxnumrecs attributes have changed.
- Changes to the TRANDEF object to support the new dynamic routing facilities:
  - A new field, Routable, has been added.
  - The use of the Dynamic field has changed.
- A new field, Dynamic, has been added to the PROGDEF object to support the new dynamic routing facilities.
- A new field, Concurrency, has been added to the PROGDEF object to support the Open Transaction Environment.
- Two new fields, JVM and JVMClass, have been added to the PROGDEF object to support running Java applications under the control of a Java Virtual Machine (JVM).

In addition to changes made for new function, the following changes have been made to this book for CICS Transaction Server for z/OS, Version 3 Release 1:

- The information on using the end-user interface (EUI) has been removed. For all information relating to the EUI, see the *CICSplex SM User Interface Guide*.
- The SYSLINK command has been moved from the *CICSplex SM Administration* to Chapter 62, “SYSLINK (system links) view,” on page 385.

---

## Chapter 1. Introduction to CICSplex SM BAS

Business Application Services is the component of CICSplex SM that is responsible for managing the CICS resource definition and installation process for business applications at your enterprise.

Business Application Services provides the following facilities:

### Centralized resource definition

With BAS, you can implement CEDA-like resource definition and association across the entire CICSplex. The CICSplex SM data repository (EYUDREP) can serve as the central repository for CICS resource definitions. CICSplex SM minimizes the number of resource definitions you need for your CICSplex by:

- Providing a single-system image approach to defining CICS resources on the OS/390 and z/OS.
- Producing both local and remote instances of a resource from the attributes of a single definition.
- Managing multiple versions of a definition (for example, as it progresses from testing to production).
- Generating multiple CICS communication links from a single set of connection and session definitions.

### Logical scoping

Once your CICS resources are defined to CICSplex SM, you can monitor and control those resources in terms of their participation in a named business application, rather than their physical location in the CICSplex. Logically related resources can be identified and referred to as a set, regardless of where they actually reside at any given time.

### Distributed resource installation

Resources that are defined to CICSplex SM must still be installed in the appropriate systems, either by CICS or CICSplex SM. You can use BAS to install your resources either automatically, at CICS initialization, or dynamically, while a system is running. A single resource can be installed in multiple CICS systems either locally or remotely, as appropriate.

Business Application Services supports the following CICS resources:

### Application resources

These are the resources that support the business applications at your enterprise. They are the resources that an application requires to run:

- CorbaServers
- CICS BTS process types
- DB2® connections and transactions
- Deployed JAR files
- Document templates
- FEPI nodes, pools, property sets and targets
- Files and key file segment definitions
- IIOP request models
- Map sets
- Partition sets
- Programs
- Sysplex enqueue models
- TCP/IP services
- Temporary storage models

## introduction.

- Transactions
- Transient data queues

### **Region property resources**

These are the global resources that support the running of a CICS system:

- Journals
- Journal models (CICS TS for OS/390 only)
- Local shared resource (LSR) pools
- Profiles
- Transaction classes
- Terminals
- Typeterms

### **Connectivity resources**

These are the resources that support the construction of intersystem communication (ISC) and interregion communication (IRC) links between CICS systems:

- Connections
- Partners
- Sessions

---

## Chapter 2. Methods of accessing BAS

You can access the BAS facilities from:

- The application programming interface (API)
- The Web User Interface (WUI)
- ISPF end user interface (EUI)
- The batched repository-update facility end-user interface views

---

### Using the API

You can use the CICSplex SM API to write external programs that automate the management of CICS resource definitions. Such programs could be used to integrate the CICSplex SM system management functions into your enterprise-wide change management process. For example, you could write an API program to coordinate resource definition changes with database or file updates, or the standard life cycle of an application.

For a complete description of the API, see the *CICSplex SM Application Programming Reference* book.

---

### Using the Web User Interface

Web User Interface (WUI) views are most useful for the day-to-day management of resource definitions. They provide an immediate, interactive look at your resource definitions and create, update and remove actions to manage resource definitions.

The WUI includes a ready made set of resource definition administration views. As with all WUI views, you can use these as provided, or as a basis for creating your own using the WUI view editor.

The views are grouped into basic and fully-functional BAS sub-menus. The basic views restrict the management of resources to the resource description approach. This should be familiar to users of CICS resource definition online (RDO). The fully functional menu, aimed at more advanced users, includes the option of managing resources by resource assignments as well as resource descriptions.

For more guidance on using the WUI, see *CICSplex System Manager Web User Interface Guide*.

---

### Using the end-user interface views

Like the WUI, ISPF end-user interface views are designed for the day-to-day management of resource definitions. With the action commands that CICSplex SM provides you can create an isolated resource for testing purposes, alter attributes in multiple definitions, or install a new version of a definition in a running system.

For a complete description of the BAS end-user interface views and the actions they support, see the *CICSplex System Manager User Interface Guide*.

---

## Using the batched repository-update facility

Your CICS environment probably consists of a large number of resource definitions, each one with a myriad of attributes. The CICSplex SM batched repository-update facility can help you with the major tasks of creating and maintaining resource definitions:

### Defining large numbers of resources

The batched repository-update facility is ideal for creating and updating large numbers of resource definitions. You can start with an input file that contains one CREATE command for one resource definition and use that command as a template for other resource definitions. By copying and customizing the CREATE command, you can quickly build all the resource definitions of a given type that you need. Then, when you submit the batched repository-update facility input file, CICSplex SM creates all the resource definitions and adds them to the data repository.

### Migrating resource definitions

The batched repository-update facility is an essential tool for migrating resource definitions from CICS to CICSplex SM. CICSplex SM provides an exit routine that can extract records from an existing CSD file and generate equivalent resource definitions for input to the batched repository-update facility. For more information about the exit routine, see Chapter 18, “Extracting records from the CSD,” on page 101.

### Maintaining a centralized repository

The batched repository-update facility is useful for migrating resource definitions from one CICS platform to another, which is key to maintaining a centralized definition repository. You can use the DUMP command to retrieve existing resource definitions from the CICSplex SM data repository. Then, after making any required changes to the definitions, you can use the DUMP output as input to another batched repository-update facility run that creates resource definitions for the new CICS platform.

For a complete description of the batched repository-update facility, see the *CICSplex SM Administration* book.



---

## Chapter 3. The BAS objects

No matter how you access BAS, the objects that you are dealing with are essentially the same. The only difference is that with the batched repository-update facility and API, the objects are represented by resource tables; with the end-user interface or the Web User Interface, they are represented by views.

There are two types of Business Application Services objects:

- Resource definition objects
- Administration objects

---

### Resource definition objects

These are the objects you use to define instances of CICS resources as they exist in your CICSplex. The attributes of each resource definition (xxxxDEF) are identical to those of the equivalent CICS CEDA definition.

For example, to define a CICS connection, you use the CONNDEF resource table or view, or the **Connection definition** WUI view. The input panels for creating a connection definition from the view are similar to the CEDA Define Connection screens.

The end-user interface views for the resource definition objects are described in “Browse a resource definition” on page 28.

---

### Administration objects

These are the objects you use to relate resource definitions to each other and to CICS systems.

#### Base objects

These objects are the foundation of BAS. They implement the assignment and installation of resources in CICS systems.

#### RASGNDEF

A resource assignment describes selected resource definitions of a given type and indicates how those resources are to be assigned to various CICS systems.

#### RESDISC

A resource description identifies sets of logically related resource definitions. The set of resources identified in a resource description can be used as the scope value for CICSplex SM requests. The resources can also be installed as a set in CICS systems that support resource installation.

#### RESGROUP

A resource group is a set of related resource definitions. The resource definitions in a group can be of the same or different resource types.

#### Association objects

These objects control the relationships between the base administration objects and their resource definitions.

#### RASINDSC

Associates a resource assignment with a resource description.

## RESINDSC

Associates a resource group with a resource description.

## RESINGRP

Associates resource definitions of a given type with a resource group.

The following figures provide an overview of the end-user interface views used to create these administration objects and associations. Figure 1 represents a simple (or interim) approach to managing CICS resources using the CICSplex SM object model of definitions in groups, groups associated with descriptions, and descriptions associated with CICS systems.

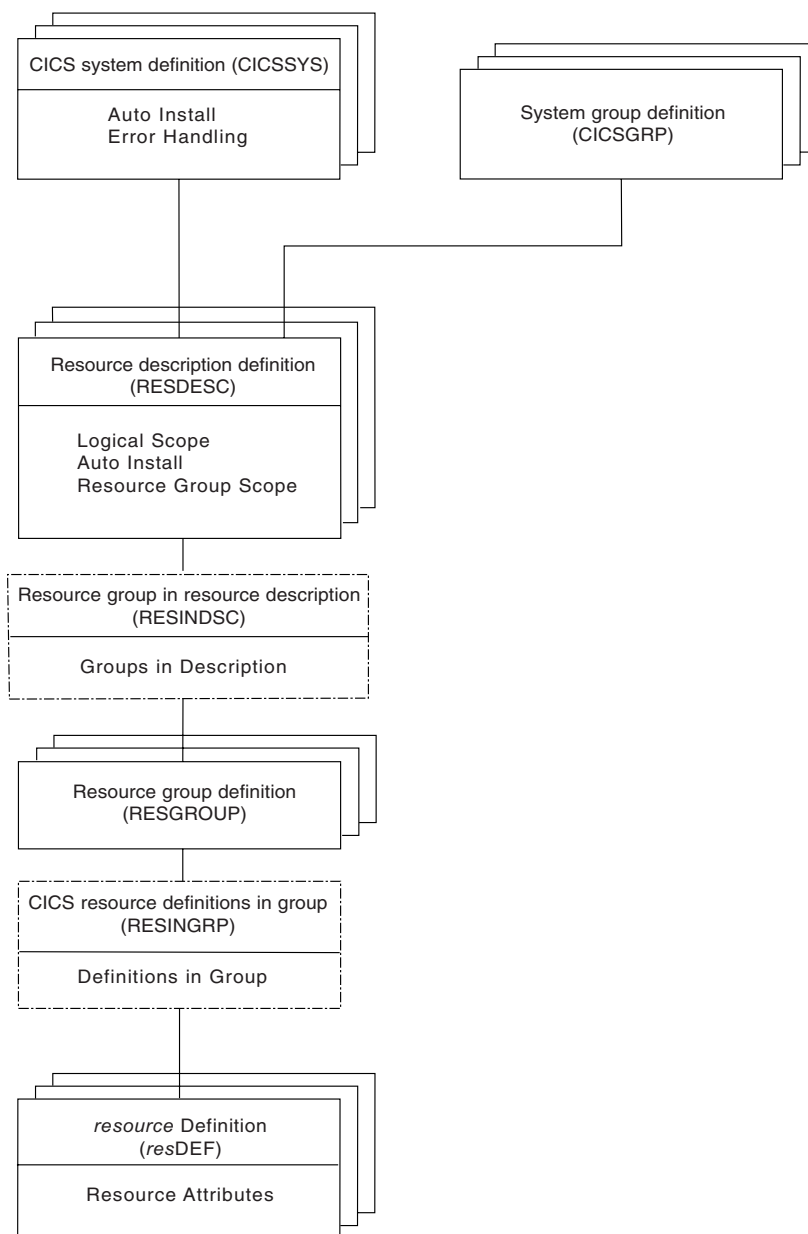


Figure 1. Views for managing CICS resources - a simple approach

Figure 2 illustrates a more selective approach with the resource assignment playing a key role in the selection and assignment of resources.

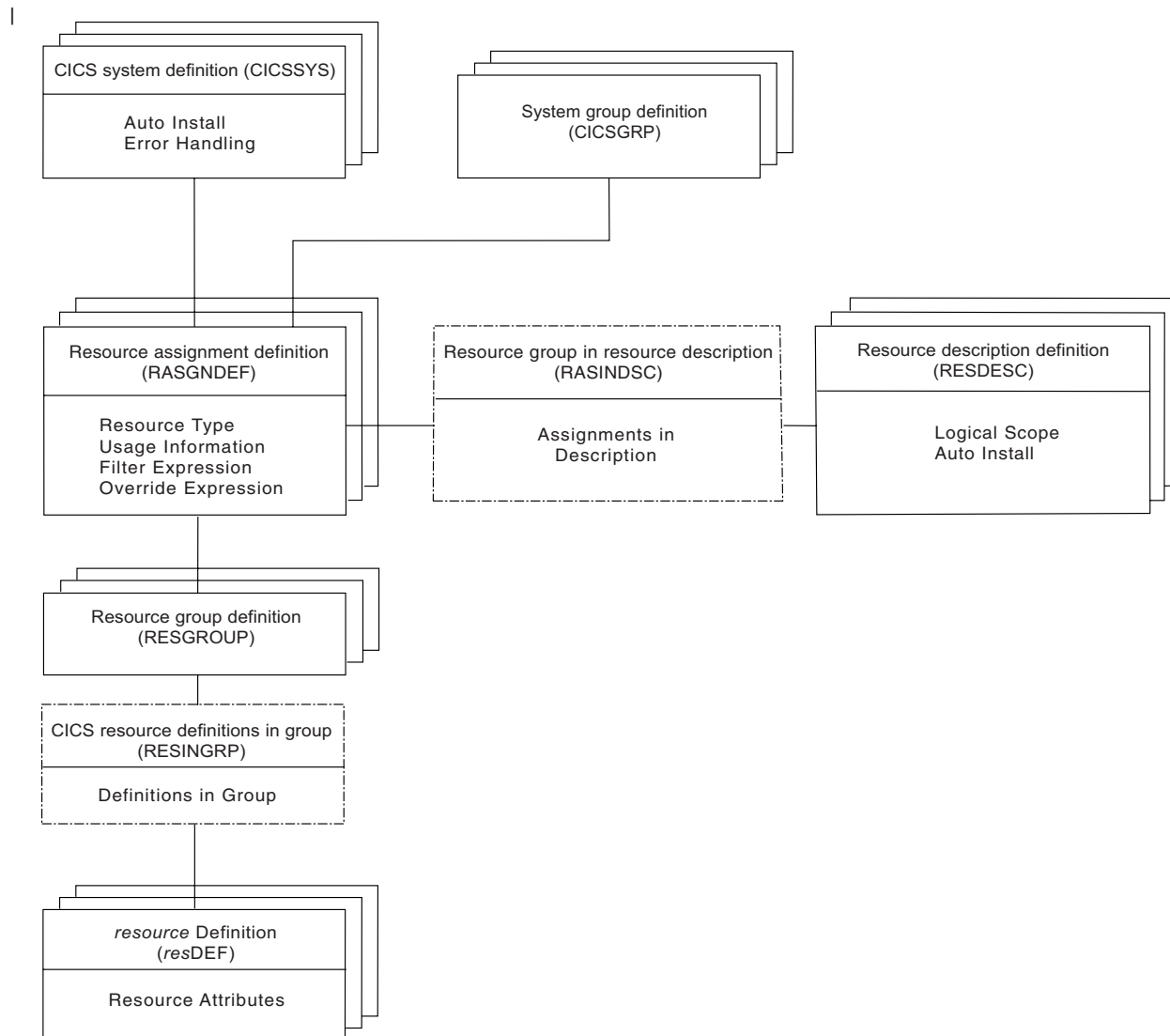


Figure 2. Views for managing CICS resources - a selective approach

There are two additional types of Business Application Services administration objects:

### Process display objects

These objects illustrate how resources will be assigned to CICS systems.

#### RASPROC

Identifies the resource definitions to be selected when a given resource assignment is processed.

#### RDSCPROC

Identifies the resource definitions to be selected when a given resource description is processed.

#### SYSRES

Identifies the resources that are defined to a specified CICS system.

## the BAS objects

### Connectivity objects

These objects describe the nature of communication links between CICS systems.

#### CICSSYS

Describes the operational characteristics of a CICS system, including resource installation options and the system ID to be used in identifying system links. You can use CICSSYS to create system links to other CICS systems. See *CICSplex System Manager Administration*.

#### SYSLINK

Describes the links that exist between CICS systems in your CICSplex. You can use SYSLINK to create and install CICS system links.

## Chapter 4. Comparison of CEDA and BAS functions

Table 2 provides a comparison between CEDA administrative functions and BAS administrative functions.

Table 2. CEDA and BAS administrative functions

CICS CEDA	CICSplex SM BAS	WUI view name
DEFINE resource	RESDEF CREATE	resource Definition
USERDEFINE resource	RESDEF CREATE against model	resource Definition
INSTALL resource	RESDEF INSTALL	resource Definition
VIEW resource	RESDEF BROWSE	resource Definition
ALTER resource	RESDEF ALTER	resource Definition
COPY group	RESGROUP CREATE members	Resource group definition
MOVE group	RESGROUP CREATE association	Resource group in resource description
INSTALL group	RESGROUP INSTALL	Resource group definition
DISPLAY group	RESGROUP	Resource group definition
CHECK group/list	Implicit - consistent set processing	n/a
DISPLAY list	RESDESC	Resource description definition
No equivalent	MAP	n/a
ADD group to list	RESGROUP ADD	Resource group definition
APPEND list to list	RESDESC CREATE model	n/a
EXPAND group/list	RESINDSC/RESINGRP	n/a
INSTALL list	RESDESC INSTALL	Resource description definition
DELETE	REMOVE	n/a
LOCK/UNLOCK	No equivalent (use security)	n/a

CICSplex SM provides the same functions as the CICS CEDA transaction, with a few minor differences. CICSplex SM performs automatically a function similar to CEDA CHECK when certain ADD or UPDATE functions are carried out.



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## Chapter 5. BAS security considerations

Because of the importance of resource definitions to your CICSplex environment, CICSplex SM enables you to define security for the BAS facilities. Providing security for BAS is handled in the same way as it is for other CICSplex SM components. You can define as narrow or as broad a range of BAS functions as you like and authorize as few or as many people as you like to use them. For security purposes, the BAS functions are divided into the following groups:

### **BAS.DEF**

This group includes all of the resource definition views and the related BAS administration views. Users with UPDATE access to this group can create, update, and remove definitions in the CICSplex SM data repository. Users with READ access to this group can view definitions in the CICSplex SM data repository.

### **BAS.resource**

These groups are named according to the resource type they represent (such as BAS.CONNECT, for connection-related definitions). Each group includes the resource definition views for a given resource type. For example, BAS.CONNECT includes the CONNDEF and SESSDEF views.

The purpose of these security groups is to further restrict a user's ability to install resources in CICS systems. A user must have ALTER access to the appropriate BAS.resource group in order to install the specified resources.

In addition to controlling access by function, you may want to limit the use of these functions to certain resources in certain CICS systems. CICSplex SM also provides simulated CICS security checking, which enables you to control access to CICS resources and commands.

You should be aware of the need to take special care in the adequate protection of the BAS views, so that unauthorized users cannot create and administer resources.

You should also take care if you are running CICS/ESA 4.1 or later, and are using the EXEC CICS CREATE command to build new resources. Any definition created with the CICSplex as the context is automatically distributed to all CMASs in the CICSplex. Therefore, giving a user authority to create BAS objects is equivalent to giving authority to install resources on any CICS system in the CICSplex. When the CICS system starts, there is no check on who installed the resource in the system.

For details on setting up security for CICSplex SM at your enterprise, see the *CICS RACF Security Guide* book.





---

## Chapter 6. Definition and maintenance of CICS resources using CICSplex SM

Resource definitions are the most basic element of the Business Application Services environment. CICSplex SM must know about your CICS resources in order to manage them. Defining your resources to CICSplex SM is similar to using RDO to define them to CICS – you specify the attributes that describe the resource in one or more input panels. But you do not have to define every instance of every resource in your CICSplex to CICSplex SM manually. You can use a small number of resource definitions as templates for the creation of a large number of resources.

You can create a resource definition that describes many similar, if not identical, resources by specifying those attributes that are common to all the resources. You can even specify attributes that apply to a remote instance of the resource along with the local attributes. CICSplex SM uses the appropriate subset of attributes as it assigns the local and remote resources to various CICS systems.



---

## Chapter 7. Using the Web User Interface to define CICS resources

The Web User Interface (WUI) supports actions to view, install, create, update and remove CICS resource definitions. The WUI includes a set of BAS resource definition views. You can use these as provided or as a basis for creating your own using the view editor as described in the *CICSplex System Manager Web User Interface Guide*.

To access resource definition views:

1. From the Web User Interface main menu, click **Administration views>Basic CICS resource definition views>CICS Resource definitions**<sup>1</sup> to open the menu **CICS resource definition views, for Business Application Services (BAS)** as illustrated in Figure 3 on page 16.

---

1. In the WUI, BAS functions are separated into basic and fully functional view menus. You can access **CICS Resource definitions** from either of these menus. See Chapter 11, "Accessing BAS administration views using the WUI," on page 51 for more information.

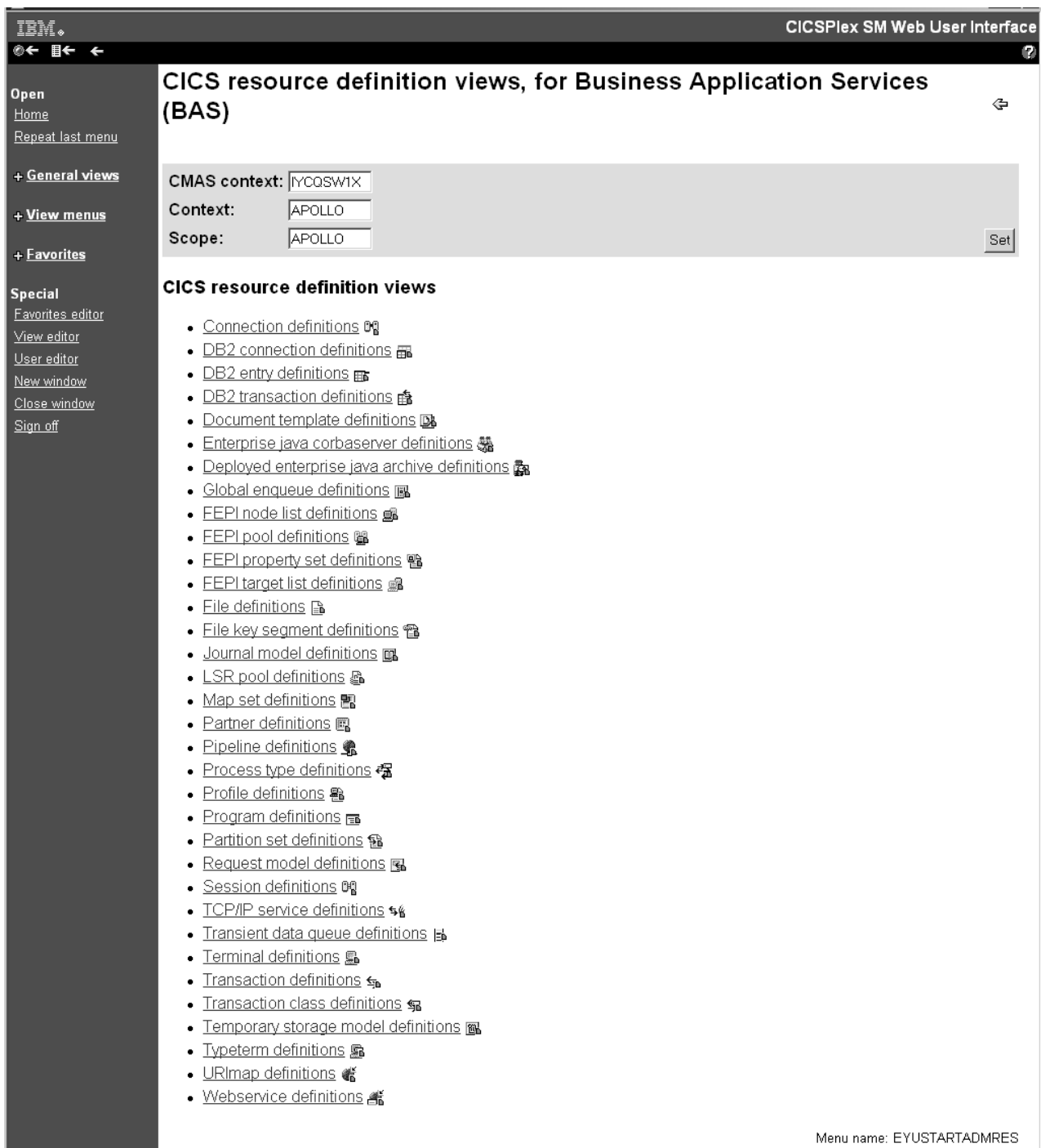


Figure 3. WUI resource definition menu

2. Select the required view from those listed to display a tabular view of existing resources. For example, in order to work with a CorbaServer definition, click **Enterprise java corbaserver definitions** from the list to display a **CorbaServer definition** tabular view similar to the one illustrated in Figure 4 on page 17.

IBM.

CICSplex SM Web User Interface

Open

Home

Repeat last menu

+ General views

+ View menus

+ Favorites

Special

Favorites editor

View editor

User editor

New window

Close window

Sign off

CorbaServer definition

EYUVC1280I 5 records collected at 2004/09/21 08:56:24.

Context: APOLLO

CorbaServer definition name: XBA\* Aa

Definition version:

Resource group name:

CICS system name:

Automatic refresh: 60 seconds.

Refresh

5 records on 1 pages.

Record	CorbaServer definition name	Definition version	Definition creation time	Last time the definition was changed	Definition description
1 <input type="checkbox"/>	XBA1	1	2004/09/14 14:36:38	2004/09/14 14:36:38	CPSMTEST CorbaServer Def A1
2 <input type="checkbox"/>	XBA1	15	2004/09/07 14:27:08	2004/09/07 14:27:08	CPSMTEST CorbaServer Def A1
3 <input type="checkbox"/>	XBA2	15	2004/08/05 15:09:28	2004/08/05 15:09:28	CPSMTEST CorbaServer Def A2
4 <input type="checkbox"/>	XBA3	15	2004/08/05 15:09:31	2004/08/05 15:09:31	CPSMTEST CorbaServer Def A3
5 <input type="checkbox"/>	XBA4	15	2004/08/05 15:09:35	2004/08/05 15:09:35	CPSMTEST CorbaServer Def A4

Create...

Update...

Remove...

Install...

Add to Resource group...

5 records on 1 pages.

Resource name: EJCODEF. View name: EYUSTARTEJCODEF.TABULAR

Figure 4. CorbaServer definition tabular view

- The next step depends on the action you intend to perform.
  - To update one or more resources, select the required record or records using the adjacent check boxes and click on the **Update** action button to display a resource definition view like the one in Figure 5 on page 18. This view is used for both the update and create actions.

**IBM. CICSPlex SM Web User Interface**

**CorbaServer definition**

Open  
Home  
Repeat last menu  
+ General views  
+ View menus  
+ Favorites  
Special  
Favorites editor  
View editor  
User editor  
New window  
Close window  
Sign off

CorbaServer definition name: XBA1  
 Definition version: 1  
 Definition description: ☐ CPSMTEST CorbaServer D Aa

Resource group name: Not applicable  
 User data area 1: ☐ CPSMTEST  
 User data area 2: ☐ AUTOMATE  
 User data area 3: ☐

Java naming directory (JNDI) prefix: ☐ JYCOSTPA Aa  
 Status: ☐ ENABLED ENABLED | DISABLED  
 Auto publish beans to Java naming directory (JNDI): ☐ NO  
 Session bean timeout (DDHHMM): ☐ 000000 Aa (000000-992359)  
 Hierarchical file system (HFS) shelf directory: ☐ /u/cts/CPSMTEST/automate Aa  
 CICS-deployed JAR file pickup directory: ☐ Aa

Server ORB attributes  
 TCP/IP host address: ☐ winmvs26.hursley.ibm.com Aa

Client ORB attributes  
 Secure sockets layer (SSL) client certificate: ☐ Aa

TCP/IP services  
 TCP/IP service for unauthenticated protocol: ☐ Aa  
 TCP/IP service for client certificated protocol: ☐ Aa  
 TCP/IP service for secure sockets layer (SSL) AUTHENTICATE=NO protocol: ☐ Aa  
 TCP/IP service for Asserted Identity protocol: ☐ Aa  
 SSL cipher suite codes: ☐

Outbound security  
 Outbound privacy: ☐ SUPPORTED

CICS TS V2R1 attributes  
 TCP/IP port number: ☐ 26011 (1-65535)  
 Secure socket layer (SSL) usage: ☐ NO  
 Secure socket layer (SSL) port number: ☐ NO (NO, 1-65535)

Figure 5. Detail from the CorbaServer definition view

Make the necessary updates to the displayed fields and use the **Yes** and **No** buttons to confirm or abandon the operation.

- To create a new CorbaServer definition, click the **Create** action button to display a new CorbaServer definition view. In this case you need to fill in all of the required fields.
- To remove one or more CorbaServers, select the required record or records using the adjacent check boxes and click the **Remove** action button. You are given the option to confirm or abandon the operation on each selected record.

## Common WUI resource definition actions

Each WUI resource definition view supports the following actions for creating and maintaining resource definitions:

### Add to resource group

To add a resource definition to a resource group.

**Create**

To create a resource definition and add it to the data repository.

**Install** To install a resource in one or more active systems. For details of valid systems, see the descriptions of the individual BAS objects.

**Remove**

To remove a resource definition from the data repository.

**Update**

To update a resource definition in the data repository.

You can update multiple resources in a single operation (equivalent to the EUI ALTER command) by selecting multiple entries from a resource definition tabular view before clicking **Update**

These actions and the views that result from them are similar for all the resource definition views that support them.

---

## Common WUI definition fields

The majority of the information in the create input views for each resource definition is unique to the type of resource. However, the following fields are common to the first input view for every resource definition:

**resource definition name**

The name of the resource definition.

The length and format of the name varies by resource type. For example, a program name can be up to 8 characters long, but a connection name can be only 4 characters long.

You must specify a name for the resource on the first input view before you can proceed to subsequent views. The resource name is shown at the top of each subsequent view, but you cannot modify it; you can specify a resource name only on the first view.

**Note:** The names of resource definitions are case-sensitive in CICSPlex SM.

**Definition version**

The version number of the resource definition.

You can specify one of the following:

- An integer in the range 1 through 15, or
- Blank or 0, in which case CICSPlex SM assigns the next available version number.

This can be blank, or an integer in the range 0 through 15.

**Note:** If you create a resource definition of the same resource type and with the same name as an existing definition, a new version of the definition is created in the data repository.

For a description of how CICSPlex SM handles the versioning of resource definitions, see “Multiple versions of a resource definition” on page 24.

**Definition description**

An optional string of up to 30 characters that describes the resource definition.

## common resource definition actions

### Resource group name

Optionally, the name of a resource group to which the resource definition should be added.

When the resource definition is created, it is automatically added to the specified resource group. This is one way of adding resource definitions to resource groups; others include:

- Using the ADD action from a resource definition view to add a single definition to a group, as described in “Adding resource definitions to a resource group” on page 44.
- Using the RES action from the RESGROUP view to add multiple definitions of a given resource type to a group, as described in “Adding resource definitions to a resource group” on page 375.

### User data area

Three optional strings of up to 8 characters each that allow you to provide additional site-specific data related to the resource definition.

You can use these fields for any purpose you choose; CICSplex SM makes no use of the data.

The create views for each resource and the resource-specific information that you must provide are presented in the description of the resource definition.

### Notes:

1. For any resource definitions that contain password fields, the password you enter does not appear on the create view while you are typing it.
2. For detailed information on CICS resource definitions, refer to the *CICS/ESA Resource Definition Guide*.



## Chapter 8. Using the end user interface to define CICS resources

You can access a resource definition view from the ISPF end user interface by doing any of the following:

- Issuing the MENU ADMRES command and selecting the view from the menu that is displayed. (The menu is shown in Figure 6.)
- Issuing the appropriate resource definition view command.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====CONTEXT==SCOPE=====27FEB2005==11:30:30=CPSM=====17=
CMD Name          Description
-----
ADMRES    Business Application Services Resource Views
CONNDEF   Connection Definitions
DB2CDEF   DB2 Connection Definitions
DB2EDEF   DB2 Entry Definitions
DB2TDEF   DB2 Transaction Definitions
DOCDEF    Document Template Definitions
EJCDEF    Enterprise Java CORBA Servers
EJDJDEF   Enterprise Java Deployed Archive
ENQMDEF   Global Enqueue Definitions
FENODDEF  FEPI Node List definitions
FEPODEF   FEPI Pool definitions
FEPRODEF  FEPI PropertySet definitions
FETRDEF   FEPI Target List definitions
FILEDEF   File Definitions
FSEGDEF   File Key Segment Definitions
JRNLDDEF  Journal Definitions
JRNMDDEF  Journal Model Definitions
LSRDEF    LSR Pool Definitions
MAPDEF    Map Set Definitions
PARTDEF   Partner Definitions
PRTNDEF   Partition Set Definitions
PROCDEF   Processtype Definitions
PROFDEF   Profile Definitions
PROGDEF   Program Definitions
RQMDEF    Request Model Definitions
SESSDEF   Session Definitions
TCPDEF    TCPIP Service Definitions
TDQDEF    Transient Data Queue Definitions
TERMDEF   Terminal Definitions
TRANDEF   Transaction Definitions
TRNCLDEF  Transaction Class Definitions
TSMDEF    Temporary Storage Model Definitions
TYPTMDEF  Typeterm Definitions
```

Figure 6. The ADMRES menu

For additional information about accessing views, see *CICSplex SM User Interface Guide*.

**Reminder:** Unless noted otherwise, only the context setting is recognized when you are creating and maintaining resource definitions. For additional information about setting the context, see *CICSplex System Manager User Interface Guide*.

The remainder of this chapter contains detailed descriptions of the resource definition views and the actions you can use with them to create and maintain CICS resource definitions.

---

## Common EUI resource definition actions

Each EUI resource definition view supports the following actions for creating and maintaining resource definitions:

**ADD** To add a resource definition to a resource group, as described in “Adding resource definitions to a resource group” on page 44.

**ALTER** To alter the attributes of multiple resource definitions of a given type, as described in Figure 9 on page 29.

**BROwse** To browse a resource definition in the data repository, as described in “Update a resource definition” on page 27.

**CREate** To create a resource definition and add it to the data repository, as described in “Creation of resource definitions” on page 25.

**INStall** To install a resource in one or more active systems, as described in Chapter 17, “Dynamic resource installation,” on page 87. For details of valid systems, see the descriptions of the individual BAS objects.

**REMOve** To remove a resource definition from the data repository, as described in “Remove a resource definition” on page 33.

**UPDate** To update a resource definition in the data repository, as described in “Update a resource definition” on page 27.

These actions and the panels that result from them are similar for all the resource definition views that support them. They are described in detail in the remainder of this section.

### Notes:

1. The resource definition views also support the MAP action command, which produces a visual map of the definitions in the data repository. For a complete description of this action command and the display it produces, see *CICSplex SM User Interface Guide*.
2. The TEMPMP action command is not supported for resource definition views. The maintenance point CMAS must be active when you are creating or maintaining resource definitions, or installing resources dynamically.

---

## Common EUI definition fields

The majority of the information in the create input panels for each resource definition is unique to the type of resource. However, the following fields are common to the first input panel for every resource definition:

**Name** The name of the resource definition.

The length and format of the name varies by resource type. For example, a program name can be up to 8 characters long, but a connection name can be only 4 characters long.

You must specify a name for the resource on the first input panel before you can proceed to subsequent panels. The resource name is shown at the top of each subsequent panel, but you cannot modify it; you can specify a resource name only on the first panel.

**Note:** The names of resource definitions are case-sensitive in CICSplex SM.

### Version

The version number of the resource definition.

You can specify one of the following:

- An integer in the range 1 through 15, or
- Blank or 0, in which case CICSplex SM assigns the next available version number.

This can be blank, or an integer in the range 0 through 15.

**Note:** If you create a resource definition of the same resource type and with the same name as an existing definition, a new version of the definition is created in the data repository.

For a description of how CICSplex SM handles the versioning of resource definitions, see “Multiple versions of a resource definition” on page 24.

### Description

An optional string of up to 30 characters that describes the resource definition.

### RESGROUP

Optionally, the name of a resource group to which the resource definition should be added.

When the resource definition is created, it is automatically added to the specified resource group. This is one way of adding resource definitions to resource groups; others include:

- Using the ADD action from a resource definition view to add a single definition to a group, as described in “Adding resource definitions to a resource group” on page 44.
- Using the RES action from the RESGROUP view to add multiple definitions of a given resource type to a group, as described in “Adding resource definitions to a resource group” on page 375.

### User Data

Three optional strings of up to 8 characters each that allow you to provide additional site-specific data related to the resource definition.

You can use these fields for any purpose you choose; CICSplex SM makes no use of the data.

The create panels for each resource and the resource-specific information that you must provide are presented in the description of the resource definition.

### Notes:

1. For any resource definitions that contain password fields, the password you enter does not appear on the create panel while you are typing it.
2. For detailed information on CICS resource definitions, refer to the *CICS/ESA Resource Definition Guide* (or the *Resource Definition (Online)* book) for the version of CICS you are running.

---

## Multiple versions of a resource definition

As your business applications progress from development through testing and into production, the resources that support them may evolve as well. Since resources that are defined to CICSplex SM exist independent of groups or other objects, versioning is necessary to support variations in resource definitions. This version support enables you to manage:

- A single version of a resource definition in multiple groups
- Multiple versions of the resource throughout the CICSplex.

For example, you can have three DB2TDEF definitions, each called DB2TR01, and each specifying a different (or the same) transaction IDs, each having a different version number.

Business Application Services can manage up to 15 versions of the same resource definition, each specifying the same or a different CICS resource.

When you create a resource definition, you can specify a version number for the definition. The version number is an integer in the range 1 through 15. If you leave the Version field blank, or if you specify 0 for the version number, then it is automatically assigned the first available version number.

The version number is assigned to the resource definition when the definition is stored in the CICSplex SM data repository.

CICSplex SM ensures that the version number is unique for the resource type of the definition.

### Notes:

1. CICSplex SM does not generate a new version when you update an existing resource definition.
2. As with the name field of the resource definition, the version field cannot be changed while browsing or updating a resource definition in a view. Furthermore, when creating a new resource definition, the version field, (also like the name field) can be entered on the input panel only of the create view.
3. When you create resource definitions using the batched repository-update facility, or the application programming interface (API), you can use the DEFVER keyword to specify the version number of a new definition.
4. CICSplex SM does not allow multiple versions of the same resource definition to be *installed* in a CICS system.

You can use version numbers to help identify a specific variant of a resource definition, providing you have a policy of using version numbers for that purpose. Otherwise, if you remove certain versions of a resource definition and then define new ones, the version number alone may not indicate the most recent version.

For example, suppose you define 15 versions of a resource definition (numbered 1 to 15) and then remove versions 3 and 12. The next time you create a new version of that resource definition, if you do not specify a version number, CICSplex SM reuses the available version numbers from low to high. So, in this example, the latest version of the resource definition might actually be version 3.

For this reason, the version number alone might not be sufficient to identify the latest version of a resource definition. To enable you to do that, CICSplex SM performs time-stamping, which provides a chronological record of the versions of a

resource definition. The date and time at which a given version of a resource definition was created and last updated are maintained by CICSplex SM in the CREATETIME and CHANGETIME attributes of the appropriate resource table. These values, are recorded using the time zone of the maintenance point CMAS, not the user who created or changed the definition. In addition, the values are fixed at the time they are recorded; they are not affected by any subsequent changes to the time zone of the maintenance point CMAS.

If you do not explicitly use the version number to identify particular versions, and you want to identify the last version created, you can either:

- Inspect the date and time fields
- Make explicit use of the user data fields of the definition when creating definitions. These fields are attributes of the resource definition, and can be used as filter criteria in the Install panels, of the **Resource assignment view** (WUI) or RASGNDEF command (EUI), and so on. For example, you could adopt a convention whereby the first user data field is designated as a control field, which may take either the value T (test) or P (production). To install the definition into a test system, USERDATA1=T would be used as the filter criterion.

---

## Availability for CICS releases

Details of the connectivity of CICS systems to releases of CICSplex SM are given in “CICS system connectivity” on page xiii.

However, some resources are not available in all of the supported CICS releases. An Availability section in the discussion of each resource definition view identifies the CICS releases for which the resource can be defined. In addition, the Action commands section in the discussion of each of these views specifies action commands (such as INStall) for which availability is more limited. The online help for views and action commands also provides availability information.

When you display a resource definition view and your CICSplex includes systems running a release of CICS for which that resource is not available, those systems are not included in the view. When you issue a resource definition view command and your CICSplex consists solely of systems running a release of CICS that is not available, a message is displayed. A message is also displayed when you issue an action command that is not available for the release of CICS on which your CICS system is running.

---

## Creation of resource definitions

When you create a resource definition, you are defining a resource to CICSplex SM. The resource definition is added to the CICSplex SM data repository and can be assigned to one or more CICS systems. In this way, the resource definition can be considered part of an application or logical scope. However, the actual resource is not known to any CICS system until it is installed, either automatically at system initialization or dynamically into an active system.

To create a resource definition and add it to the data repository, you can:

- Issue the CREate primary action command. The fields in the resulting input panels contain blanks or default values.
- Enter the CRE line action command next to the name of a definition you want to use as a model. The fields in the resulting input panels contain the values for that definition.
- Specify the attributes of the connection on the create definition panels.

Once you have defined the most common attributes for a given resource type, you can vary that definition for specific resources on a temporary or ongoing basis. If you provide override values for certain attributes, CICSplex SM can use a single resource definition to create resources with slightly different sets of attributes. You can vary the attributes of a resource definition when you:

- Associate the resource (as part of a resource group) with a resource description and assignment
- Install the resource individually
- Install the resource as part of a group

The CREate action command adds the resource definition to the CICSplex SM data repository. Keep in mind, however, that a resource definition is a static representation of resources in the data repository. Those resources become “real” to CICSplex SM only when they are assigned to one or more CICS systems.

**Note:** Resources become “real” to CICS when they are installed. CICSplex SM can install resources in a system running CICS/ESA 4.1 or later, as described in Chapter 14, “Installation of CICS resources,” on page 61.

Many of the resource definitions consist of a large number of attributes and multiple input panels are required to create them. Figure 7 is an example of the first input panel produced when you are creating a connection resource definition.

```
----- Create Connection Definition for EYUPLX01 Page 1 -----
COMMAND ==>
Name      ==>          Version ==> 0
Description ==>
RESGROUP  ==>
User Data ==>
AccessMethod ==> VTAM      Access Method (VTAM, INDIRECT, IRC, XCF, XM,
                             NETBIOS, TCPIP)
Attachsec  ==> LOCAL      Attach-time security
                             (LOCAL,IDENTIFY,MIXIDPE,PERSISTENT,VERIFY)
AutoConnect ==> NO        Autoconnect sessions to VTAM (NO,ALL,YES)
ConnType   ==> NOTAPPLIC Nature of connection (GENERIC, SPECIFIC,
                             APPC, NETBIOS, TCPIP, NOTAPPLIC)
Datastream ==> USER      Data stream type (USER,LMS,SCS,STRFIELD,3270)
IndirectSys ==>          Intermediate system name
Inservice  ==> YES        Connection status (YES,NO)
MaxQueTime ==> NO        Maximum queue time (NO, 0-9999, blank)
NetName    ==>          Network name
Protocol   ==> APPC       Protocol (APPC,EXCI,LU61,NOTAPPLIC)

Press ENTER to create CONNDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.
```

Figure 7. Creating a resource definition - Page 1

## Maintenance of resource definitions

As part of the ongoing maintenance of your CICSplex resources, it may be necessary to update existing resource definitions. You can update resource definitions in the CICSplex SM data repository by:

- Update the attributes of an individual resource definition using the update (UPD) action command.
- Browse a resource definition using the browse (BRO) action command.
- Update common attributes of multiple resource definitions using the alter (ALTER) action command.

- Remove a resource definition from the data repository using the remove (REM) action command.

## Update a resource definition

When you update a resource definition, you are changing an existing resource definition in the CICSplex SM data repository. Any changes you make affect the resource as it is assigned to various CICS systems; this, in turn, affects any logical scope or application that includes the resource. However, the resource that exists in active CICS systems is not affected when you update the resource definition. The actual resource will not match the updated resource definition until the next time it is installed, either automatically at system initialization or dynamically into an active system.

Every CICSplex SM resource definition view supports an UPDate action command, which enables you to update the attributes of a single definition that is currently displayed in a view. For example, to update a connection definition, you would:

1. Display the CONNDEF view.
2. Issue the UPD line action command next to the resource definition you want to update.
3. Modify the attributes of the connection on the Update Connection Definition panels.

The update panels for a resource definition are similar to the panels for creating a definition. When you update a resource definition, you are updating a specific version of the definition as it exists in the data repository. Any changes that you make have no immediate effect on CICS systems that are currently active. Changes to a resource definition take effect the next time the definition is installed in a CICS system (either dynamically or automatically at CICS initialization).

Figure 8 is an example of the first input panel produced when you are updating a resource definition.

```

----- Update Connection Definition for EYUPLX01 Page 1 -----
COMMAND  ==>
Name      C00A      Version  0
Description ==> System A Connection
Created   1/09/97  08:36   Changed   1/09/97  08:36
User Data ==>

AccessMethod ==> VTAM      Access Method (VTAM, INDIRECT, IRC, XCF, XM,
                           NETBIOS, TCPIP)
Attachsec    ==> LOCAL     Attach-time security
                           (LOCAL,IDENTIFY,MIXIDPE,PERSISTENT,VERIFY)
AutoConnect  ==> NO        Autoconnect sessions to VTAM (NO,ALL,YES)
ConnType      ==> NOTAPPLIC Nature of connection (GENERIC, SPECIFIC,
                           APPC, NETBIOS, TCPIP, NOTAPPLIC)
Datastream   ==> USER     Data stream type (USER,LMS,SCS,STRFIELD,3270)
IndirectSys   ==>          Intermediate system name
Inservice     ==> YES       Connection status (YES,NO)
MaxQueTime    ==> NO        Maximum queue time (NO, 0-9999, blank)
NetName       ==>          Network name
Protocol      ==> APPC      Protocol (APPC,EXCI,LU61,NOTAPPLIC)

Press ENTER to update CONNDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without updating.

```

Figure 8. Updating a resource definition - Page 1



**Note:** The update and browse panels for a resource definition are identical. Most of the fields in the update panels are modifiable; the fields in the browse panels are not.

The Name, Description, and User Data fields are the same fields that appear on the create panel, as shown in Figure 7 on page 26. The RESGROUP field that appears on the create panel does not appear when you are updating or browsing a resource definition. You can add a resource definition to a resource group when you create the definition, but not when you update it.

The update panels also contain some fields that do not appear on the create panels. These fields are not modifiable:

**Created**

The date and time at which the resource definition was created.

**Changed**

The date and time at which the resource definition was last updated.

**Notes:**

1. The Created and Changed values are recorded using the time zone of the maintenance point CMAS, not the user who created or changed the resource definition. In addition, these values are fixed at the time they are recorded; they are not affected by any subsequent changes to the time zone of the maintenance point CMAS.
2. For any resource definitions that contain password fields, the password is not displayed on the update panels. The field name appears highlighted to indicate a password exists; the field itself contains blanks. You can use the update panel to change or remove an existing password or add a new password for the resource definition.
3. Updating a resource definition that is associated with a resource group could result in inconsistent resource set errors. For information about this type of problem and how to resolve it, see “Validation of a set of resources” on page 37.
4. You cannot change the Name field or the Version field when you update a resource definition.

## Browse a resource definition

To browse a resource definition, enter the BRO line action command next to the definition you want to display.

The browse panels are similar to the panels used to create the definition; see Figure 9 on page 29.



```

----- Browse Connection Definition for EYUPLX01 Page 1 -----
COMMAND ==>
Name          C00A      Version  0
Description   ==> System A Connection
Created       1/09/97 08:36   Changed      1/09/97 08:36
User Data    ==>

AccessMethod ==> VTAM      Access Method (VTAM, INDIRECT, IRC, XCF, XM,
                           NETBIOS, TCPIP)
Attachsec    ==> LOCAL    Attach-time security
                           (LOCAL,IDENTIFY,MIXIDPE,PERSISTENT,VERIFY)
AutoConnect  ==> NO       Autoconnect sessions to VTAM (NO,ALL,YES)
ConnType     ==> NOTAPPLIC Nature of connection (GENERIC, SPECIFIC,
                           APPC, NETBIOS, TCPIP, NOTAPPLIC)
Datastream   ==> USER    Data stream type (USER,LMS,SCS,STRFIELD,3270)
IndirectSys   ==>         Intermediate system name
Inservice    ==> YES      Connection status (YES,NO)
MaxQueTime   ==> NO       Maximum queue time (NO, 0-9999, blank)
NetName      ==>         Network name
Protocol     ==> APPC     Protocol (APPC,EXCI,LU61,NOTAPPLIC)

Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel.

```

Figure 9. Browsing a resource definition - Page 1

**Note:** The update and browse panels for a resource definition are identical. Most of the fields in the update panels are modifiable; the fields in the browse panels are not.

The browse panels contain some fields that do not appear on the create panels:

**Created**

The date and time at which the resource definition was created.

**Changed**

The date and time at which the resource definition was last updated.

**Notes:**

1. The Created and Changed values are recorded using the time zone of the maintenance point CMAS, not the user who created or changed the resource definition. In addition, these values are fixed at the time they are recorded; they are not affected by any subsequent changes to the time zone of the maintenance point CMAS.
2. For any resource definitions that contain password fields, the password is not displayed on the browse panels. The field name appears highlighted to indicate a password exists; the field itself contains blanks.

## Alter multiple resource definitions

Every CICSplex SM resource definition view supports an ALTER action command, which enables you to update the attributes of multiple definitions at one time, regardless of whether those definitions are currently displayed in a view.

For example, to update several connection definitions that share common attributes, you would:

1. Display the CONNDEF view.
2. Issue the ALTER action command.
3. Complete the Alter CICS Resource panel.

The alter panel for resource definitions prompts you to:

- Identify the definitions to be updated by naming a resource group from which they should be selected and using a filter expression. A filter expression is a character string made up of logical expressions to be used in filtering resources.
- Specify the changes to be made by using an alter (or override) expression, which is a character string that identifies changes to be made to one or more resource attributes.

CICSplex SM attempts to apply the changes you specified to all of the resource definitions you identified at one time. If the changes cannot be applied to a given resource definition as specified, the update panels for that definition are displayed.

For example, the specified change might conflict with an existing attribute, or the modification of one field might require you to specify an attribute that was not needed previously. When the resource definition update panels appear, you are prompted to provide the necessary information that would allow the resource definition to be updated.

Provide the following information, as appropriate:

### Resource Group

(Optional) Enter the specific or generic name of an existing resource group from which the resource definitions are to be selected. If you enter a generic value, a list of valid resource groups is displayed.

### Filter string expression

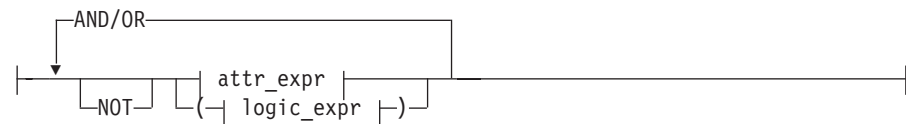
(Optional) Identify resource attributes that are to be used in selecting the definitions to be altered. CICSplex SM alters only those definitions that meet the specified filter criteria.

A filter expression can be made up of one or more attribute expressions in the form:

### Filter Expression

►► | logic\_expr | .

### logic\_expr:



### attr\_expr:

| attr\_op value

where:

*attr*

Is the name of an attribute in the resource table for the specified resource definition. You can name the same attribute more than once in a filter expression.

*oper*

Is one of the following comparison operators:

<      Less than  
<=     Less than or equal to

=	Equal to
>=	Greater than or equal to
>	Greater than
≠	Not equal to

**value**

Is the value for which the attribute is being tested. The value must be a valid one for the attribute.

If the attribute accepts character data, this value can be generic.

Generic values can contain:

- An asterisk (\*), to represent any number of characters, including zero. The asterisk must be the last or only character in the specified value. For example:

```
TRANID=PAY*
```

- A plus sign (+), to represent a single character. A + can appear in one or more positions in the specified value. For example:

```
TRANID=PAY++96
```

If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes. For example:

```
TERMID='Z AB'
```

To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October''s Payroll'
```

**AND/OR**

Combines attribute expressions into compound logic expressions using the logical operators AND and OR, like this:

```
attr_expr AND attr_expr.
```

Filter expressions are evaluated from left to right. You can use parentheses to vary the meaning of a filter expression. For example, this expression:

```
attr_expr AND (attr_expr OR attr_expr).
```

has a different meaning than this one:

```
(attr_expr AND attr_expr) OR attr_expr.
```

**NOT**

Negates one or more attribute expressions.

You can negate a single attribute expression, like this:

```
NOT attr_expr
```

You can also negate multiple attribute expressions or even a whole filter expression, like this:

```
NOT (attr_expr OR attr_expr).
```

Note that you must place parentheses around the attribute expressions (or the filter expression) to be negated.

To see a list of the attributes in the specified resource definition, type **FILTER** in the **COMMAND** field and press Enter.

### Alter string expression

Identify those attributes of the selected resource definitions whose values are to be altered.

An alter expression can be made up of one or more attribute expressions in the form:

#### Alter Expression



where:

*attr*

Is the name of a modifiable attribute in the resource definition.

*value*

Is the value to which you want the attribute set. The following restrictions apply:

- The value must be a valid one for the attribute.
- If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes, like this:

```
DESCRIPTION='Payroll.OCT'
```

- To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October's Payroll'
```

To see a list of attributes in the resource definition that can be modified, type MODIFY in the COMMAND field and press Enter.

When you press Enter, CICSplex SM first validates the information on this panel to ensure that:

- The fields specified in the alter expression are modifiable.
- The value specified for each field is valid.

The alter panel remains displayed while CICSplex SM attempts to alter the selected resource definitions.

If CICSplex SM detects an error while attempting to alter a specific resource definition, the alteration process is suspended and the update panel for that resource is displayed. The panel includes an error message that describes the problem and the cursor is positioned on the field that is in error. When the resource definition update panel appears, you can:

- Make the necessary changes to the resource definition and press Enter. CICSplex SM resumes the alteration process.

For each additional error that is detected, the update panel is redisplayed, until all the resource definitions have been successfully altered.

- Issue the END or CANCEL command to cancel the alteration process. You are returned to the view where you issued the alter request.

**Attention:** If you cancel the alteration process, there is no record of the definitions that were altered or the errors that were encountered. Any resource definitions that were successfully processed are saved in

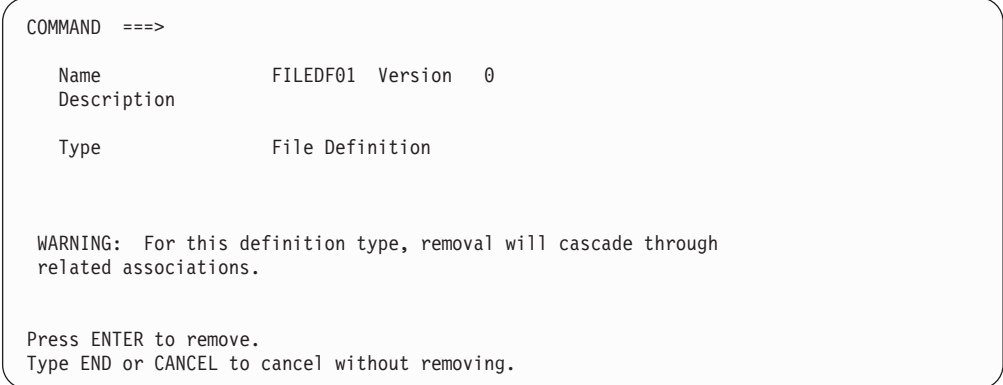
the data repository with the specified alteration. No additional resource definitions are processed.

When CICSplex SM finishes altering the selected resource definitions, you are returned to the view where you issued the alter request.

## Remove a resource definition

You can use the REMove action command to remove a resource definition from the CICSplex SM data repository.

Figure 10 shows the format of the panel produced when you issue the remove primary (REMove) or line (REM) action command from a resource definition view.



```

COMMAND ==>

      Name          FILEDF01  Version  0
      Description
      Type          File Definition

WARNING: For this definition type, removal will cascade through
related associations.

Press ENTER to remove.
Type END or CANCEL to cancel without removing.

```

Figure 10. Removing a resource definition

From this panel you can verify which resource definition is being removed:

**Name** The name of the resource definition being removed.

**Version**

The version of the resource definition being removed.

**Description**

A description of the resource definition being removed, if one was specified.

**Type** The type of resource definition being removed.

Press Enter to remove the resource definition from the CICSplex SM data repository. To cancel the remove action, type END or CANCEL; the resource definition remains in the data repository.

---

## Links between CICS systems

In addition to defining individual CICS resources, you can use CICSplex SM to define and manage the communication links between CICS systems. Rather than identifying each CICS system in a communication network to each of its partners (as RDO requires), you can specify general connectivity information to be used by all the CICS systems in a CICSplex.

For example, to define a communication link between two CICS systems using RDO, you specify:

**CICS System A**  
**CICS System B**

## defining links between CICS systems

**CONNECTION(SYSB)...**  
CONNECTION(SYSA)...

**SESSION(S0AB)...**  
SESSION(S0BA)...

In other words, for each pair of CICS systems that are to communicate you need four definitions – two connections and two sessions. And each connection and session definition is unique to a given pair of CICS systems. They cannot be reused for different communication links.

With Business Application Services, on the other hand, you create one system link (SYSLINK) for each pair of CICS systems. The system link definition refers to one connection definition and one session definition that describe the nature of the link. And those connection and session definitions can be used by any number of system links that share the same characteristics.

Figure 11 illustrates the resource definitions that are required for CICSplex SM to interconnect three CICS systems. In this example, the total number of definitions is five, rather than the 12 definitions that would be required by RDO.

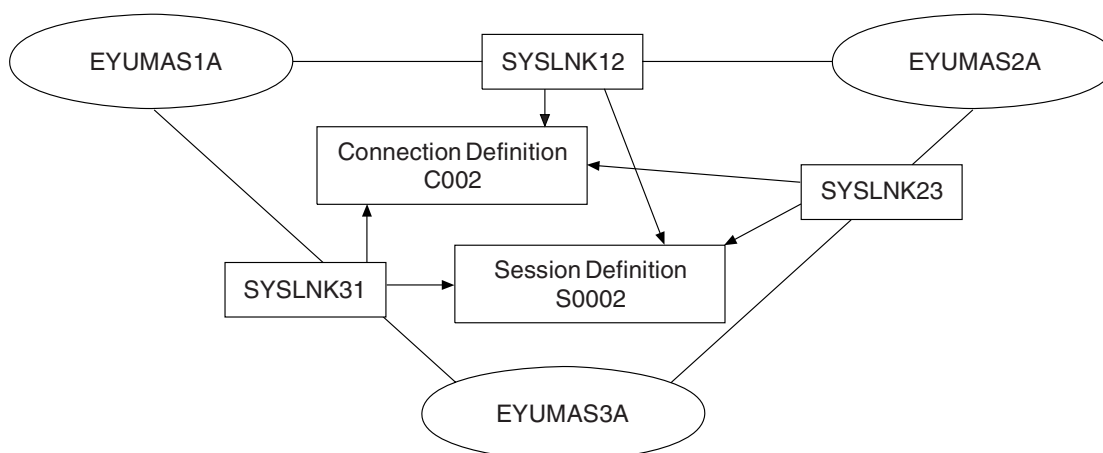


Figure 11. An example of defining communication links

To define links between the CICS systems in a CICSplex, you would:

1. Define the CICS systems to CICSplex SM.  
Use the CICSSYS view to identify all of the CICS systems you want to connect. Of course, if you are already using CICSplex SM, you have already identified your CICS systems. CICSplex SM uses the CICS system ID (SYSIDNT) you specify to identify the system link.
2. Define the connections and sessions.  
Use the CONNDEF view to create connection definitions for each type of system link you want to create (such as APPC or EXCI). Similarly, use the SESSDEF view to create an appropriate session definition for each connection. Both connection and session definitions are required for each type of system link in your network.

**Note:** When defining MRO links it is advisable to set the SESSDEF receive and send prefixes to (< and >). If you define your own receive and send

prefixes, you must create a SESSDEF for each SYSLINK to avoid duplicate session names being created.

### 3. Define the system links.

With the names and system IDs of your CICS systems and the appropriate connection and session definitions in place, CICSplex SM is ready to generate the connections required to link those systems. To define system links, you can:

#### Use the Model System field on CICSSYS

The Model System field allows you to use the existing system links of one CICS system as the model for another system's links. New system links are defined with the same relationships that exist for the model system. This might be useful for a CICS system with a large number of links (such as a TOR in a TOR-to-AOR network).

#### Use the CICSSYS CON action command

The CON action command allows you to use the system links of an existing CICS system as the model for another CICS system. Using the CON action command has the same effect as specifying a Model System when the CICS system is created or updated.

#### Use the CICSSYS GEN action command

The GEN action command is useful when you want to migrate the RDO system link definitions found in a set of active CICS systems to the CICSplex SM data repository. You are prompted to identify the connection and session definitions for each type of system link found in the network.

#### Use the SYSLINK CREate action command

The CREate action command can be used to define an individual system link to CICSplex SM. You have to identify the connection and session definitions to be used for the link.

Figure 12 provides an overview of the end-user interface views used to define links between CICS systems.

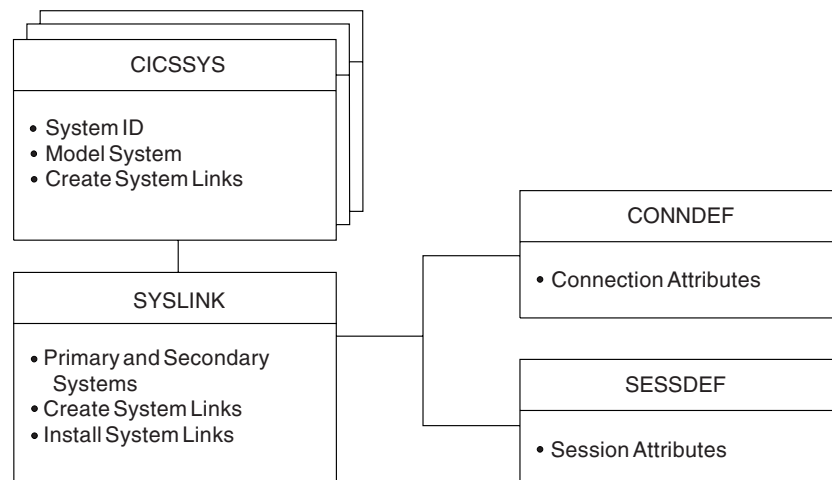


Figure 12. Views for defining links between CICS systems

### Resource definition validation

CICSplex SM performs many of the same resource definition checks as RDO does. But CICSplex SM goes further, attempting to validate whole sets of resources associated with the CICS systems in your CICSplex.

### Validation of individual resource definitions

As individual resources are defined or installed, CICSplex SM checks:

#### Individual attributes of a resource

Each attribute of each resource definition is validated independently according to the CICS RDO guidelines for valid values. CICSplex SM reports individual attribute errors as a resource is defined. A resource definition is not created and stored in the data repository until all of its attributes are valid.

#### Notes:

1. If you specify blank spaces for an attribute, CICSplex SM allows CICS to assign a default value, if there is one.
2. If you specify N/A for an attribute, CICSplex SM processes the resource definition as if that attribute was not specified. Depending on what other attributes were specified, CICSplex SM either ignores the attribute or selects an appropriate value according to the CICS RDO guidelines.

#### Interdependent resource attributes

Certain attributes of a resource definition may be dependent upon each other. For example, CICS may require that you specify a value for Attribute B if you specify one for Attribute A. Or if you specify a certain value for Attribute A, CICS may limit the values that are valid for Attribute B.

Such attribute combinations are validated using the CICS RDO guidelines. CICSplex SM reports attribute combination errors as a resource is defined. A resource definition is not created and stored in the data repository until all of its interdependent attributes are resolved.

#### Release-specific resource attributes

Because a resource may be used by a number of CICS systems, you can specify the whole range of possible attributes when you define the resource to CICSplex SM. However, when that resource is installed in a given CICS system, CICSplex SM checks for and uses only those attributes that are appropriate to the release of CICS. CICSplex SM keeps track of obsolete resource attributes from earlier releases of CICS just as RDO does.

For example, you could define a transaction to be used in both CICS/ESA 4.1 and later releases. When you install the transaction in a CICS/ESA 4.1 system, CICSplex SM discards any attributes that are obsolete for that release. When that same transaction is installed in a CICS TS for OS/390 Release 1.3 system, the attributes appropriate to that release are retained.

**Note:** CICSplex SM attempts to validate attribute values in such a way that the resource definition can be used with as many levels and platforms of CICS as possible. However, because of the wide variety and interdependency of resource attributes across releases of CICS, CICSplex SM may not be able to catch all potential attribute conflicts. So even if CICSplex SM does not detect a problem, a particular release of CICS may fail a given resource installation



request. For information on resource installation problems, see “Handling dynamic installation errors in the EUI” on page 96.

### Validation of a set of resources

Maintaining a consistent set of resources for each system is an integral part of managing CICS resource definitions. When you ask CICSplex SM to:

- Add or update a resource definition in a resource group
- Add a resource group in description
- Update a resource description
- Update a resource assignment
- Add or update a resource assignment in a description
- Add a CICS system to a CICS system group

the requested changes are checked against the existing resource set for each affected CICS system. CICSplex SM flags a resource set as inconsistent if a resource being added or updated (referred to as the *candidate* resource) is in conflict with a resource that already exists in the CICS system.

For example, you would receive inconsistent resource set errors if you tried to:

- Assign different versions of the same resource to the same CICS system
- Assign a resource to the same CICS system as both local and remote

#### Notes:

1. A DB2EDEF that has a transaction id specified can create both a DB2NTRY and a DB2TRN operational object when the DB2EDEF is installed (see Chapter 24, “DB2 entry resource definitions,” on page 151). Therefore, you may get inconsistent set errors because two or more DB2EDEFs have the same transaction id specified, or clash with an explicitly defined DB2TDEF that has the same name as that generated from a DB2EDEF, which would cause a conflict.
2. You can change the value of selected BAS objects using the Override field a RASGNDEF object, as described on page 345. If you use this method to change the Transid field of a DB2EDEF and there is a resulting clash of names of DB2TRAN objects, CICSplex SM does not detect this fact as part of inconsistent set processing.

If any of the resource definition changes you request would result in an inconsistent set of resources for a CICS system, a panel like the one shown in Figure 13 is displayed.

```
COMMAND ==>                                Scroll ==> PAGE
These systems had errors.  Select them to see details of the errors.

C System
- -----
_ EYUMAS1A

***** BOTTOM OF DATA *****
```

Figure 13. A list of CICS systems with inconsistent set errors

The Systems with Errors panel indicates one or more errors occurred while CICSplex SM was attempting to update the resource sets for the specified CICS systems. To display a list of the errors encountered by a CICS system, type an S (for Select) to the left of the system name. You can select more than one CICS system at a time.

## how CICSplex SM validates resource definitions

When you press Enter, the list of inconsistent resource set errors for the first CICS system you selected is displayed. Figure 14 shows a sample list of inconsistent resource set errors.

COMMAND ==>
Errors found for EYUMAS1A
Scroll ==> PAGE
ResName Ver Resgroup Assignmt Descript Usage SysGroup SysType Ovr
TRANDEF ET01 1 EYUBAG02 EYUBAA01 New def LOCAL TARGET NO
EXISTING ET01 1 EYUBAG02 EYUBAA01 Old def ASIS TARGET NO
\*\*\*\*\* BOTTOM OF DATA \*\*\*\*\*

Figure 14. A list of inconsistent resource set errors

The title of this panel indicates what you were trying to do when resource inconsistencies were detected. For example, the title in Figure 14 is “Update RASGNDEF Errors”. That means changes you made when updating a resource assignment resulted in the inconsistent resource set errors.

The remainder of Figure 14 shows a list of the resource pairs (candidate and existing) that are in conflict. The following information is provided for each pair:

### ResType

The type of resource.

### ResName

The name of each resource.

In most cases, the names of the candidate and existing resources are the same. However, in the case of remote resources (where the SysType field shows RELATED), it is possible that the conflict is between resource aliases or a real name and an alias in the same CICS system. In that case, the ResName may actually be different for the candidate and existing resources.

**Ver** The version of each resource.

### Resgroup

The name of the resource group to which the candidate or existing resource belongs.

### Assignmt

The name of the resource assignment with which the candidate or existing resource is associated, if any.

### Descript

The name of the resource description with which the candidate or existing resource is associated.

**Usage** How the candidate or existing resource is defined in the resource assignment:

#### LOCAL

A resource that resides in the target CICS system.

#### REMOTE

A resource that is defined to the target system, but resides in a different system.

## how CICSplex SM validates resource definitions

**ASIS** A resource that is part of a resource group directly associated with a resource description (via a RESINDSC definition); it is not associated with an assignment.

**SysGroup**

The name of the CICS system group to which the CICS system belongs.

**SysType**

The type of CICS system to which the candidate or existing resource is being assigned:

**TARGET**

The CICS system in which a local resource actually resides.

**RELATED**

The CICS system in which a resource defined as remote to one system actually resides.

**Ovr** Whether the candidate or existing resource assignment includes any override values.

When you press Enter or issue the END or CANCEL command, the list of errors for the next CICS system you selected is displayed. When the errors for all the CICS systems you selected have been displayed, you are returned to the view where you entered the add or update command.

**Attention:** When you issue END or CANCEL to exit the list of CICS systems that experienced inconsistent set errors, that list is deleted and cannot be recreated.

## Validation CICS system assignments

CICSplex SM manages where resources are assigned by validating the target and related scope values that you specify. When you ask CICSplex SM to:

- Update a resource description
- Update a resource assignment
- Add or update a resource assignment in description
- Add a CICS system to a CICS system group

the requested changes are checked to ensure that the target and related scope values are not in conflict with each other. CICSplex SM flags the target and related scopes as inconsistent if:

- There is any overlap between the two (for example, the same CICS system is in both scopes)
- The related scope is anything other than a single CICS system for which a system ID is defined

If any of the changes you request would result in inconsistent scopes, a panel like the one shown in Figure 15 on page 40 is displayed.

## how CICSplex SM validates resource definitions

COMMAND ==>						Scroll ==> PAGE	
Target Scope	Target Assignmt	Target Descript	Related Scope	Related Assignmt	Related Descript	Cicsname	Error Code
EYUCSG01	EYUBAA02		EYUMAS1A	EYUBAA02		EYUMAS1A	CicsName in Both
EYUCSG01	EYUBAA02		EYUMAS1B	EYUBAA02		EYUMAS1B	CicsName in Both
EYUCSG01	EYUBAA02		EYUMAS2A	EYUBAA02		EYUMAS2A	CicsName in Both
***** BOTTOM OF DATA *****							

Figure 15. A list of inconsistent scope errors

The title of this panel indicates what you were trying to do when CICSplex SM detected scope inconsistencies. For example, the title in Figure 15 is “Update RASGNDEF Errors”. That means changes you made when updating a resource assignment resulted in the inconsistent scope errors.

The remainder of Figure 15 shows a list of the target and related scopes that are in conflict. The following information is provided for each CICS system or system group that would result in inconsistent scopes:

### Target Scope

The name of the CICS system or CICS system group that you specified as the target scope.

### Target Assignmt

The name of the resource assignment associated with the target scope.

### Target Descript

The name of the resource description associated with the target scope.

### Related Scope

The name of the CICS system or CICS system group that you specified as the related scope.

### Related Assignmt

The name of the resource assignment associated with the related scope.

### Related Descript

The name of the resource description associated with the related scope.

### Cicsname

The name of a CICS system that is common to both the target and related scopes.

### Error Code

A CICSplex SM error code that describes the condition that would result in inconsistent scopes. The error code will be one of the following:

#### CicsName in Both

The same CICS system is contained in both the target and related scopes.

#### Multi in Related

The related scope consists of more than one CICS system.

#### No SYSID for Rel

The related scope is a CICS system for which no system ID was defined to CICSplex SM.

## how CICSplex SM validates resource definitions

### **Related in Target**

The related scope is a CICS system or CICS system group that is contained within the target scope.

### **Same Scopes**

The target and related scope values are the same.

### **Target in Related**

The target scope is a CICS system or CICS system group that is contained within the related scope.

When you issue the END or CANCEL command, you are returned to the view where you entered the add or update command.

**Attention:** Once you exit a list of inconsistent scope errors, that list is deleted and cannot be recreated.

## how CICSplex SM validates resource definitions

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## Chapter 9. Resource definition sets

The resource definitions you create can be members of *resource groups*. Resource groups can, in turn, be associated with *resource descriptions* and *resource assignments*. Resource groups, resource descriptions and resource assignments are convenient mechanisms for managing sets of resource definitions in ways that are appropriate to your enterprise.

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### Resource groups

A resource group can be any set of resource definitions that you want to manage as a unit. The resources in a group usually have something in common. They might be logically related by their use in a given application or communications network, or geographically related by their use at a given site.

A resource group can contain resource definitions of all types (such as connections, files, and journals). There is no real limit to the number or combination of resource definitions that can make up a group. However, only one version of a given resource can be included in a resource group at one time. You can maintain multiple versions of a resource definition in different resource groups, but not in the same group.

When you use the GET API command to create a result set of CICS Definition records, you can limit your request to definitions in a given resource group. The GET command for each CICS Definition object (such as CONNDEF) supports the following parameter:

#### **RESGROUP(resgroup)**

(Optional) Specify the name of an existing resource group from which CICS Definition records should be selected.

You create resource groups by using the CREate action command from the RESGROUP view (EUI) or by clicking the **Create** button in the Resource groups WUI view. This action adds the resource group to the CICSplex SM data repository.

You can also create a resource group using the CREATE command in the batched repository-update facility or the API. In that case, you can identify an existing resource group to be used as a model. The CREATE command for the RESGROUP object accepts the following parameters:

#### **MODEL(resgroup)**

(Optional) Specify the name of an existing resource group whose resource definitions are to be used by the new group.

#### **MODE(option)**

(Required, if you specified a MODEL value) Indicate which definitions are to be copied from the model resource group to the new group:

**NO** Do not copy any definitions from the model group.

#### **ASSOCIATIONS**

Copy the associations between resource definitions and the model group (RESINGRP definitions) and create a new set of associations from the existing resources to the new group.

### MEMBERS

Copy all the resource definitions in the model group and create a new set for use by the new group.

**Note:** For a complete description of the RESGROUP view, see “Action commands” on page 167.

You can manage resource groups independently, but the real advantage comes in associating them with one or more resource descriptions or resource assignments.

## Adding resource definitions to a resource group

There are several ways to create an association between a resource definition and a resource group. Both definitions must exist in the CICSplex SM data repository before you can create the association:

### Adding a definition when it is created

You can automatically associate a resource definition with a resource group when the definition is created by identifying the group in the **Resource group name** (WUI) or RESGROUP (EUI) field. This is a standard field on the create panel for each resource type.

When you create CICS Definitions using the batched repository-update facility or API you can add them to an existing resource group by using the RESGROUP parameter. The CREATE command for each CICS Definition object (such as CONNDEF) supports the following parameter:

#### RESGROUP(resgroup)

(Optional) Specify the name of an existing resource group to which the CICS Definition should be added.

### Adding individual or multiple definitions

- In the WUI you can add one or more existing resource definitions *of a given type* to a group by selecting the definition or definitions on a resource definition tabular view and clicking the **Add to resource group** button.
- In the EUI you can add existing resource definition to a group one at a time by using the ADD action command from a resource definition view.
- Also in the EUI you can add multiple resource definitions *of a given type* to a group by using the RES action command from the RESGROUP view:
  1. Display the RESGROUP view.
  2. Issue the RES action command with a resource type in the Restype field.
  3. Select resource definitions from the Add Resource to RESGROUP list.

When you issue the RES action command, you can limit the list of resource definitions that are displayed by specifying:

- A version number in the ResVer field
- A generic resource name in the Pattern field

### Using a model resource group

Once a resource group is defined and populated with resource definitions, you can use that group as a model to populate other resource groups.

When you create a new resource group, you have the option of specifying:

- A resource group whose resource definitions are to be used as a model by the newly created group.
- Which definitions are to be copied from the model group:



- The actual resource definitions (to create an additional set of resources)
- The associations between the model group and existing resources

**Note:** Adding a resource definition to a resource group could result in inconsistent resource set errors. For information about this type of problem and how to resolve it, see “Validation of a set of resources” on page 37.

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## Resource assignments

A resource assignment identifies resources of a given type that are to be assigned to one or more CICS systems as either local or remote. Rather than representing a whole set of resources (as resource groups and descriptions do), the purpose of a resource assignment is to selectively process the resources in a set. With a single resource assignment, you can:

- Select specific resources from a resource group.
- Identify the CICS systems where local and remote instances of a resource should be assigned.
- Modify resource attributes for specific uses in specific CICS systems.

To create resource assignments:

- In the WUI:
  1. Click **Administration views**—>**Main administration views**—>**Resource assignment** to open the **Resource assignment definition** view.
  2. Click the **Create** button
  3. Complete the create panel.
- In the EUI, use the CREate action command from the RASGNDEF view:
  1. Display the RASGNDEF view.
  2. Issue the CREate primary or line action command.
  3. Complete the Create Resource Assignment panels.

This adds the resource assignment to the CICSplex SM data repository.

The resources selected by a resource assignment cannot be managed independently. The resources must be members of a resource group and the resource assignment must be associated with at least one resource description.

For a complete description of the RASGNDEF view, see Chapter 54, “RASGNDEF (resource assignments) view,” on page 345. For information on using resource assignments to manage CICS resources, see “Controlling resources by resource assignment” on page 48.

---

## Resource descriptions

Similar to a resource group, a resource description represents a set of logically related resources. You can associate whole resource groups with a resource description to create a larger set of resources that can be managed more efficiently. In addition, you can associate resource assignments with a resource description to create a select set of resources, such as an application that spans more than one CICS system.

A resource description represents the largest set of resources that can be managed as a unit by CICSplex SM. It might consist of all the resources in several resource groups or resource assignments (much like a CSD group list) or the set of resources that make up a given application on various CICS systems.

## creating sets of resource definitions

The set of resources identified in a resource description can be:

- Identified as a logical scope (such as an application) for use in subsequent CICSplex SM requests
- Automatically or dynamically installed in systems running CICS/ESA 4.1 or later

To create a resource description and add it to the CICSplex SM data repository.:

- In the WUI:
  1. Click **Administration views**—>**Main administration views**—>**Resource descriptions** to open the **Resource description definition** view.
  2. Click the **Create** button.
  3. Complete the create panel.
- In the EUI, use the CREate action command from the RESDESC view:
  1. Display the RESDESC view.
  2. Issue the CREate primary or line action command.
  3. Complete the Create Resource Description panels.

For a complete description of the RESDESC view, see Chapter 58, “RESDESC (resource descriptions) view,” on page 367. For information on using resource descriptions to manage CICS resources, see “Controlling resources by resource description” on page 47.

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## Chapter 10. Management of CICS resources using CICSplex SM

With Business Application Services, the most important decision you have to make is how to manage the sets of resources you create:

- By resource descriptions alone; see “Controlling resources by resource description”
- By resource assignments in conjunction with resource descriptions; see “Controlling resources by resource assignment” on page 48

You can use one or both of these approaches to control your CICS resources, depending on the situation and the degree of precision you require. Resource descriptions alone represent the simplest approach to managing resources. Using resource assignments provides access to the full range of Business Application Services features.

---

### Controlling resources by resource description

The simplest way to manage sets of resources is to associate resource groups directly with a resource description. To do this you would:

1. Create resource groups and add resource definitions to them.
2. Create a resource description (or identify an existing one) that you want to associate the resource groups with.  
  
Use the **Resource group scope name** (WUI) or ResGroup Scope (EUI) field on the resource description to identify a CICS system or CICS system group where all the resources in the groups should be assigned.
3. Use the **Add to resource description** button on the **Resource group definition** view (WUI) or ADD action command from the RESGROUP view (EUI) to associate one or more resource groups with the description. This creates a resource group-in-description link record (RESINDSC).

The result is that all of the resources in the resource groups are assigned to the specified CICS systems exactly as they were defined to CICSplex SM. This is similar to the way in which RDO processes the definitions in a CSD group list.

As with RDO, this simple approach to managing your resources requires separate resource definitions for each element of a resource. So assigning a resource that is local to one CICS system and remote to another would require two resource definitions. And the resources represented by a resource description are more likely to be physically related by the CICS systems where they reside than by any logical function such as an application.

Directly associating entire resource groups with a resource description is in keeping with the basic object model used by other CICSplex SM components (such as Workload Manager). And this approach is sufficient for using Business Application Services in a manner similar to RDO. However, this can also be viewed as an interim step on the way to complete management of your CICS resources with the use of resource assignments.

---

## Controlling resources by resource assignment

Resource assignments are a departure from the basic CICSplex SM object model of definitions, groups, and descriptions (or specifications). They add a significant degree of flexibility and control to the resource definition process. And they increase the precision with which you can manage the resources in your CICSplex.

Once you have gathered resource definitions into resource groups, you can use resource assignments to:

- Control resources of a given type in a given group. Each resource assignment applies to one type of resource (such as files) in one resource group.
- Identify resources as either local or remote and assign them to various CICS systems with a single resource definition. Local resources are assigned only to those CICS systems identified as target systems. Remote resources are assigned as remote to the target systems; they are also assigned as local resources to the related system you identify.
- Process selected resources from a group by specifying a filter expression. A filter expression is a character string made up of logical expressions to be used in filtering resources (such as resources whose names begin with PAY).
- Modify resource attributes for a particular use by specifying override expressions. An override expression is a character string that identifies changes to be made to one or more attributes of a resource when it is assigned to a given CICS system.

To take full advantage of Business Application Services, you should associate your resource groups with resource assignments and your assignments with a resource description. To do this, you would:

1. Create resource groups and add resource definitions to them.
2. Create one resource assignment for each type of resource you want to manage.

Use the **Resource group name**, **Target scope name** and **Related scope name** fields (WUI) or ResGroup, Target, and Related fields (EUI) on each resource assignment to identify resource groups and the CICS systems to which they should be assigned.

You can also use a filter string expression to select resources from a group and an override string expression to modify specific resource attributes.

3. Create a resource description (or identify an existing one) that you want to associate the resource assignments with.

In this approach, the resource description is really a means of grouping the resource assignments for various resources into a meaningful set, such as an application. The selection and assignment of resources are ultimately controlled by the resource assignments.

4. Use the **Add to resource description** button from the **Resource assignment definition** view (WUI) or the ADD action command from the RASGNDEF view (EUI) to associate the resource assignments with the resource description. This creates a resource assignment-in-description link record (RASINDSC).

Note that the same resource assignment can be associated with more than one resource description, just as the same resources are generally used by more than one application.

Depending on the resource assignment values, some or all of the resources in the resource groups may be assigned as local or remote resources in multiple CICS systems.

---

## Using logical scopes to control application resources

Business Application Services enables you to monitor and control CICS resources according to their purpose and logical relationships within your enterprise. For example, rather than viewing the resources in one or more CICS systems or CICS system groups, you can display all the resources that are currently defined as being part of a business application. This allows you to specify a logical scope for CICSplex SM requests, rather than a physical scope that is location-dependent and subject to change.

A business application can be any set of resources that represent a meaningful entity to the users in your enterprise. The resources can exist in any CICS system in the CICSplex. If the resources are defined to CICSplex SM, Business Application Services can locate them and manage them regardless of what platform or release of CICS they are defined to.

For a business application to be recognized by CICSplex SM, you must assign it a logical scope name in a resource description. When you create a resource description, you identify the resource definitions that make up your application and the CICS systems with which the application should be associated.

**Note:** The concept of a business application is independent of the CICSplex SM resource installation capabilities. Even CICS systems that do not support resource installation can be included in a business application to be managed by CICSplex SM.

To identify a set of resources as an application, you must:

1. Define the resources to CICSplex SM using the Business Application Services resource definition views.
2. Create one or more resource groups (RESGROUP) and add the resource definitions to them.
3. Create a resource description (RESDESC) and specify a name to be used as the logical scope.
4. Decide how you want the resource definitions to be processed and then do one of the following:
  - Associate the resource groups directly with the resource description (via RESINDSC).
  - If you want to further qualify the set of resource definitions, associate the resource description with a resource assignment (RASGNDEF).

Once an application has been identified to CICSplex SM as a logical scope, you can specify that name on any CICSplex SM end-user interface or API request that honors a scope value.

**Note:** A logical scope name is not a valid scope for resources that cannot be defined by BAS (such as system dump codes). However, a logical scope name is valid for **CICS Regions** (CICSRGN) and **Runtime MAS display** (MAS) views, which will display the regions that may contain resources in the named logical scope.

using logical scopes

## Chapter 11. Accessing BAS administration views using the WUI

In the WUI BAS functions are separated into basic and fully functional view menus. To access BAS functions from the WUI main menu click **Administration views**.

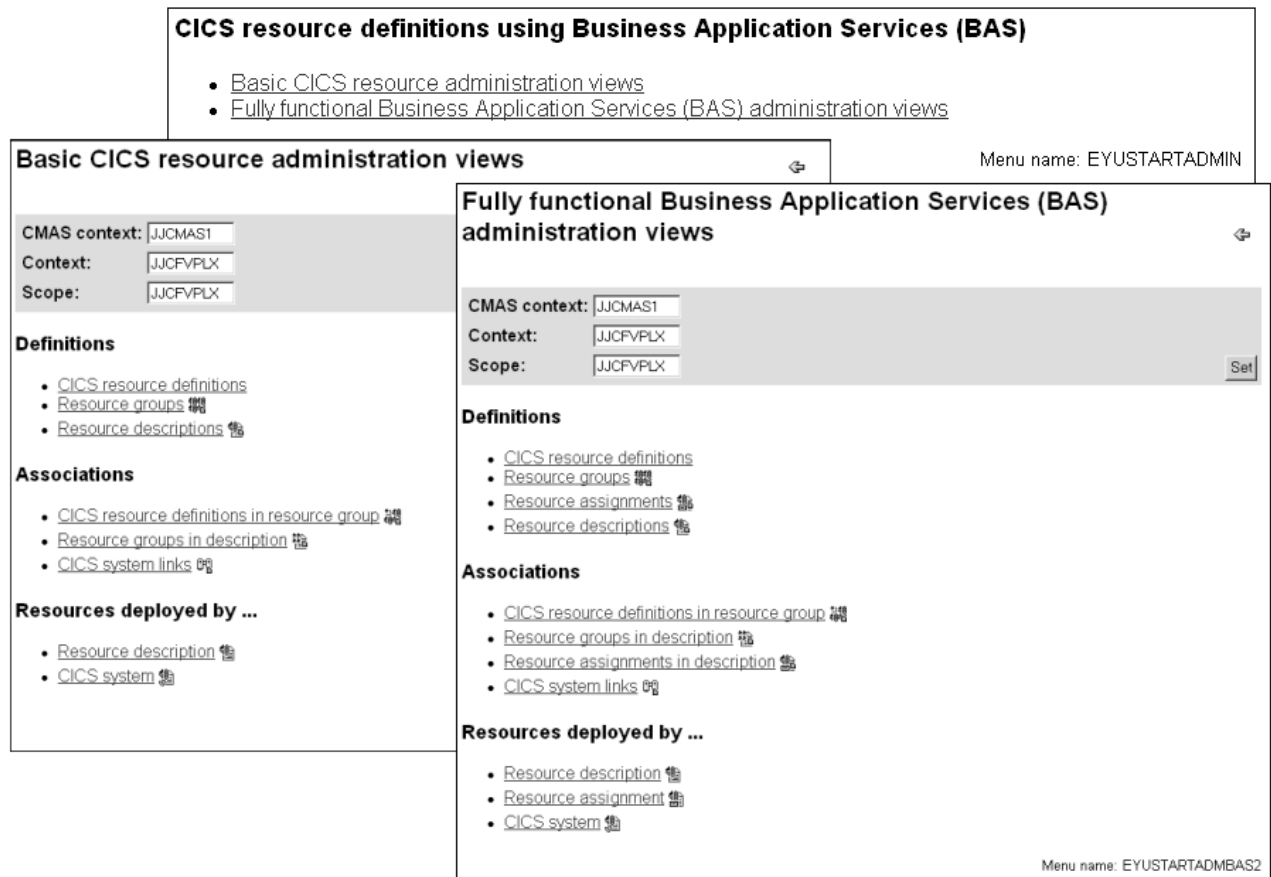


Figure 16. Detail of CICS resource definition BAS menus

At the bottom of the **Administration views** menu are two sub-menus:

### Basic CICS resource administration views

This provides a simplified RDO-like model of BAS including resource definitions, resource groups and resource descriptions but not resource assignments.

### Fully functional Business Application Services (BAS) administration views

In addition to the basic model this also includes links to resource assignment views aimed at more advanced users. This adds more power and flexibility to the management of resource definitions. See “Controlling resources by resource assignment” on page 48 for more information about resource assignments.

Links from both sub-menus are split into three groups:

#### Definitions

Includes the following links:

**CICS resource definitions**

Menu containing links to definition views for each resource type as shown in Figure 3 on page 16.

**Resource groups**

Link to definitional view for managing resource group definitions. Associated actions are Create, Update, Remove, Install and Add to Resource description.

**Resource assignments (fully functional menu only)**

Link to definitional view for creating and managing resource assignments. Associated actions are Create, Update, Remove and Add to Resource description.

**Resource descriptions**

Link to a definitional view for creating and managing resource descriptions. Associated actions are Create, Update, Remove, Install and Replace.

**Associations**

Includes the following links:

**CICS resource definitions in resource group**

Link to a tabular view displaying the resources within a resource group. The view includes a Remove action button allowing you to remove an association between a resource definition and its parent resource group. There is no create action with this view. Adding a resource to a group is carried out while defining the resource itself

**Resource groups in description**

Link to a definitional view for managing the associations between resource groups and resource descriptions. Associated actions are Create, Update and Remove.

**Resource assignment in description (fully functional menu only)**

Link to a definitional view for managing the associations between resource assignments and resource descriptions. Associated actions are Create, Update and Remove.

**CICS system links**

Link to a definitional view for managing CICS system link definitions. Associated actions are Create, Remove and Install.

**Resources deployed by...**

Includes the following links to views displaying active CICS resources:

**Resource description**

Link to a tabular view displaying deployed resources selected by resource description.

**Resource assignment (fully functional menu only)**

Link to a tabular view displaying deployed resources selected by resource assignment.

**CICS system**

Link to a tabular view displaying deployed resources selected by CICS system.

**Note:** You need to use the **CICS system definition** view (**Administration views—>Topology administration views—>CICS system definitions**) to specify resource installation requirements.



**Reminder:** Unless noted otherwise, only the context setting is recognized when you are creating and maintaining resource definitions..

---

## Common WUI administration actions

There are several common types of action commands that you can use with the business application services administration views. To implement one of these commands, click one of the following buttons at the bottom of a tabular view:

### Create

Create a new definition and add it to the data repository. Clicking **Create** opens a detailed view allowing you to create a definition and add it to the data repository. If you select an existing entry before clicking the **Create** button, fields for the new definition are pre-filled with values from the selected entry.

A business application services definition name can be 1 to 8 characters in length. The name can contain alphabetic, numeric, or national characters.

### Update

Update an existing definition in the data repository. Selecting an existing definition and clicking the **Update** button opens a modifiable version of the detailed view used to create the definition.

### Remove

Remove a definition or an association between two definitions from the data repository. Selecting one or more entries and clicking **Remove** opens a confirmation panel giving you the option to proceed or cancel the action.

These actions affect the contents of the data repository. The changes are applied immediately. The logical scope represented by your business application services definitions is also immediately updated.

### Notes:

1. The Version field of a definition cannot be changed.
2. There is no equivalent to the TEMPMP EUI action command for business application services views. The maintenance point CMAS must be active when you are creating or maintaining business application services definitions.
3. All of these actions can also be performed using the batched repository-update facility, which is described in the *CICSplex System Manager Administration* book.

|



## Chapter 12. Accessing BAS administration views using the EUI

You can access a business application services administration view by doing any of the following:

- Issuing the MENU ADMBAS command and selecting the view from the menu that is displayed. (The menu is shown in Figure 17.)
- Issuing the appropriate business application services view command.
- Initiating a hyperlink from one view to another by placing the cursor on a hyperlink field and pressing Enter.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====CONTEXT==SCOPE=====27FEB2005==11:30:30=CPSM=====10=
CMD Name          Description
-----
ADMBAS    Business Application Services Administration Views
RESDESC   Resource Descriptions
RASINDSC  Resource Assignments in Description
RESINDSC  Resource Groups in Description
RASGNDEF  Resource Assignments
RDSCPROC  Resource Description Process
SYSRES    CICS System Resources
SYSLINK   CICS System Links
RASPROC   Resource Assignment Process
RESGROUP  Resource Groups
RESINGRP  Resources in Resource Group
```

Figure 17. The ADMBAS menu

**Note:** You need to use the CICSSYS view, which is part of the Topology component, to specify resource installation requirements. See Chapter 16, “Automatic resource installation,” on page 85. The CICSSYS view is described in the *CICSplex SM Administration* book.

For additional information about accessing views, see the *CICSplex SM User Interface Guide*.

**Reminder:** Unless noted otherwise, only the context setting is recognized when you are creating and maintaining resource definitions. For additional information about setting the context, see *CICSplex System Manager User Interface Guide*.

The remainder of this section contains detailed descriptions of the business application services administration views and the actions you can use with them.

### Common EUI administration actions

There are several common types of action commands that you can use with the business application services administration views:

**ADD** To add an association between two definitions you can:

- Issue the ADD primary action command with the name of one of the definitions.
- Enter the ADD line action command next to the name of one of the definitions.

## common administration actions

The resulting panel prompts you to identify the other definition with which you want to create an association. Adding an association creates a relationship between the definitions in the data repository. Associations can be added between resource assignments and descriptions, between resource groups and descriptions, and between resource definitions and groups.

### **BRO**use

To browse a definition, enter the BRO line action command next to the name of the definition you want to display. The resulting panel is a nonmodifiable version of the panel used to create the definition.

### **CRE**ate

To create a definition and add it to the data repository you can:

- Issue the CREate primary action command. The fields in the resulting input panel contain blanks or default values.
- Enter the CRE line action command next to the name of a definition you want to use as a model. The fields in the resulting input panel contain information about that definition.

A business application services definition name can be 1 to 8 characters in length. The name can contain alphabetic, numeric, or national characters.

### **MAP**

To display a visual map of the definitions in the data repository enter the MAP line action command next to the name of the definition you want to use as a starting point.

For a complete description of the MAP action command and the display it produces, see *CICSplex System Manager User Interface Guide*.

### **RE**Move

To remove a definition or an association between two definitions from the data repository you can:

- Issue the REMove primary action command with the name of the definition or association you want to remove.
- Enter the REM line action command next to the name of the definition or association you want to remove.

When you press Enter, a confirmation panel is displayed. Press Enter again to remove the definition or association from the data repository.

### **UP**Date

To update a definition in the data repository enter the UPD line action command next to the name of the definition you want to change. The resulting panel is a modifiable version of the panel used to create the definition.

The ADD, CREATE, REMOVE, and UPDATE actions affect the contents of the data repository. The changes are applied immediately. The logical scope represented by your business application services definitions is also immediately updated.

### **Notes:**

1. The Version field of a definition cannot be changed.
2. The TEMPMP action command is not supported for business application services views. The maintenance point CMAS must be active when you are creating or maintaining business application services definitions.
3. All of these actions can also be performed using the batched repository-update facility, which is described in the *CICSplex System Manager Administration* book.

A list of the specific action commands available for each view is included with the view descriptions. The online help for a view also identifies the valid action commands.

For more information about action commands, see *CICSPlex SM User Interface Guide*.



---

## Chapter 13. Identifying remote resources to CICSplex SM

The choice between using resource descriptions alone or using resource assignments affects the processing of remote resources. Remote resources are defined to the local CICS system but they actually reside in another system. It is possible for a remote resource to have one name in the local CICS system and a different name in the remote system. CICSplex SM processes remote resource definitions differently depending on how you are managing your resources.

### **By resource descriptions alone**

In this situation, each resource definition in a resource group is directly associated with a CICS system. So a remote resource actually consists of two definitions: one for the local CICS system and one for the remote system.

CICSplex SM uses the remote system ID and remote name values in the resource definition to identify the remote resource.

### **By resource assignments**

When you use resource assignments, a remote resource can be fully represented to both the local and remote systems by a single resource definition. CICSplex SM selectively processes the attributes that are appropriate to each system.

The remote system ID in the resource assignment is the name of the connection that will be used between the local and remote system pair. If no name is specified, CICSplex SM uses the CICS system ID (SYSIDNT) of the remote system as the name of the connection to be used between the local and remote systems.

If you specify a remote name in the resource definition, that name is used when assigning the resource to the related (remote) system. Otherwise, the local name (that is, the name you give the resource definition) is used in both the target and related systems.





---

## Chapter 14. Installation of CICS resources

This chapter describes how you can use Business Application Services (BAS) to install resources. Systems must be running CICS/ESA 4.1 and later, but not all resources are available on all levels of CICS systems; for details, see the individual descriptions of the resource definition objects. The installation facility uses the EXEC CICS CREATE command to create resources independent of the CSD.

As with CICS itself, CICSplex SM can install resources either automatically at system initialization time or dynamically into an active system. When you use CICSplex SM to install CICS resources, those resources may replace any identical resources that may exist in the system.

### Notes:

1. If you are using BAS to automatically install resources when a CICS system initializes, you should specify the CICSplex SM system parameter MASPLTWAIT(YES) for that system. This parameter suspends PLT processing until all CICS resources are installed and the MAS is fully initialized. For information on specifying this parameter, see the *CICS Transaction Server for z/OS Installation Guide*.
2. There are special considerations when arranging for activation of a DB2 connection via a DB2CDEF definition. For details, see the *CICS Transaction Server for z/OS Installation Guide*.
3. It is not possible to use BAS to install an MQSeries® connection before the CICSplex SM environment has been initialized.
4. It is not possible to install journal definitions (JRNLDEF).
5. Enqueue models forming nested generic enqueue names must be installed either in the disabled state or in order, from the most specific (for example, ABCD) to the least specific (for example, AB\*). You can install disabled enqueue models in any order, but you must enable them in order from most specific to least specific. For more information, see “Installing BAS enqueue model definitions” on page 169.
6. If the MAS supports the LOGMESSAGE option of the EXEC CREATE command, then the CICSplex SM system parameter BASLOGMSG(NO) may be used to prevent CICS from logging to the CSDL Transient Data Queue, the BAS-CICS resource definitions. BASLOGMSG(YES) may also be set to allow this logging to occur and may be useful for problem determination.

---

## Installing CICS resources using the WUI

### Installing resource groups

When you install a resource group, you can install some or all of the resources of a single given type contained in the group. You can use a filter expression to select the resources to be installed. You can either specify the required CICS system and usage information for the resources, or you can refer to an existing resource assignment for that information. And, just as you can for individual resources, you can provide temporary override values for specific attributes of the selected resources.

Follow this procedure:

## installing CICS resources

1. From the WUI main menu, click **Administration views**—>**Basic CICS resource administration views**—>**Resource groups** to open the **Resource group definition** tabular view. This view lists the existing resource groups in the current context.
2. Select the resource group to be installed and click the **Install** action button.  
This opens an **Install** screen like the one shown in Figure 18. This screen prompts you to provide information about the resource definitions in the group and how the resources are to be installed. This information is normally supplied in a resource assignment. When you manually install a resource group using the **Install** action button, you can either specify the install options explicitly or refer to an existing resource assignment. If you name a resource assignment, any values that you do specify here temporarily override the equivalent values in the assignment.

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**Install**

Resource group name: XDE2RG01  
Description: Link to RESDESC via RASGNDEF

Resource assignment value: ☐   
Resource type: ☐ CONNDEF

Referenced assignment name: ☐

Target scope value: ☐   
Related scope value: ☐

Usage value: ☒ LOCAL (LOCAL, REMOTE)  
Mode value: ☒ N/A (N/A, DYNAM, STAT, INTRA, EXTRA, IND)  
Override scope value: ☒ NONE (NONE, TARGET, RELATED, BOTH)

Notify value: ☒ NO (NO, INACTIVE, RELEASE, FULL)  
State check value: ☒ NO (NO, YES)  
Force install value: ☒ NO (NO, YES)

Filter string expression: ☐   
Filter string: ☐   
Override string expression: ☐   
Override string: ☐

No Yes

Resource name: RESGROUP. View name: EYUSTARTRESGROUP.INSTALL

Figure 18. Resource group install screen

**Note:** Any values that you specify on this panel are in effect only for the duration of this single installation process. No resource assignments are

created or updated as a result of this panel. If you want to use the same set of install options more than once, you should create a new resource assignment.

3. Provide the following information, as appropriate:

**Resource assignment value**

(Optional.) Enter the specific or generic name of an existing resource assignment whose values are to be used for this installation. If you enter a generic value, a list of valid resource assignments is displayed.

If you specify an assignment name, the following fields are optional on this panel:

Target scope value  
Related scope value  
Usage value  
Mode value  
Override value

If you do supply values in these fields, those values temporarily override the equivalent assignment values. If you do not specify an assignment name, these fields are required.

**Resource type**


Select the type of resources to be installed from the drop down list.

**Note:** You cannot dynamically install the following types of resource definition:

- File key segment definitions (FSEGDEF)
- Journal definitions (JRNLEDEF).
- Session definitions (SESSDEF).

**Referenced assignment name**

When the **Resource type** field contains CONNDEF (for connections), identify the resource assignment that applies to the related session definitions (SESSDEF). For each connection, CICSplex SM requires one or more session definitions to properly construct the actual CICS

link. Clicking on the adjacent  icon opens a resource selection screen, allowing you to choose a resource from a list of those available.

**Target scope value**

Enter the specific or generic name of an existing CICS system or CICS system group into which the specified resources are to be installed.

**Related scope value**

Enter the specific or generic name of an existing CICS system into which those resources identified as REMOTE are to be installed as LOCAL.

**Note:** For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the **Related scope value**. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

**Usage value**

Specify how the resources will be used:

**LOCAL**

The resources are contained within the target CICS system. LOCAL is valid for all supported resource types.

**REMOTE**

The resource definitions refer to resources that reside in a different CICS system. If you specify REMOTE, you must also

specify a **Related scope value** to identify the CICS system that will contain the local instances of the resources. REMOTE is valid only for the following resource types:

FILEDEF  
PROGDEF  
TDQDEF  
TRANDEF

### Notes:

- When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the **Target scope value** and **Related scope value** fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.
- Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue's attributes is always a local resource. Therefore, when you install a temporary storage model definition, the **Usage value** must always specify LOCAL. See “Installing BAS temporary storage model definitions” on page 321. For a description of the TSMDEF Remote system attribute, see “Temporary storage model definition attributes” on page 321.

### Mode value

For some resource types, CICSplex SM requires additional information to determine which subset of resource attributes to use in completing the installation. The Mode value you should specify depends on the resource type being installed:

#### Programs (PROGDEF)

If you specified LOCAL in the Usage field, you can specify AUTO to have CICS automatically install programs into a system. AUTO means that no explicit definition of the programs is required in the CICS system. Otherwise, specify N/A.

If REMOTE is specified in the Usage field, you can identify how the program is to be routed:

#### DYNAM

Programs are processed by the dynamic routing program (DTR).

**STAT** Programs are sent to the remote CICS system identified in the Related Scope

#### Transactions (TRANDEF)

You can specify whether or not the transaction should be processed by the dynamic routing program. If the **Usage value** field contains REMOTE, a **Mode value** must be specified.

#### DYNAM

Transactions are processed by the dynamic routing program.

**STAT** Each transaction should be sent to the remote CICS system identified in the transaction definition (TRANDEF). This mode may be specified only if the **Usage value** field contains REMOTE.

**Note:** The value you specify here overrides the Dynamic value in the TRANDEF.

#### Transient data queues (TDQDEF)

You can identify the type of transient data queue to be installed:

**EXTRA**

Extrapartition TDQ.

**IND**

Indirect TDQ.

**INTRA**

Intrapartition TDQ.

If you specify N\_a, CICSplex SM uses the Type value in the TDQDEF to install the transient data queue. If the Type value is REMOTE, CICSplex SM installs an indirect TDQ.

For all other resources, specify N\_a because no mode data is required.

**Overtyping value**

If you plan to specify an override expression for the resources, indicate which scope the override values should be applied to:

**BOTH** Apply the override values to both scopes.**NONE** Do not apply any override values.**RELATED**

Apply the override values to the Related Scope only.

**TARGET**

Apply the override values to the Target Scope only.

**Notify value**

Specify the type of checking to be performed before attempting to install resources in the specified CICS systems:

**NO** No checking is performed.**INACTIVE**

Check for CICS systems in the target scope that are not currently active.

**RELEASE**

Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

**FULL** Perform both INACTIVE and RELEASE checking.**State check value**

Indicate whether or not the existence and operational state of all resources are to be checked before an EXEC CICS CREATE command is issued.

**NO** The existence and operational state of all resources are not to be checked.**YES** The existence and operational state of all resources are to be checked.**Force install value**

Specify YES or NO to indicate whether you want to install the resources even if CICSplex SM believes they do not need to be installed.

Normally, CICSplex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSplex SM does not install the resource, to avoid inadvertently changing attributes of an active resource.

If you specify YES in this field, CICSplex SM bypasses this duplicate resource checking and installs the new resource unconditionally.

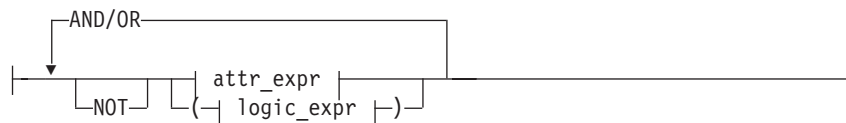
**Filter string**

(Optional.) Identifies attributes that are to be used in selecting the resources to be installed. CICSplex SM processes only those resources that meet the specified filter criteria.

A filter expression can be made up of one or more attribute expressions in the form:

**Filter expression**

►► | logic\_expr | . —————►►

**logic\_expr:****attr\_expr:**

| attr\_opvalue —————|

where:

*attr*

Is the name of an attribute in the resource table for the specified resource. You can name the same attribute more than once in a filter expression.

*oper*

Is one of the following comparison operators:

<	Less than
<=	Less than or equal to
=	Equal to
>=	Greater than or equal to
>	Greater than
≠	Not equal to

*value*

Is the value for which the attribute is being tested. The value must be a valid one for the attribute.

If the attribute accepts character data, this value can be generic. Generic values can contain:

- An asterisk (\*), to represent any number of characters, including zero. The asterisk must be the last or only character in the specified value. For example:

TRANID=PAY\*

- A plus sign (+), to represent a single character. A + can appear in one or more positions in the specified value. For example:

TRANID=PY++

If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes. For example:

TERMIN='Z AB'

To include a single quote or apostrophe in a value, you must repeat the character, like this:

DESCRIPTION='October's Payroll'

**AND/OR**

Combines attribute expressions into compound logic expressions using the logical operators AND and OR, like this:

attr\_expr AND attr\_expr.

Filter expressions are evaluated from left to right. You can use parentheses to vary the meaning of a filter expression. For example, this expression:

```
attr_expr AND (attr_expr OR attr_expr).
```

has a different meaning than this one:

```
(attr_expr AND attr_expr) OR attr_expr.
```

#### **NOT**

Negates one or more attribute expressions.

You can negate a single attribute expression, like this:

```
NOT attr_expr
```

You can also negate multiple attribute expressions or even a whole filter expression, like this:

```
NOT (attr_expr OR attr_expr).
```

Note that you must place parentheses around the attribute expressions (or the filter expression) to be negated.

To see a list of the resource attributes, type **FILTER** in the **COMMAND** field and press Enter.

#### **Override string**

(Optional.) Identifies attributes of the specified resources whose values are to be overridden when they are installed in one or more of the specified scopes. (The value in the **Overttype value** field determines which scope the override values are applied to.)

An override expression can be made up of one or more attribute expressions in the form:

#### **Override expression**



where:

*attr*

Is the name of a modifiable attribute for the resource.

*value*

Is the value to which you want the attribute set. The following restrictions apply:

- The value must be a valid one for the attribute.
- If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes, like this:

```
DESCRIPTION='Payroll.OCT'
```

- To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October''s Payroll'
```

4. Click **Yes** to install the resource group in the specified CICS systems.

## **Installing resource descriptions**

When you install a resource description, you are installing resources from resource groups that are associated, either directly or indirectly, with the description:

## installing CICS resources

- Resources in groups that are directly associated with the description (using the **Resource group in resource description** view ) are installed in the CICS systems named in the **Resource group scope name** field of the description.
- Resources in groups associated with the description by way of a resource assignment are installed in the target and related scope systems. These CICS systems can be identified in the resource assignment, the resource description, or the association between them (**Resource assignment in resource description** view).

You can also replace the resources associated with an installed resource description with the resources associated with a new description. When you replace a resource description, CICSplex SM:

- Discards any resources that are associated with the old resource description, but not the new one.
- Reinstalls any resources that are associated with both the old resource description and the new one, regardless of whether the definitions have changed.
- Installs any additional resources that are associated with the new resource description.

When you use the install action from the **Resource description definition** view, CICSplex SM attempts to install all of the resources associated with the resource description into the CICS systems named in the target scope and related scope fields. For resource installation to occur, the CICS systems must be active and must be running a release of CICS that supports the EXEC CICS CREATE command.

To install a resource description:

1. From the WUI main menu, click **Administration views—>Basic CICS resource administration views—>Resource descriptions<sup>2</sup>** to open the **Resource description definition** tabular view. This view lists the existing resource descriptions in the current context.
2. Select the resource description to be installed and click the **Install** action button. This opens an Install input panel like the one shown in Figure 19 on page 69.

---

2. You can also access this view from the **Fully functional Business Application Services (BAS) administration views** menu.



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**Install**

Resource description name: XMC2RD00  
Description: XMC2RD00 in Scope of XMC2CG00

Notify value: ☒ NO (NO, INACTIVE, RELEASE, FULL)  
State check value: ☒ NO (NO, YES)  
Force install value: ☒ NO (NO, YES)

No Yes

Resource name: RESDESC. View name: EYUSTARTRESDESC.INSTALL

Figure 19. Resource description Install screen

- Provide the following information, as appropriate:

**Notify value**

Select the type of checking to be performed before attempting to install resources in the CICS systems associated with the description:

**NO** No checking is performed.

**INACTIVE**

Check for CICS systems in the target scope that are not currently active.

**RELEASE**

Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

**FULL** Perform both INACTIVE and RELEASE checking.

**State check value**

Indicate whether or not the existence and operational state of all resources are to be checked before an EXEC CICS CREATE command is issued.

**NO** The existence and operational state of all resources are not to be checked.

**YES** The existence and operational state of all resources are to be checked.

**Force install value**

Indicate whether or not you want to install the resources even if CICSPlex SM believes they do not need to be installed.

**NO** Do not force the installation of resources.

**YES** Force the installation of resources.

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSPlex SM does not install the resource, to avoid inadvertently changing attributes of an active resource.

If you specify YES in this field, CICSPlex SM bypasses this duplicate resource checking and installs the new resource unconditionally.

- Click **Yes** to install the resource description in active CICS systems.

## installing CICS resources

**Note:** For information on what happens if your installation request does not complete successfully, see “Handling dynamic installation errors in the EUI” on page 96.

### Installing system links

When you install a system link, you are establishing a communications link between two CICS systems that are being managed by CICSplex SM. The connection and session definitions referred to by that system link are installed in the target CICS systems.

Once you have created a CICS system link, it must be installed in order for it to become an actual connection in the CICSplex. CICS system links can be installed:

- Automatically at CICS initialization.

This can be done by using the **Install Resources** field on the CICS system initialization, as described in *CICSplex System Manager Administration*. If you enable automatic resource installation for a CICS system, all the system links defined for that system are installed at initialization.

- Dynamically while a CICS system is active.

This can be done by using the install action command described here. The install action command is useful for installing individual system links that were not installed at initialization.

To install a system link:

1. From the WUI main menu, click **Administration views—>Basic CICS resource administration views—>CICS system links<sup>3</sup>** to open the **System link definition** tabular view like the one shown in Figure 20 on page 71.

---

3. You can also access this view from the **Fully functional Business Application Services (BAS) administration views** menu.

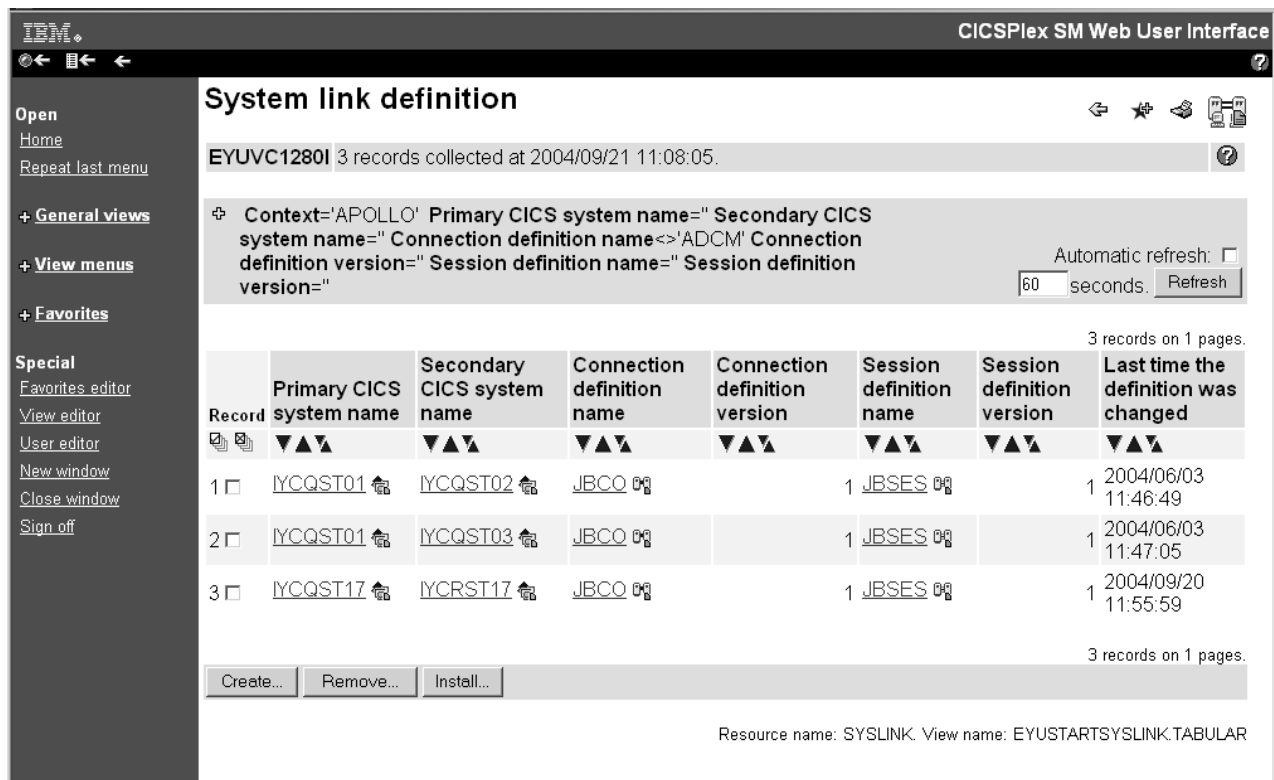


Figure 20. System link definition view

This view lists the system link definitions in the current context.

2. Select the radio button next to the link to be installed and click the **Install** action button.

This opens an Install input panel.

3. Provide the following information, as appropriate:

**Notify value**

Specify the type of checking to be performed before attempting to install the CICS system link:

**NO** No checking is performed.

**INACTIVE**

Check for CICS systems in the target scope that are not currently active.

**RELEASE**

Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

**FULL** Perform both INACTIVE and RELEASE checking.

**State check value**

Indicate whether or not the existence and operational state of all resources are to be checked before an EXEC CICS CREATE command is issued.

**NO** The existence and operational state of all resources are not to be checked.

**YES** The existence and operational state of all resources are to be checked.

**Force install value**

Indicate whether or not you want to install the resources even if CICSPlex SM believes they do not need to be installed.

**NO** Do not force the installation of resources.

## installing CICS resources

**YES** Force the installation of resources.

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed system link in the CICS system. If so, CICSPlex SM does not install the resource, to avoid inadvertently changing attributes of an active resource.

If you specify YES in this field, CICSPlex SM bypasses this duplicate resource checking and installs the new system link unconditionally.

4. Click **Yes** to install the system link in active CICS systems.

---

## Installing CICS resources using the EUI

### Installing resource groups

When you install a resource group, you can install some or all of the resources of a single given type contained in the group. You can use a filter expression to select the resources to be installed. You can either specify the required CICS system and usage information for the resources, or you can refer to an existing resource assignment for that information. And, just as you can for individual resources, you can provide temporary override values for specific attributes of the selected resources.

When you use the install line action command from the RESGROUP view, a series of input panels is produced.

The first panel prompts you to provide information about the resource definitions in the group and how the resources are to be installed. This information is normally supplied in a resource assignment (RASGNDEF). When you manually install a resource group using the INS action command, you can either specify the install options explicitly or refer to an existing resource assignment. If you name a resource assignment, any values that you do specify here temporarily override the equivalent values in the assignment.

Figure 21 illustrates the first panel for installing a resource group.

COMMAND ==>>

Group Name	EYUBAG01	Resource Group
Assignment	==>>	Resource Assignment name
Type	==>>	Resource Type to process
Ref Assignment	==>>	Referenced Resource Assignment name
Target Scope	==>>	
Related Scope	==>>	
Usage	==>>	How resource is referenced
Mode	==>>	Resource use qualifier
Override	==>>	Scope Attribute overrides applied to
Notify	==>> NO	Precheck (INACTIVE,RELEASE,FULL,NO)
State Check	==>> NO	Consistent State (YES,NO)
Force Install	==>> NO	Unconditional Install

Press ENTER to Install.  
Type UP or DOWN to view Assignment Select/Override panel.  
Enter END or CANCEL to cancel without installing.

Figure 21. Installing a resource group - Page 1

**Note:** Any values that you specify on this panel are in effect only for the duration of this single installation process. No resource assignments are created or updated as a result of this panel. If you want to use the same set of install options more than once, you should create a new resource assignment.

Provide the following information, as appropriate:

### Assignment

(Optional.) Enter the specific or generic name of an existing resource assignment whose values are to be used for this installation. If you enter a generic value, a list of valid resource assignments is displayed.

If you specify an assignment name, the following fields are optional on this panel:

Target Scope  
Related Scope  
Usage  
Mode  
Override

If you do supply values in these fields, those values temporarily override the equivalent assignment values. If you do not specify an assignment name, these fields are required.

**Type** Specify the type of resources to be installed. For a list of valid resource types, see Figure 6 on page 21.

**Note:** You cannot dynamically install the following types of resource definition:

- File key segment definitions (FSEGDEF)
- Journal definitions (JRNDEF).
- Session definitions (SESSDEF).

### Ref Assignment

When the Type field contains CONNDEF (for connections), identify the resource assignment that applies to the related session definitions (SESSDEF). For each connection, CICSplex SM requires one or more session definitions to properly construct the actual CICS link.

### Target Scope

Enter the specific or generic name of an existing CICS system or CICS system group into which the specified resources are to be installed. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

### Related Scope

Enter the specific or generic name of an existing CICS system into which those resources identified as REMOTE are to be installed as LOCAL. If you enter a generic value, a list of valid CICS systems is displayed.

**Note:** For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the Related Scope value. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

**Usage** Specify how the resources will be used:

### LOCAL

The resources are contained within the target CICS system. LOCAL is valid for all supported resource types.

### REMOTE

The resource definitions refer to resources that reside in a different CICS system. If you specify REMOTE, you must also specify a Related Scope value to identify the CICS system that will contain the local instances of the resources. REMOTE is valid only for the following resource types:

FILEDEF  
PROGDEF  
TDQDEF  
TRANDEF

### Notes:

1. When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the Target Scope and Related Scope fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.
2. Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue's attributes is always a local resource. Therefore, when you install a temporary storage model definition, the Usage parameter must always specify LOCAL. See "Installing BAS temporary storage model definitions" on page 321. For a description of the TSMDEF Remote system attribute, see "Temporary storage model definition attributes" on page 321.

**Mode** For some resource types, CICSplex SM requires additional information to determine which subset of resource attributes to use in completing the installation. The Mode value you should specify depends on the resource type being installed:

### Programs (PROGDEF)

If you specified LOCAL in the Usage field, you can specify AUTO to have CICS automatically install programs into a system. AUTO means that no explicit definition of the programs is required in the CICS system. Otherwise, specify N/A.

### Transactions (TRANDEF)

You can specify whether or not the transaction should be processed by the dynamic routing program. If the Usage field contains REMOTE, a Mode must be specified.

#### DYNAM

Transactions are processed by the dynamic routing program.

**STAT** Each transaction should be sent to the remote CICS system identified in the transaction definition (TRANDEF). This mode may be specified only if the Usage field contains REMOTE.

**Note:** The value you specify here overrides the Dynamic value in the TRANDEF.

### Transient data queues (TDQDEF)

You can identify the type of transient data queue to be installed:

#### EXTRA

Extrapartition TDQ.

#### IND

Indirect TDQ.

**INTRA**

Intrapartition TDQ.

If you specify N/A, CICSplex SM uses the Type value in the TDQDEF to install the transient data queue. If the Type value is REMOTE, CICSplex SM installs an indirect TDQ.

For all other resources, specify N/A because no Mode data is required.

**Override**

If you plan to specify an override expression for the resources, indicate which scope the override values should be applied to:

**BOTH** Apply the override values to both scopes.

**NONE** Do not apply any override values.

**RELATED**

Apply the override values to the Related Scope only.

**TARGET**

Apply the override values to the Target Scope only.

**Notify** Specify the type of checking to be performed before attempting to install resources in the specified CICS systems:

**NO** No checking is performed.

**FULL** Perform both INACTIVE and RELEASE checking.

**INACTIVE**

Check for CICS systems in the target scope that are not currently active.

**RELEASE**

Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

**State Check**

Indicate whether or not the existence and operational state of all resources are to be checked before an EXEC CICS CREATE command is issued.

**NO** The existence and operational state of all resources are not to be checked.

**YES** The existence and operational state of all resources are to be checked.

**Force Install**

Specify YES or NO to indicate whether you want to install the resources even if CICSplex SM believes they do not need to be installed.

Normally, CICSplex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSplex SM does not install the resource, to avoid inadvertently changing attributes of an active resource.

If you specify YES in this field, CICSplex SM bypasses this duplicate resource checking and installs the new resource unconditionally.

If you are finished specifying installation options, press Enter. If you want to specify a filter or override expression for the resources, issue the DOWN command.

Figure 22 shows the format of the second panel for installing a resource group.

```

COMMAND  ===>

      Group Name      EYUBAG01      Resource Group

Filter string expression: (Type FILTER to list columns)
===> NAME='A+B*'.
===>
===>
===>
===>
===>
===>

Override string expression: (Type MODIFY to list modifiable columns)
===> DSNNAME='CVM.TEST.FILE',STRINGS=4.
===>
===>
===>

Press ENTER to Install Resource Group.
Type DOWN or UP to view Install options screen.
Enter END or CANCEL to cancel without installing.
  
```

Figure 22. Installing a resource group - Page 2

Provide the following information, as appropriate:

### Filter string expression

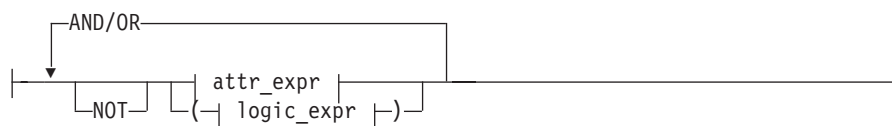
(Optional.) Identifies attributes that are to be used in selecting the resources to be installed. CICSplex SM processes only those resources that meet the specified filter criteria.

A filter expression can be made up of one or more attribute expressions in the form:

### Filter Expression

►► | logic\_expr | . ◀◀

### logic\_expr:



### attr\_expr:

| attr\_value |

where:

*attr*

Is the name of an attribute in the resource table for the specified resource. You can name the same attribute more than once in a filter expression.



*oper*

Is one of the following comparison operators:

<	Less than
<=	Less than or equal to
=	Equal to
>=	Greater than or equal to
>	Greater than
≠	Not equal to

*value*

Is the value for which the attribute is being tested. The value must be a valid one for the attribute.

If the attribute accepts character data, this value can be generic.

Generic values can contain:

- An asterisk (\*), to represent any number of characters, including zero. The asterisk must be the last or only character in the specified value. For example:

```
TRANID=PAY*
```

- A plus sign (+), to represent a single character. A + can appear in one or more positions in the specified value. For example:

```
TRANID=PY++
```

If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes. For example:

```
TERMID='Z AB'
```

To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October''s Payroll'
```

**AND/OR**

Combines attribute expressions into compound logic expressions using the logical operators AND and OR, like this:

```
attr_expr AND attr_expr.
```

Filter expressions are evaluated from left to right. You can use parentheses to vary the meaning of a filter expression. For example, this expression:

```
attr_expr AND (attr_expr OR attr_expr).
```

has a different meaning than this one:

```
(attr_expr AND attr_expr) OR attr_expr.
```

**NOT**

Negates one or more attribute expressions.

You can negate a single attribute expression, like this:

```
NOT attr_expr
```

You can also negate multiple attribute expressions or even a whole filter expression, like this:

```
NOT (attr_expr OR attr_expr).
```

Note that you must place parentheses around the attribute expressions (or the filter expression) to be negated.

## installing CICS resources

To see a list of the resource attributes, type `FILTER` in the `COMMAND` field and press Enter.

### Override string expression

(Optional.) Identifies attributes of the specified resources whose values are to be overridden when they are installed in one or more of the specified scopes. (The value in the `Override` field determines which scope the override values are applied to.)

An override expression can be made up of one or more attribute expressions in the form:

### Override Expression



where:

*attr*

Is the name of a modifiable attribute for the resource.

*value*

Is the value to which you want the attribute set. The following restrictions apply:

- The value must be a valid one for the attribute.
- If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes, like this:

```
DESCRIPTION='Payroll.OCT'
```

- To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October''s Payroll'
```

To see a list of resource attributes that can be modified, type `MODIFY` in the `COMMAND` field and press Enter.

Press Enter to install the resource group in the specified CICS systems.

**Note:** For information on what happens if your installation request does not complete successfully, see “Handling dynamic installation errors in the EUI” on page 96.

## Installing resource descriptions

When you install a resource description, you are installing resources from resource groups that are associated, either directly or indirectly, with the description:

- Resources in groups that are directly associated with the description (via `RESINDSC`) are installed in the CICS systems named in the `ResGroup Scope` field of the description.
- Resources in groups associated with the description by way of a resource assignment (`RASGNDEF`) are installed in the `Target` and `Related Scope` systems. These CICS systems can be identified in the resource assignment, the resource description, or the association between them (`RASINDSC`).

You can also replace the resources associated with an installed resource description with the resources associated with a new description. When you replace a resource description, CICSplex SM:

- Discards any resources that are associated with the old resource description, but not the new one.
- Reinstalls any resources that are associated with both the old resource description and the new one, regardless of whether the definitions have changed.
- Installs any additional resources that are associated with the new resource description.

When you use the install line action command (INS) from the RESDESC view, CICSplex SM attempts to install all of the resources associated with the resource description into the CICS systems named in the Target and Related scope fields. For resource installation to occur, the CICS systems must be active and must be running a release of CICS that supports the EXEC CICS CREATE command.

To install a resource description:

1. Type INS alongside the resource description you wish to install. The panel illustrated in Figure 23 is displayed:

COMMAND   ==>>

Name	EYUBAD03	Description to be installed
Notify	==> NO	Precheck (INACTIVE, RELEASE, FULL, NO)
State Check	==> NO	Consistent State (YES, NO)
Force Install	==> NO	Unconditional Install (YES, NO)

Press ENTER to install Resource Description.  
 Enter END or CANCEL to cancel without installing.

Figure 23. Installing a resource description

Provide the following information, as appropriate:

**Notify** Specify the type of checking to be performed before attempting to install resources in the CICS systems associated with the description:

**NO** No checking is performed.

**FULL** Perform both INACTIVE and RELEASE checking.

**INACTIVE**

Check for CICS systems in the target scope that are not currently active.

**RELEASE**

Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

**State Check**

Indicate whether or not the existence and operational state of all resources are to be checked before an EXEC CICS CREATE command is issued.

**NO** The existence and operational state of all resources are not to be checked.

**YES** The existence and operational state of all resources are to be checked.

## installing CICS resources

### Force Install

Indicate whether or not you want to install the resources even if CICSplex SM believes they do not need to be installed.

**NO** Do not force the installation of resources.

**YES** Force the installation of resources.

Normally, CICSplex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSplex SM does not install the resource, to avoid inadvertently changing attributes of an active resource.

If you specify YES in this field, CICSplex SM bypasses this duplicate resource checking and installs the new resource unconditionally.

Press Enter to install the resource description in active CICS systems.

**Note:** For information on what happens if your installation request does not complete successfully, see “Handling dynamic installation errors in the EU” on page 96.

2. Provide the system information.
3. Provide checking information.
4. Press Enter.
5. Correct errors.

## Installing system links

When you install a system link, you are establishing a communications link between two CICS systems that are being managed by CICSplex SM. The connection and session definitions referred to by that system link are installed in the target CICS systems.

Once you have created a CICS system link, it must be installed in order for it to become an actual connection in the CICSplex. CICS system links can be installed:

- Automatically at CICS initialization.

This can be done by using the Install Resources field on the CICSSYS definition, as described in *CICSplex System Manager Administration*. If you enable automatic resource installation for a CICS system, all the system links defined for that system are installed at initialization.

- Dynamically while a CICS system is active.

This can be done by using the INStall action command described here. The install action command is useful for installing individual system links that were not installed at initialization.

Figure 24 on page 81 shows the format of the panel produced when you use the install (INS) line action command from the SYSLINK view.

```

COMMAND  ==>

Primary System      EYUMAS1A
Secondary System    EYUMAS1B

ConnDef Name        CON1          Version  1
SessDef Name         SESSDEF1      Version  1

Notify              ==> NO          Precheck (INACTIVE, RELEASE, FULL, NO)
State Check         ==> NO          Consistent State (YES, NO)
Force Install       ==> NO          Unconditional Install (YES, NO)

Press ENTER to install SYSLINK.
Type END or CANCEL to cancel without installing.

```

Figure 24. Installing a CICS system link

Provide the following information, as appropriate:

**Notify** Specify the type of checking to be performed before attempting to install the CICS system link:

**NO** No checking is performed.

**FULL** Perform both INACTIVE and RELEASE checking.

**INACTIVE**

Check for CICS systems in the target scope that are not currently active.

**RELEASE**

Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

**State Check**

Indicate whether or not the existence and operational state of all resources are to be checked before an EXEC CICS CREATE command is issued.

**NO** The existence and operational state of all resources are not to be checked.

**YES** The existence and operational state of all resources are to be checked.

**Force Install**

Indicate whether or not you want to install the resources even if CICSplex SM believes they do not need to be installed.

**NO** Do not force the installation of resources.

**YES** Force the installation of resources.

Normally, CICSplex SM checks to see if it was responsible for placing the currently installed system link in the CICS system. If so, CICSplex SM does not install the resource, to avoid inadvertently changing attributes of an active resource.

If you specify YES in this field, CICSplex SM bypasses this duplicate resource checking and installs the new system link unconditionally.

Press Enter to install the system link in active CICS systems.



---

## Chapter 15. Deciding where resources should be installed

With Business Application Services, you can issue a single request and have resources installed throughout the CICSplex. The key is to define a resource as broadly as possible and install it in as many CICS systems as possible at one time. A single resource definition can be used to install multiple instances of the resource in multiple CICS systems. And that same resource definition can be used to install both local and remote resources. For example, a single transaction definition could be used to install local transactions in your application-owning regions (AORs) and remote transactions in your terminal-owning regions (TORs).

To determine what resources to install and where to install them, CICSplex SM checks the target Scope, related scope, and resource group values in your resource assignments, resource descriptions, and the associations between them. The information in these definitions is processed as follows:

1. Resource assignments (RASGNDEF) take precedence. Any values that you explicitly define in a resource assignment are used, regardless of any other values you may specify.
2. For any values that are not found in a Resource assignment definition, CICSplex SM checks the resource assignment-to-description association (RASINDSC) and uses the values it finds there.
3. For any values that are not found in either the resource assignment or the resource assignment-to-description association definition, CICSplex SM checks the resource description (RESDESC) and uses those values. The resource description values serve as defaults, if no other values are specified.

So you could identify the standard target and related scope values for your enterprise in one or more resource description definitions. Then, for particular assignment purposes (of a particular resource type, for example), you could override those standard values by specifying different values in the resource assignment or resource assignment-to-description association definition.





---

## Chapter 16. Automatic resource installation

The automatic installation of resources in a CICS system is controlled by:

- The CICS system definition, which tells CICSplex SM under what conditions resources should be installed and what to do if installation errors occur.
- One or more resource descriptions and, optionally, resource assignments, which tell CICSplex SM what resources to install and how to install them.

When a CICS system initializes and identifies itself to a CMAS, CICSplex SM reviews all the resource descriptions that are associated with that CICS system and determines the set of resources that should be installed.

---

### Installing resources automatically

To automatically install a set of resources when a CICS system initializes, you must:

1. Update the CICS system definition (CICSSYS) to indicate:
  - Whether resources should be installed every time the system initializes, only during a COLD or warm (AUTO) start, or not at all.

**Note:** CICSplex SM handles the initial start of a CICS system in the same way as it does a cold start. An emergency restart of CICS is handled in the same way as a warm start.

- How CICSplex SM should handle any resource installation errors that may occur.
2. Create one or more resource descriptions (RESDESC) and specify:
  - YES in the autoinstall field to enable automatic resource installation.
  - The groups of resources to be installed.

If the resource groups are directly associated with a resource description (via the **Resource group in resource description** view), the resources are installed in the CICS systems named in the **Resource group scope name** field (WUI) or ResGroup Scope field (EUI) of the description.

- The groups of resources to be installed.
3. Optionally, associate the resource descriptions with resource assignments (RASGNDEF) to select specific resources and provide usage information and override values.

In this case, the resources are installed in the CICS systems named in the Target Scope and Related Scope fields of the resource assignment, resource description, or the association between them.

**Note:** Resources can be installed in a CICS system automatically even if the maintenance point CMAS for the CICSplex is not active.

### Performance considerations for assigned resource descriptions

Each time a BAS resource definition is associated with a target CICS system through a RESDESC, an entry for that installation assignment is made in the resource set table which is an internal table within the BAS storage cache. Take the example of a data repository with just one RESDESC defined, which has 50 PROGDEFs associated with it in migration mode. When the target scope of the RESDESC is assigned to a single MAS, the resource set table will be initialized with 50 entries — one entry for each PROGDEF instance at the target MAS. If the RESDESC target scope is changed to a CICS system group comprising 20 MASes, the number of entries in the resource set table will increase to 1000 (50 resource definitions times 20 target regions). The resource set table is kept in contiguous

## installing resources automatically

storage to optimize performance. It follows that, because the BAS storage cache has a finite size, there is a limit on the number of installation assignments that can be made with RESDESCs within a CICSplex. The limit will vary from installation to installation but the assignment of more than 150,000 resource definitions across the whole of the CICSplex may lead to performance problems. If a CICSplex is expected to exceed that limit, we advise you to consider reducing the number of static definitions by using autoinstall services.

---

## Handling automatic installation errors

If any of the resources identified in the resource descriptions for a CICS system cannot be installed when the system initializes, CICSplex SM:

- Issues EYUBNnnnn messages to the CICS job log and EYULOG. These messages describe the resources and the reasons they could not be installed, including any error codes that may have been returned by CICS.

**Note:** The job log will also contain CICS messages with detailed information on the installation errors.

- Responds according to the Recovery Action value in the CICSSYS definition:

### **CONTINUE**

Continue installing other resources.

### **IMMEDIATE**

Shut down the CICS system immediately.

### **NORMAL**

Shut down the CICS system normally.

### **PROMPT**

Prompt the operator console for an action. The resource installation process in the CICS system is suspended until the operator responds, but all other MAS processing continues.

### **TERMINATE**

Terminate the resource installation process. No more resources are installed. Any resources that were successfully installed are not removed.

---

## Chapter 17. Dynamic resource installation

It is recommended that you install the majority of your resources automatically, as each CICS system initializes. However, at times it may be necessary to refresh those resources or install additional resources to satisfy special circumstances. Once a CICS system is running, you can use Business Application Services to install new or updated resources dynamically.

You can install a single resource in a single CICS system or a whole set of resources of various types in multiple CICS systems, complete with definition assignment and override values. When you install CICS resources dynamically, you can force those resources to replace any identical resources that have been installed in the system previously.

### Notes:

1. The maintenance point CMAS for the CICSplex must be active when you attempt to install resources dynamically. If the maintenance point is not available, the installation request fails.
2. You cannot dynamically install session definitions (SESSDEF). They are installed when you install the associated connection definitions (CONNDEF).

When you install an individual resource, you must identify the CICS systems where the resource should be installed and provide information about its use as a local or remote resource. Optionally, you can provide override values for specific attributes of the resource. Any override values that you specify are used only for this one-time installation of the resource. The resource definition in the data repository remains unchanged.

You can use the install action command to install dynamically a resource into one or more active systems. For details of valid CICS systems, see the descriptions of the individual BAS objects. The options for installing a resource are the same ones you can specify when you create a resource assignment (RASGNDEF), including specifying an override expression to be applied for this installation.

**Note:** The **File key segment definitions** and **Session definitions** (FSEGDEF and SESSDEF) views do not support the install action command.

CICSplex SM attempts to install all of the resources you identify, but sometimes conditions in the CICSplex prevent the installation process from completing successfully. When installation problems occur, CICSplex SM provides detailed information about the errors.

---

### Installing resources dynamically using the WUI

To install a resource definition dynamically:

1. Open a resource definition screen by clicking **Administration views—>Basic CICS resource administration views->CICS resource definitions**<sup>4</sup>, then selecting the type of resource to be installed.
2. Select one or more resources and click the **Install** action button.
3. Provide the following information about the CICS systems where the resources are to be installed.

---

4. You can also access this view from the **Fully functional Business Application Services (BAS) administration views** menu.

### Target scope value

Enter the specific or generic name of an existing CICS system or CICS system group into which the specified resources are to be installed.

### Related scope value

If you specify a **Usage value** of REMOTE, enter the specific or generic name of an existing CICS system into which the remote resource is to be installed as LOCAL.

**Note:** For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the **Related scope value**. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

### Usage value

Specify how the resource will be used:

#### LOCAL

The resource is contained within the target CICS system. LOCAL is valid for all supported resource types.

#### REMOTE

The resource definition refers to a resource installed in a different CICS system. If you specify REMOTE, you must also specify a **Related Scope value** to identify the CICS system that will contain a local instance of the resource. REMOTE is valid only for the following resource types:

FILEDEF  
PROGDEF  
TDQDEF  
TRANDEF

### Notes:

- a. When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the **Target scope value** and **Related scope value** fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.
- b. Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue's attributes is always a local resource. Therefore, when you install a temporary storage model definition, the **Usage value** must always specify LOCAL. See "Installing BAS temporary storage model definitions" on page 321. For a description of the TSMDEF Remote system attribute, see "Temporary storage model definition attributes" on page 321.

### Mode value

For some resource types, CICSplex SM requires additional information to determine which subset of resource attributes to use in completing the installation. The **Mode value** you should specify depends on the resource type being installed:

#### Programs (PROGDEF)

If you specified LOCAL in the **Usage value** field, you can specify AUTO to have CICS automatically install programs into a system. AUTO means that no explicit definition of the programs is required in the CICS system. Otherwise, specify N/A.

#### Transactions (TRANDEF)

You can specify whether or not the transaction should be

processed by the dynamic routing program. If the **Usage value** field contains REMOTE, a **Mode value** must be specified as follows:

**Note:** The value you specify here overrides the **Dynamic routing option** value in the transaction definitions (TRANDEF).

**DYNAM**

Transactions are processed by the dynamic routing program.

**STAT** Each transaction should be sent to the remote CICS system identified in the transaction definition (TRANDEF). This mode may be specified only if the **Usage value** field contains REMOTE.

**Transient data queues (TDQDEF)**

You can identify the type of transient data queue to be installed:

**EXTRA**

Extrapartition TDQ

**IND**

Indirect TDQ

**INTRA**

Intrapartition TDQ

If you specify N/A, CICSplex SM uses the **Transient data queue type** value in the transient data queue definition to install the transient data queue. If this type value is REMOTE, CICSplex SM installs an indirect TDQ.

For all other resources, specify N/A because no mode data is required.

**Overtyping value**

If you plan to specify an override expression for the resource, indicate which scope the override values should be applied to:

**NONE** Do not apply any override values.

**BOTH** Apply the override values to both scopes.

**RELATED**

Apply the override values to the Related Scope only.

**TARGET**

Apply the override values to the Target Scope only.

**Referenced resource assignment name**

If you are installing connections from the **Connection definition** view, identify the resource assignment that applies to the related session definitions. For each connection, CICSplex SM requires one or more session definitions to properly construct the actual CICS link.

**Note:** The **Referenced resource assignment name** field appears only when you are installing a connection from the **Connection definition** view.

4. Specify any pre-installation checks.

When you install resources into CICS systems dynamically, you can ask CICSplex SM to perform the following checks before it attempts to install the resources:

- Are the CICS systems running?
- Do the CICS systems support the EXEC CICS CREATE command?

The value in the **Notify value** field determines, which, if any, checks are carried out.

## installing resources dynamically

If you request any of these pre-installation checks, CICSplex SM performs them for all the resources you specified before any of the resources are actually installed.

To specify these checks, select one of the following values from the **Notify value** field:

### **INACTIVE**

CICSplex SM checks all of the CICS systems you identified to make sure they are currently active in the CICSplex. If any of the CICS systems are not active, CICSplex SM returns a list of inactive systems.

### **RELEASE**

CICSplex SM checks for CICS systems in the target scope that do not support EXEC CICS CREATE commands. If any of the CICS systems are running a release of CICS that does not support EXEC CICS CREATE, CICSplex SM returns a list of systems where resources cannot be installed.

### **FULL**

CICSplex SM checks all of the CICS systems you identified to make sure they are currently active in the CICSplex, and checks that the CICS system is at the appropriate level for the resource being installed. If any of the CICS systems are not active, CICSplex SM returns a list of inactive systems. If any of the CICS systems are running a release of CICS that does not support EXEC CICS CREATE, CICSplex SM returns a list of systems where resources cannot be installed.

### **NO**

No checking is performed.

## 5. Request any consistent state check.

If a resource that you are trying to install already exists in a CICS system, CICSplex SM can check whether its current operational state would allow the resource to be replaced. For example, if a program with the same name and attributes exists in a CICS system, CICSplex SM attempts to discard it. However, if that program is currently in use, CICSplex SM cannot replace it with a new one. You use the **State check value** field to request a consistent state check:

### **State check**

#### **NO**

CICSplex SM does not provide details on resource that are not installable because of their status before issuing an EXEC CICS CREATE command.

#### **YES**

CICSplex SM provides details on resources that are not installable because of their status before issuing an EXEC CICS CREATE command.

If you do not request a state check, CICSplex SM simply passes the EXEC CICS CREATE request to CICS; if the resource is in a state that prevents it from being replaced, the request fails.

## 6. Specify a **Force install value**.

Before installing a resource, CICSplex SM checks to see if the same resource already exists in the CICS system and if CICSplex SM itself was responsible for installing it. If so, CICSplex SM considers the new resource to be a duplicate.

In this situation, CICSplex SM concludes that the new resource does not need to be installed because it is a duplicate of one that already exists. However, you may want to reinstall an existing resource if, for example, you have changed attributes of the definition, or you are supplying override values as part of the installation request. To do this, you can use the **Force install value** option when you dynamically install resources. This option is available when you:

- Install an individual resource

- Install a resource group
- Install a resource description
- Replace a resource description

**Force install value**

**YES** Install the specified resource unconditionally, without checking whether or not it is a duplicate

**NO** Do not install the duplicate resource.

By default, **Force install value** is set to No; CICSplex SM does not normally force the installation of a resource it believes to be a duplicate. However, if you specify YES, you can bypass this duplicate resource checking. CICSplex SM will install all of the specified resources unconditionally.

## 7. Provide any override expressions.

This identifies attributes of the specified resource whose values are to be overridden when they are installed in one or more of the specified scopes. The value in the **Override string** field determines which scope the override values are applied to.

(Optional.) An override expression can be made up of one or more attribute expressions in the form:

**Override Expression**

where:

*attr*

Is the name of a modifiable attribute for the resource.

*value*

Is the value to which you want the attribute set. The following restrictions apply:

- The value must be a valid one for the attribute.
- If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes, like this:  
DESCRIPTION='Payroll.OCT'
- To include a single quote or apostrophe in a value, you must repeat the character, like this:

DESCRIPTION='October's Payroll'

8. Click **Yes** to action any pre-installation checks and install the resource definition in the specified CICS systems. The resource definition tabular view is redisplayed.

If the install fails, messages containing diagnostic information are displayed on this screen.

---

## Installing resources dynamically using the EUI

To install a resource definition dynamically:

1. Display an information panel containing the resource you wish to install and type INS against it. A panel like the one in Figure 25 on page 92 is displayed:



## installing resources dynamically

```
COMMAND  ===>

Name      C001      Version  0
Type      CONNDEF

Target Scope  ===>
Related Scope  ===>

Usage      ===> LOCAL      How resource is referenced
Mode       ===> N/A       Resource use qualifier
Override   ===> NONE      Scope Attribute overrides applied to
Ref Assign  ===>          Resource Assignment name
Notify     ===> NO        Precheck (INACTIVE, RELEASE, FULL, NO)
State Check ===> NO        Consistent State (YES, NO)
Force Install ===> NO      Unconditional install (YES, NO)

Override string expression: (Type MODIFY to list modifiable columns)
===>
===>
===>

Press ENTER to Install.
Type END or CANCEL to cancel without installing.
```

Figure 25. Installing a resource in CICS systems

2. Provide details of the CICS systems where the resources are to be installed (see “Providing CICS system details”).
3. Provide any override expressions (see “Providing override expressions” on page 96).
4. Press the Enter key to action any pre-installation checks and install the resource definition in the specified CICS systems.
5. Handle any errors (see “Handling dynamic installation errors in the EUI” on page 96).

**Note:** For information on what happens if your installation request does not complete successfully, see “Handling dynamic installation errors in the EUI” on page 96.

## Providing CICS system details

Provide the following information, as appropriate:

### Target Scope

Enter the specific or generic name of an existing CICS system or CICS system group into which the specified resource is to be installed. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

### Related Scope

If you specify a Usage value of REMOTE, enter the specific or generic name of an existing CICS system into which the remote resource is to be installed as LOCAL. If you enter a generic value, a list of valid CICS systems is displayed.

**Note:** For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the Related Scope value. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

**Usage** Specify how the resource will be used:



**LOCAL**

The resource is contained within the target CICS system. LOCAL is valid for all supported resource types.

**REMOTE**

The resource definition refers to a resource installed in a different CICS system. If you specify REMOTE, you must also specify a Related Scope value to identify the CICS system that will contain a local instance of the resource. REMOTE is valid only for the following resource types:

FILEDEF  
 PROGDEF  
 TDQDEF  
 TRANDEF

**Notes:**

1. When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the Target Scope and Related Scope fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.
2. Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue's attributes is always a local resource. Therefore, when you install a temporary storage model definition, the Usage parameter must always specify LOCAL. See "Installing BAS temporary storage model definitions" on page 321. For a description of the TSMDEF Remote system attribute, see "Temporary storage model definition attributes" on page 321.

**Mode** For some resource types, CICSplex SM requires additional information to determine which subset of resource attributes to use in completing the installation. The Mode value you should specify depends on the resource type being installed:

**Programs (PROGDEF)**

If you specified LOCAL in the Usage field, you can specify AUTO to have CICS automatically install programs into a system. AUTO means that no explicit definition of the programs is required in the CICS system. Otherwise, specify N/A.

**Transactions (TRANDEF)**

You can specify whether or not the transaction should be processed by the dynamic routing program. If the Usage field contains REMOTE, a Mode must be specified.

**Note:** The value you specify here overrides the Dynamic value in the transaction definitions (TRANDEF).

**DYNAM**

Transactions are processed by the dynamic routing program.

**STAT** Each transaction should be sent to the remote CICS system identified in the transaction definition (TRANDEF). This mode may be specified only if the Usage field contains REMOTE.

**Transient data queues (TDQDEF)**

You can identify the type of transient data queue to be installed:

## installing resources dynamically

### EXTRA

Extrapartition TDQ

**IND** Indirect TDQ

### INTRA

Intrapartition TDQ

If you specify N/A, CICSplex SM uses the Type value in the TDQDEF to install the transient data queue. If the Type value is REMOTE, CICSplex SM installs an indirect TDQ.

For all other resources, specify N/A because no Mode data is required.

### Override

If you plan to specify an override expression for the resource, indicate which scope the override values should be applied to:

**NONE** Do not apply any override values.

**BOTH** Apply the override values to both scopes.

### RELATED

Apply the override values to the Related Scope only.

### TARGET

Apply the override values to the Target Scope only.

### Ref Assign

If you are installing connections from the CONNDEF view, identify the resource assignment that applies to the related session definitions (SESSDEF). For each connection, CICSplex SM requires one or more session definitions to properly construct the actual CICS link.

**Note:** The Ref Assign field appears only when you are installing a connection from the CONNDEF view.

## Specifying pre-installation checks

When you install resources into CICS systems dynamically, you can ask CICSplex SM to perform certain types of checks before it attempts to install the resources.

- Are the CICS systems running?
- Do the CICS systems support the EXEC CICS CREATE command?

If you request any of these pre-installation checks, CICSplex SM performs them for all the resources you specified before any of the resources are actually installed. You use the Notify field to request pre-installation checks.

### Notify

#### INACTIVE

CICSplex SM checks all of the CICS systems you identified to make sure they are currently active in the CICSplex. If any of the CICS systems are not active, CICSplex SM returns a list of inactive systems.

#### RELEASE

CICSplex SM checks for CICS systems in the target scope that do not support EXEC CICS CREATE commands. If any of the CICS

systems are running a release of CICS that does not support EXEC CICS CREATE, CICSPlex SM returns a list of systems where resources cannot be installed.

**FULL** CICSPlex SM checks all of the CICS systems you identified to make sure they are currently active in the CICSPlex, and checks that the CICS system is at the appropriate level for the resource being installed. If any of the CICS systems are not active, CICSPlex SM returns a list of inactive systems. If any of the CICS systems are running a release of CICS that does not support EXEC CICS CREATE, CICSPlex SM returns a list of systems where resources cannot be installed.

**No** No consistent state checking is performed.

## Requesting a consistent state check

If a resource that you are trying to install already exists in a CICS system, CICSPlex SM can check whether its current operational state would allow the resource to be replaced. For example, if a program with the same name and attributes exists in a CICS system, CICSPlex SM attempts to discard it. However, if that program is currently in use, CICSPlex SM cannot replace it with a new one. You use the State check field to request a consistent state check.

### State check

**NO** CICSPlex SM does not provide details on resource that are not installable because of their status before issuing an EXEC CICS CREATE command.

**YES** CICSPlex SM provides details on resources that are not installable because of their status before issuing an EXEC CICS CREATE command.

If you do not request a state check, CICSPlex SM simply passes the EXEC CICS CREATE request to CICS; if the resource is in a state that prevents it from being replaced, the request fails.

**Note:** For more information on how resource installation errors are handled, see “Handling dynamic installation errors in the EUI” on page 96.

## Forcing the installation of a resource

Before installing a resource, CICSPlex SM checks to see if the same resource already exists in the CICS system and if CICSPlex SM itself was responsible for installing it. If so, CICSPlex SM considers the new resource to be a duplicate.

In this situation, CICSPlex SM concludes that the new resource does not need to be installed because it is a duplicate of one that already exists. However, you may want to reinstall an existing resource if, for example, you have changed attributes of the definition, or you are supplying override values as part of the installation request. To do this, you can use the Force Install option when you dynamically install resources. The Force Install option is available when you:

- Install an individual resource
- Install a resource group
- Install a resource description
- Replace a resource description

### Force Install

## installing resources dynamically

- Yes** Install the specified resource unconditionally, without checking whether or not it is a duplicate
- No** Do not install the duplicate resource.

By default, Force Install is set to No; CICSplex SM does not normally force the installation of a resource it believes to be a duplicate. However, if you specify YES for Force Install, you can bypass this duplicate resource checking. CICSplex SM will install all of the specified resources unconditionally.

## Providing override expressions

An override expression identifies attributes of the specified resource whose values are to be overridden when it is installed in one or more of the specified scopes. (The value in the Override field determines which scope the override values are applied to.)

### Override string expression

(Optional.) An override expression can be made up of one or more attribute expressions in the form:

#### Override Expression



where:

*attr*

Is the name of a modifiable attribute for the resource.

*value*

Is the value to which you want the attribute set. The following restrictions apply:

- The value must be a valid one for the attribute.
- If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes, like this:

```
DESCRIPTION='Payroll.OCT'
```

- To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October''s Payroll'
```

To see a list of resource attributes that can be modified, type MODIFY in the COMMAND field and press Enter.

---

## Handling dynamic installation errors in the EUI

When you ask CICSplex SM to install one or more resources dynamically by using the install action from an end-user interface view, an input panel is displayed. After you provide the required information and press Enter, the input panel remains displayed while CICSplex SM attempts to install the selected resources into the appropriate CICS systems. Note that the installation of resources into various CICS systems can take place in parallel.

When the installation process is complete, if any of the resources could not be installed, a panel like the one shown in Figure 26 is displayed.

```

COMMAND ==>                                Scroll ==> PAGE
These systems had errors.  Select them to see details of the errors.

C System
- -----
_ EYUMAS1A

***** BOTTOM OF DATA *****

```

Figure 26. A list of CICS systems with installation errors

The Systems with Errors panel indicates one or more errors occurred while CICSplex SM was attempting to install resources in the specified CICS systems.

1. To display a list of the errors encountered by a CICS system, type an S (for Select) to the left of the system name. You can select more than one CICS system at a time.
2. Press Enter. The list of installation errors for the first CICS system you selected is displayed. Figure 27 shows a sample list of resource installation errors:

```

COMMAND ==>                                Scroll ==> PAGE
Errors found for  EYUMAS1A

Resource Res Resource   Error Code   EIBFN Resp1 Resp2 Resp2
Name     Ver  Type                                Hi      Lo
-----
EYU9XLEV 1  PROGDEF  Install Failure 3002  10    31    500

***** BOTTOM OF DATA *****

```

Figure 27. A list of resource installation errors

3. Note the errors. Either press Enter, or issue the END or CANCEL command. The list of errors for the next CICS system you selected is displayed. When the errors for all the CICS systems you selected have been displayed, you are returned to the view where you entered the install command.

**Attention:** Once you exit the list of CICS systems that experienced installation errors, that list is deleted and cannot be recreated.

4. Correct the installation errors and try the installation process again.

The Resource Install Errors panel lists the resources that could not be installed in the specified CICS system. The following information is provided for each resource:

**Resource Name**

The name of the resource that could not be installed.

**Res Ver**

The version of the resource that could not be installed.

**Resource Type**

The type of resource that could not be installed.

**Error Code**

A CICSplex SM error code that describes the reason the resource could not be installed. The error code will be one of the following:

## installing resources dynamically

### **Complete Failed**

An EXEC CICS CREATE COMPLETE request for a connection, session, or terminal failed. The CICS EIBFN and RESP values are returned with this error code.

### **Connection Failed**

An attempt to install the specified connection failed because the associated session definition could not be found.

### **Discard Failure**

An EXEC CICS CREATE DISCARD request for a connection, session, or terminal failed. The CICS EIBFN and RESP values are returned with this error code.

### **Install Failure**

Either CICSplex SM did not perform a resource state check before issuing the EXEC CICS CREATE command or the state check process failed. The resource install request was rejected by CICS. The CICS EIBFN and RESP values are returned with this error code.

### **MAS Failure**

An attempt to install the specified resource in the specified system failed because an unexpected condition was encountered. Refer to the specific CICS system job jog and CMAS EYULOG for further information.

### **Not Authorized**

The external security manager (ESM) determined that the user who requested the install action is not authorized to perform the specified installation.

### **Not Forced**

An attempt to install the specified resource in the specified CICS system failed because the same resource already exists in the CICS system and Force Install is set to NO.

### **Not Supported**

An attempt to install the specified resource in the specified CICS system failed because CICS does not support the dynamic installation of that resource. Journals cannot be installed dynamically. Journal models and transient data queues can be installed only in systems running the CICS TS for OS/390.

### **Status Failure**

CICSplex SM performed a resource state check and determined that the specified resource could not be installed in the specified CICS system.

### **System State**

The specified CICS system either is not active or does not support the EXEC CICS CREATE command.

**EIBFN** The code that identifies the last CICS command issued by the task. For a list of valid codes, see the *CICS Application Programming Reference* or the *CICS System Programming Reference* .

**Resp1** The number corresponding to the condition specified in the Error code field.

### **Resp2 Hi**

The number in the high-order EIBRESP2 halfword (see Note).

**Resp2 Lo**

The error number in the low-order EIBRESP2 halfword (see Note).

**Note:** The fullword EIBRESP2 field is regarded as a structure containing two halfwords. The low-order halfword (Resp2 Lo) always contains an error number. The high-order halfword (Resp2 Hi) may contain another number to help you identify the error. The EXEC CICS CREATE RESP2 values and their meanings can be found in *CICS System Programming Reference*.





---

## Chapter 18. Extracting records from the CSD

To migrate resource definitions from your CICS system definition (CSD) file, CICSplex SM provides an exit routine that can extract records from an existing CSD. The exit routine uses the EXTRACT command of the CICS DFHCSDUP utility to read CSD records. The extracted CSD records are processed by the CICSplex SM-supplied extract routine EYU9BCSD to generate equivalent CICSplex SM resource definition records that you can use as input to the batched repository-update facility.

---

### The CICSplex SM-supplied extract routine

The CICSplex SM-supplied extract routine, called EYU9BCSD, is supplied in the CICSTS22.CPSM.SEYUAUTH library. You must run EYU9BCSD on a z/OS system. You can use the program to extract records from CSD files on the following versions of CICS:

- CICS Transaction Server for z/OS, Version 2 Release 3
- CICS Transaction Server for z/OS, Version 2 Release 2
- CICS Transaction Server for OS/390 1.3

For each CSD record identified in your input file, EYU9BCSD generates an equivalent CICSplex SM resource definition record. For example, a CSD PROGRAM record is used to build a PROGDEF resource definition. Each field in the CSD record is used to assign the appropriate attribute value to the resource definition.

In addition to generating individual resource definitions, EYU9BCSD also generates CICSplex SM resource group definitions (RESGROUP). It uses the RESGROUP keyword of the xxxxDEF resource definitions to maintain the relationship to the resource group. That means when a PROGDEF resource definition is generated from a CSD PROGRAM record, it can be automatically associated with an appropriate resource group. You can choose to create a resource group for each CSD group presented to the exit, using the existing GROUP names. Alternatively, you can name a single resource group to be created from all the CSD groups being processed by EYU9BCSD.

Output from EYU9BCSD is in the form of batched repository-update facility CREATE commands. When you submit those commands, the batched repository-update facility creates the appropriate resource definition records in the data repository.

**Note:** EYU9BCSD will not build BATCHREP output for CSD resources stored in the CSD groups with names beginning with either DFH or EYU. It is not intended that these types of resources should be defined using BAS. If you need to migrate sample definitions, you should copy the resources to a group with a name that does not start with DFH or EYU.

---

### Creating input to the extract routine EYU9BCSD

The input file for the CICSplex SM extract routine EYU9BCSD consists of a series of control statements. These control statements describe the CSD records you want to extract and the resource groups with which they should be associated.

The input file must adhere to the following requirements:

- The file must have a fixed logical record length of 80.

## creating input to EYU9BCSD

- Each control statement must be contained on a single line.
- Any line with \* in column 1 is treated as a comment.

The following control statements are supported:

### **RESGROUP(CSDGROUP|*resgroup*)**

Identifies the resource group or groups to be generated:

#### **CSDGROUP**

A RESGROUP definition is generated for each CSD group presented to EYU9BCSD.

#### *resgroup*

A single RESGROUP definition is generated using the specified name.

The RESGROUP statement is optional and, if specified, only one is allowed per input file.

### **RESINGRP(CSDGROUP|*resgroup*)**

Identifies the resource group with which resource definitions are to be associated:

#### **CSDGROUP**

Resource definitions are associated with a resource group having the same name as the original CSD group.

#### *resgroup*

Resource definitions are associated with the specified resource group. The resource group must already be defined in the data repository for an association to be created.

The RESINGRP statement is optional and, if specified, only one is allowed per input file. If you do not specify a RESINGRP statement, the batched repository-update facility CREATE xxxxDEF command is generated without a RESGROUP operand. In that case, the xxxxDEF resource definition is not automatically associated with any resource group.

### *objtype(resname)*

Identifies the CSD records to be processed by EYU9BCSD, where:

#### *objtype*

Is the CSD resource type, which may be one of the following:

CONNECTION,CORBASERVER, DB2CONN, DB2ENTRY,  
DB2TRAN, DJAR, DOCTEMPLATE, ENQMODEL, FILE, JOURNAL,  
JOURNALMODEL, LSRPOOL, MAPSET, PARTITIONSET,  
PARTNER, PROCESSTYPE, PROFILE, PROGRAM,  
REQUESTMODEL, SESSIONS, TCPIPService, TDQUEUE,  
TERMINAL, TRANCLASS, TRANSACTION, TSMODEL,  
TYPETERM

You can specify multiple *objtype* statements in a single input file, but each one must represent a different resource type. Only one *objtype* statement of a given resource type is allowed per input file.

#### *resname*

Is the specific or generic name of a CSD resource of the specified type.

For example, PROGRAM(\*) would process all the PROGRAM records in the CSD presented to EYU9BCSD. PROGRAM(AB+C\*)

would process only those PROGRAM records that match the generic pattern. Note that the asterisk (\*) is interpreted according to CICSplex SM rules for generics, not CEDA rules.

### **INQUOTES(NO|YES)**

Identifies whether or not you want field values enclosed in quotes on the output data set. You may need to use this control statement if you have any data on your CSD that contains unbalanced parentheses. If you omit this keyword, the default value of NO is assumed.

**NO** The values of parameters are not enclosed in quotes on the output data set. This setting is perfectly adequate for input to the batched repository-update facility, but you might encounter problems if the parameter values contain unbalanced parentheses.

Note that, if you specify INQUOTES(NO), the EYU9BCSD output can be used as input to any release of the CICSplex SM batched repository-update facility.

**YES** All values of parameters are enclosed in quotes on the output data set. The CICSplex SM batched repository-update facility terminates the parameter value at the final quote, not at an embedded parenthesis.

Note that, if you specify INQUOTES(YES), the EYU9BCSD output can be used only with the CICSplex SM batched repository-update facility at CICS Transaction Server for OS/390, Version 1 Release 3 and later. The EYU9BCSD output is not compatible with, and cannot be used as input to, the batched repository-update facility supplied with earlier releases of CICSplex SM.

For example, suppose a DESCRIPTION field contains the value:

1) Describe Resource

If you specify INQUOTES(NO), which is the default, the EXTRACT routine will produce the following statement in the output data set:

DESCRIPTION(1) Describe Resource)

The CICSplex SM batched repository-update facility interprets this as a DESCRIPTION field containing the value 1, followed by two unrecognizable keywords.

If you specify INQUOTES(YES), EYU9BCSD places quotes around the field value. The output data set would contain the statement:

DESCRIPTION('1) Describe Resource')

This statement is interpreted correctly by the CICSplex SM batched repository-update facility.

---

## **Submitting a job to EYU9BCSD**

To submit a job to EYU9BCSD, you must specify the following DFHCSDUP EXTRACT command:

```
EXtract LIst(listname) | Group(groupname)
        USerprogram(EYU9BCSD) OBJECTS
```

Note the following requirements:

- EYU9BCSD must be invoked from the USERPROGRAM keyword; it cannot be called on the entry linkage to DFHCSDUP using the EXITS parameter.
- The OBJECTS keyword is required.

## submitting a job to EYU9BCSD

Figure 28 is an example of the JCL that you can use to run EYU9BCSD. This sample JCL is supplied in the member EYUJCLEX in the CICSTS13.CPSM.SEYUSAMP library.

```
//*-----  
//*  
//* Delete the extract output file for a rerun of this job  
//*  
//*-----  
//BR14OUT EXEC PGM=IEFBR14  
//EYUOUT DD DISP=(MOD,DELETE,DELETE),  
// DSN=cpsm.index.EYUOUT.group_name,  
// SPACE=(TRK,(1,1)),  
// UNIT=SYSDA
```

*Figure 28. Sample JCL to run EYU9BCSD for a CSD group list (Part 1 of 3)*

```

/*-----
/*
/* Extract the CSD Resource Definitions
/*
/*-----
//CSDXTRCT EXEC PGM=DFHCSDUP,
//          COND=(0,NE),
//          PARM='CSD(READONLY)'
//STEPLIB  DD DISP=SHR,DSN=cics.index.SDFHLOAD
//          DD DISP=SHR,DSN=cpsm.index.SEYUAUTH
//DFHCSD   DD DISP=SHR,DSN=cics.dfhcscd
//EYUOUT   DD DISP=(,CATLG,DELETE),
//          DSN=cpsm.index.EYUOUT.group_name,
//          SPACE=(TRK,(1,5)),
//          UNIT=SYSDA
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
EXTRACT USERPROGRAM(EYU9BCSD) OBJECTS GROUP(group_name)
/*
//EYUIN    DD *
RESGROUP(group_name)
RESINGRP(CSDGROUP)
CONNECTION(*)
CORBASERVER(*)
DB2CONN(*)
DB2ENTRY(*)
DB2TRAN(*)
DJAR(*)
DOCTEMPLATE(*)
ENQMODEL(*)
FILE(*)
JOURNAL(*)
JOURNALMODEL(*)
LSRPOOL(*)
MAPSET(*)
PARTITIONSET(*)
PARTNER(*)
PROFILE(*)
PROCESSTYPE(*)
PROGRAM(*)
REQUESTMODEL(*)
SESSIONS(*)
TCPIPSERVICE(*)
TDQUEUE(*)
TERMINAL(*)
TRANCLASS(*)
TRANSACTION(*)
TSMODEL(*)
TYPETERM(*)
/*

```

Figure 28. Sample JCL to run EYU9BCSD for a CSD group list (Part 2 of 3)

```

/*-----
/*
/* List EYUOUT to view errors
/*
/*-----
//LISTOUT EXEC PGM=IEBGENER
//SYSUT1  DD DISP=OLD,DSN=cpsm.index.EYUOUT.group_name
//SYSUT2  DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSIN   DD DUMMY

```

Figure 28. Sample JCL to run EYU9BCSD for a CSD group list (Part 3 of 3)

## submitting a job to EYU9BCSD

This example extracts resource definitions of all resource types from a specified CSD group (*group\_name*). At the same time, a CICSplex SM resource group (RESGROUP) is generated for that CSD group and associations are generated between the group and the resource definitions.

Modify the sample JCL to provide the following information:

### CSDXTRCT

The COMPAT keyword must be used on the CSDXTRCT PARM= statement to extract CICS resource attributes that are now obsolete; for example, the OMGINTERFACE, OMGMODULE, and OMGOPERATION attributes of a CICS Transaction Server for OS/390, Version 1 Release 3 REQUESTMODEL resource definition.

**EYUOUT** Identify *cpsm.index.EYUOUT.group\_name* as a sequential data set where the batched repository-update facility commands generated by EYU9BCSD can be written.

### STEPLIB

Identify:

- *cics.index.SDFHLOAD* as the CICS load library containing the DFHCSDUP module.
- *cpsm.index.SEYUAUTH* as the CICSplex SM load library containing EYU9BCSD.

**DFHCSD** Identify *cics.dfhcscd* as the VSAM data set that serves as the CSD file.

**SYSIN** Identify GROUP *group\_name* as the CSD group from which definitions are to be extracted. The group name may contain wildcards. Identify LIST *list\_name* as the CSD grouplist from which definitions are to be extracted. The list name may not contain wildcards.

For more details of the DFHCSDUP utility and its parameters, see the *CICS Resource Definition Guide*.

To extract definitions from all the groups in a CSD group list:

1. Change GROUP(*group\_name*) to LIST(*list\_name*).
2. Identify a CSD group list.
3. Change all other occurrences of *group\_name* to the appropriate *list\_name*.

**EYUIN** If you specify LIST(*list\_name*) in the SYSIN statement, change the RESGROUP value from *group\_name* to CSDGROUP. Specifying CSDGROUP generates a resource group for each CSD group in the group list.

---

## Output from EYU9BCSD

The CICSplex SM extract routine EYU9BCSD uses the data extracted from the CSD by the DFHCSDUP EXTRACT command to generate batched repository-update facility commands like those shown in Figure 29 on page 107.

```

/*
  RESGROUP(group_name)
  RESINGRP(CSDGROUP)
  PROCESSTYPE(*)
  TSMODEL(*)
  REQUESTMODEL(*)
*/
CONTEXT EYUPLX01;
CREATE RESGROUP      RESGROUP(group_name)
                     DESCRIPTION( )
                     ;
CREATE PROCDEF        NAME(CICSPRTY)
                     DESCRIPTION(Sample CBTS Processtype )
                     STATUS(ENABLED)
                     FILE(CBTSFILE)
                     AUDITLOG( )
                     AUDITLEVEL(OFF)
                     RESGROUP(group_name)
                     ;
CREATE TSMDEF         NAME(SAMPLE)
                     DESCRIPTION(Sample TS Model )
                     PREFIX(ABCD )
                     LOCATION(AUXILIARY)
                     RECOVERY(NO)
                     SECURITY(NO)
                     POOLNAME( )
                     REMOTESYSTEM( )
                     REMOTEPREFIX( )
                     RESGROUP(group_name)
                     ;
CREATE RQMDEF         NAME(REQMOD1)
                     DESCRIPTION(Sample Request Model )
                     OMGMODULE(*)
                     OMGINTERFACE(*)
                     OMGOPERATION(*)
                     TRANSID(TRNX)
                     RESGROUP(group_name)
                     ;

```

Figure 29. Sample edited output from EYU9BCSD

**Note:** If you did not specify a RESINGRP statement in your EYU9BCSD input, the CREATE xxxxDEF command is generated without a RESGROUP operand. That means the resource definition will not be associated with any resource group.

If multiple CSD records are found for the same resource type and name, multiple CREATE commands are generated, each with a different version number.

The batched repository-update facility CREATE commands are written to the EYUOUT output file you identified in the DFHCSDUP JCL.

## Editing the EYUOUT file

The CREATE commands are generated in the proper form and the proper sequence for use by the batched repository-update facility. However, before you submit the EYU9BCSD output to the batched repository-update facility, you must edit the EYUOUT file as follows:

### Context

The batched repository-update facility needs to know the CICSplex SM context for the resource definitions being processed. You must insert a CONTEXT statement at the beginning of the file to identify the CICSplex to which the updates apply. See Figure 29.

## output from EYU9BCSD

### Passwords

The CSD records extracted by DFHCSDUP do not include passwords. Any resource definitions that include passwords are generated with blanks (X'40') in the password fields, unless you add the passwords manually.

You can edit individual CREATE commands in the file to add the appropriate password fields. The passwords are then included in the resource definitions that CICSplex SM generates in the data repository. Be aware, however, that the batched repository-update facility output will include a visible record of the passwords that you entered.

### Obsolete Fields

The CSD records extracted by DFHCSDUP do not include fields that are considered obsolete, but which are retained for compatibility (such as RSL in a map set, partition set program, or transaction definition).

You can edit individual CREATE commands in the file to add the appropriate fields. The additional fields are then included in the resource definitions that CICSplex SM generates in the data repository.

## Submitting EYUOUT to the batched repository-update facility

Once you have made the necessary changes to the EYU9BCSD output file, you can submit it as input to the batched repository-update facility.

For more information on the batched repository-update facility, see the *CICSplex SM Administration* book.



## Chapter 19. Example BAS tasks

This chapter describes a number of typical BAS tasks.

### Establishing CICSplex connectivity

This example uses the Web User Interface (WUI) to create the pairs of connection and session definitions that are required to connect the CICS systems in the Starter Set CICSplex, EYUPLX01.

1. Create the first ISC connection definition.
  - a. From the WUI main menu, click **Administration views—>Basic CICS resource administration views—>CICS resource definitions—>Connection definitions** <sup>5</sup> to open the **Connection definition** tabular view.
  - b. If the current context is not EYUPLX01, specify EYUPLX01 in the **Context** field and click **Refresh**.
  - c. Click **Create** and complete the Create panel as follows:

<b>Connection definition name</b>	C001
<b>Description</b>	ISC Connection
<b>Access method</b>	Vtam
<b>Protocol</b>	Appc
<b>Nature of connection</b>	Notapplic
<b>APPC terminal on single session APPC link</b>	No
<b>Data stream type</b>	User
<b>Record format</b>	U
<b>Queue limit</b>	No
<b>Maximum queue time</b>	No
<b>Autoconnect sessions for VTAM</b>	Yes
<b>Connection status</b>	Yes
<b>Level of attach-time security</b>	Local
<b>Bind time security</b>	No
<b>Use default user ID</b>	N_a
<b>Persistent session recovery</b>	Sysdefault
<b>Exchange lognames (XLN) action</b>	Keep

5. You can also access this view from the **Fully functional Business Application Services (BAS) administration views** menu.

## establishing CICSplex connectivity

- Other fields can remain blank.
- d. Click **Yes** to confirm the operation. The new ISC connection is created and the **Connection definition** tabular view is redisplayed.
2. Create the associated session definition.
    - a. From the WUI main menu, click **Administration views—>CICS resource definition views—>Session definitions** to open the **Session definition** tabular view.
    - b. Click the **Create** button and complete the Create panel as follows:  
**Session definition name**  
S001  
**Definition version**  
0  
**Definition description**  
ISC session  
**Connection definition name**  
C001  
**Intercommunication link protocol**  
Appc  
**Maximum number of sessions in the group**  
4  
**Receive buffer size**  
4096  
**Session priority**  
0  
**Autoconnect option**  
YES  
**Session inservice**  
N\_a  
**Chain assembly required**  
Yes  
**Honor release requests**  
No  
**Honor disconnect requests**  
No  
**Recovery option**  
Sysdefault  
**XRF recovery notification option**  
N\_a
- Other fields can remain blank.
- c. Click **Yes** to confirm. The ISC session definition is created and the Session definition tabular view is redisplayed.
3. Define the link between the relevant CICS systems.
    - a. From the WUI main menu, click **Administration views—>Main administration views—>CICS system links** to open the **System link definition** tabular view.
    - b. Click the **Create** button and complete the Create panel as follows:  
**Primary CICS system name**  
EYUMAS1A  
**Secondary CICS system name**  
EYUMAS1B  
**Connection definition name**  
C001

**Connection definition version**

1

**Session definition name**

S001

**Session definition version**

1

- c. Click **Yes** to confirm creation of the link. The ISC link between EYUMAS1A and EYUMAS1B is created and the **System link definition** view is redisplayed.
4. Reuse the existing ISC link definition to define the links between other CICS systems.
  - a. In the **System link definition** view, select the entry for EYUMAS1A and click **Create**.  
The Create System Link panel is displayed, showing the values you entered when creating the link between EYUMAS1A and EYUMAS1B.
  - b. Update the **Primary CICS system name** field to create an ISC link between EYUMAS4A and EYUMAS1B.
  - c. Click **Yes** to confirm. The ISC link between EYUMAS4A and EYUMAS1B is created and the **System link definition** view is redisplayed.

Repeat this step to create ISC links between other CICS systems in the CICSplex.

---

## Defining resources for an application

This example uses the Web User Interface (WUI) to create the resource definitions that are required for a Workload Manager (WLM) application. The example describes the use of resource assignments and uses the **Fully functional Business Application Services (BAS) administration views** menu aimed at more advanced CICSplex SM users. This application is illustrated in the first CICSplex SM installation verification procedure (IVP1), as described in the *CICS Transaction Server for z/OS Installation Guide*.

1. Create a resource group definition.
  - a. From the WUI main menu, click **Administration views—>Fully functional Business Application Services (BAS) administration views—>CICS resource definitions—>Resource groups** <sup>6</sup> to open the **Resource group definition** tabular view.
  - b. If the current context is not EYUPLX01, specify EYUPLX01 in the **Context** field and click **Refresh**.
  - c. Click the **Create** action button and complete the Create panel as follows:
 

**Resource group name**  
EYUBAG01

**Description**  
SSET — WLM IVP application

**Mode value**  
NO

Other fields can remain blank.

- d. Click **Yes** to confirm. The **Resource group definition** tabular view is redisplayed.

---

6. You can also access this view from the **Fully functional Business Application Services (BAS) administration views** menu.

## defining resources for an application

At this point, group EYUBAG01 exists, but is empty. The next step is to create the resource definitions that constitute the WLM application and add them to the group.

### 2. Create the transaction definition.

- a. From the WUI main menu, click **Administration views—>Fully functional Business Application Services (BAS) administration views—>CICS resource definitions—>Transaction definitions** to open the **Transaction definition** tabular view.

- b. Click the **Create** action button and complete the Create panel as follows:

**Transaction definition name**

ETVP

**Definition version**

0

**Description**

SSET — Workload IVP application

**Resource group name**

EYUBAG01

**First program name**

EYUWLMVP

**Size in bytes of transaction work area**

0

**Transaction profile**

DFHCICST

**Enabled status**

Enabled

**Task data location**

Below

**Task data key**

User

**Storage clearance status**

No

**Runaway timeout value**

SYSTEM

**Shutdown run status**

Disabled

**Transaction isolation option**

Yes

**Dynamic routing option**

Yes

**Dynamic routing status**

Yes

**Remote system name**

1A3A

**Remote transaction name**

ETVP

**Transaction routing profile**

DFHCICSS

**Queuing on local system**

N\_a

**Transaction priority**

1

**Transaction class number**

1

**Transaction class name**

DFHTCL00

**CICS failure action**

Backout

**In-doubt wait option**

Yes

**In-doubt wait time (days, hours and minutes)**

0

**In-doubt failure processing action**

Backout

**Resource security checking**

No

**Command level security option**

No

Other fields can remain blank.

- c. Click **Yes** to confirm. The **Transaction definition** tabular view is redisplayed.
3. Create the program definition.
  - a. From the WUI main menu, click **Administration views—>Fully functional Business Application Services (BAS) administration views—>CICS resource definition views—>Program definitions** to open the **Program definition** tabular view.
  - b. Click the **Create** action button and complete the Create panel as follows:
 

<b>Program definition name</b>	EYUWLMVP
<b>Definition version</b>	0
<b>Definition description</b>	SSET — Workload IVP definition
<b>Resource group name</b>	EYUBAG01
<b>Language</b>	Assembler
<b>Reload new copy</b>	No
<b>Residence status</b>	No
<b>Program storage release</b>	Normal
<b>Use program from the link pack area (LPA)</b>	No
<b>Enabled status</b>	Enabled
<b>Resource security value</b>	0
<b>Display execution diagnostic facility (EDF) screens</b>	Yes
<b>Data location</b>	Below
<b>Program execution key</b>	User
<b>Concurrency status</b>	Quasirent
<b>Dynamic routing status</b>	No

## defining resources for an application

### API subset restriction type

Fullapi

### Java virtual machine (JVM) profile

DFHJVMPR

### Hot pooling status

No

Other fields can remain blank.

- c. Click **Yes** to confirm. The **Program Definition** tabular view is redisplayed.
4. Create the first file definition.

- a. From the WUI main menu, click **Administration views—>Fully functional Business Application Services (BAS) administration views—>CICS resource definitions—>File definitions** to open the **File definition** tabular view.

- b. Click the **Create** action button and complete the Create panel as follows:

### File definition name

EYUFIL01

### Definition version

0

### Definition description

Payroll updates — Local

### Data set name

PAYROLL.EUTL3

### Record level sharing (RLS) file access mode

No

### Local shared resources pool ID

1

### Default level of read integrity

Uncommitted

### VSAM data set name sharing

Allreqs

### Maximum concurrent requests against file

30

### Initial status

Enabled

### File open time

Firstref

### Disposition of file

Share

### Number of data buffers

31

### Number of index buffers

30

### Data table type

No

### Maximum number of records in data table

NOLIMIT

### Table name

IANSTFILE

### Update model

Locking

### Load type

No

### Record format

Variable

**Operations (Add, browse, delete, read, update)**

Yes (for all)

**Read operations recorded on journal**

None

**Synchronous auto journalling for input**

No

**Rewrite/delete operations recorded on journal**

No

**Add operations recorded on journal**

No

**Synchronous auto journalling for output**

No

**Type of recovery**

None

**CICS VSAM file backup type**

Static

Other fields can remain blank.

- c. Click **Yes** to confirm the file creation. The file definition for EYUFIL01 is created and the **File definition** tabular view is redisplayed.

5. Reuse the existing file definition to create a definition for another file.

- a. In the **File definition** tabular view, select the entry for EYUFIL01 and click the **Create** action button.

The Create File Definition panel is displayed, showing the values you entered when creating EYUFIL01.

- b. Update the following fields:
  - Change **File definition name** to EYUFIL02
  - Make the following fields blank:
    - Local shared resources pool ID**
    - Maximum concurrent requests against file**
    - Number of data buffers**
    - Number of index buffers**

- c. Click **Yes**. The file definition for EYUFIL02 is created and the **File definition** tabular view is redisplayed.

All of the resource definitions for the WLM application have now been created. The next step is to assign those resources to the appropriate CICS systems.

6. Create a resource assignment for the transaction definition.

- a. From the WUI main menu, click **Administration views—>Fully functional Business Application Services (BAS) administration views—>Resource assignments** to open the **Resource assignment definition** tabular view.

- b. Click the **Create** action button to open a **Resource assignment definition** Create screen like the one shown in Figure 30 on page 116.

## defining resources for an application

**IBM** CICSPlex SM Web User Interface

Open  
[Home](#)  
[Repeat last menu](#)  
+ **General views**  
+ **View menus**  
+ **Favorites**  
**Special**  
[Favorites editor](#)  
[View editor](#)  
[User editor](#)  
[New window](#)  
[Close window](#)  
[Sign off](#)

### Resource assignment definition

Resource assignment definition name ☒ EYUBAA01

Description ☒ Assign transaction definitions Aa

**Selection criteria**

Resource group name ☒ EYUBAG01

Type of resource to be processed by assignment ☒ TRANDEF

Filter string ☐ Aa Attribute filter (if any)?

**Deployment criteria**

Resource usage type ☒ REMOTE

Resource usage qualifier ☒ DYNAMI

Referenced resource assignment name ☐

**Deployment scope(s)**

Target scope name ☒ EYUMAS1A

Related scope name ☒ EYUMAS1B

**Override criteria**

Scope that override is applied to ☒ NONE

Override string ☐ Aa

No Yes

Resource name: RASGNDEF, View name: EYUSTARTRASGNDEF.CREATE

Figure 30. Completed Resource assignment definition screen

Complete the Create panel as follows:

**Resource assignment definition name**  
EYUBAA01

**Description**  
SSET — Assign transaction definitions

**Resource group name**  
EYUBAG01

**Type of resource to be processed by assignment**  
TRANDEF

**Resource usage type**  
Remote

**Resource usage qualifier**  
Dynam

**Target scope name**  
EYUMAS1A

**Related scope name**  
EYUMAS1B

**Scope that override is applied to**  
Related



Other fields can remain blank.

- c. Click **Yes**. The resource assignment for transaction definitions is created and the **Resource assignment definition** tabular view is redisplayed.

**Note:** This example does not make use of filter and override expressions for the assignment.

7. Create a resource assignment for the program definition.

- a. In the **Resource assignment definition** tabular view, click the **Create** action button and complete the Create panel as follows:

**Resource assignment definition name**

EYUBAA02

**Description**

SSET — Assign program definitions

**Target scope name**

EYUCSG03

**Resource group name**

EYUBAG01

**Type of resource to be processed by assignment**

PROGDEF

**Resource usage type**

Local

**Resource usage qualifier**

N\_a

**Scope that override is applied to**

Related

Other fields can remain blank.

- b. Click **Yes**. The resource assignment for program definitions is created and the **Resource assignment definition** tabular view is redisplayed.

8. Create a resource assignment for the file definitions.

- a. In the **Resource assignment definition** tabular view, click the **Create** action button and complete the Create panel as follows:

**Resource assignment definition name**

EYUBAA03

**Description**

SSET — Assign file definitions

**Target scope name**

EYUCSG03

**Related scope name**

EYUMAS4A

**Resource group name**

EYUBAG01

**Type of resource to be processed by assignment**

FILEDEF

**Resource usage type**

Remote

**Resource usage qualifier**

N\_a

**Scope that override is applied to**

Related

Other fields can remain blank.

- b. Click **Yes**. The resource assignment for file definitions is created and the **Resource assignment definition** tabular view is redisplayed.

## defining resources for an application

All of the resource assignments for the resource definitions have now been created. The next step is to group all of the resources together and identify them as an application.

9. Create a resource description for the WLM application.
  - a. From the WUI main menu, click **Administration views—>Fully functional Business Application Services (BAS) administration views—>Resource descriptions** to open the **Resource description definition** tabular view.
  - b. Click the **Create** action button and complete the Create panel as follows:  
**Resource description name**  
EYUBAD01  
**Description**  
SSET — WLM IVP Application  
**Logical scope registration**  
Yes  
**Logical scope name**  
WLMIVP  
**Autoinstall request type**  
Yes  
  
Other fields can remain blank.
  - c. Click **Yes**. The resource description for the WLMIVP application is created and the **Resource description definition** tabular view is redisplayed.

**Note:** This example does not make use of the fields relating to resource groups and the target and related scopes to which they apply. You already provided this information in the resource assignments you created.

10. Associate the resource assignment for each resource type with the WLMIVP resource description.
  - a. From the WUI main menu, click **Administration views—>Fully functional Business Application Services (BAS) administration views—>Resource assignments** to open the **Resource assignment definition** tabular view.
  - b. Select the entry for EYUBAA01 (the resource assignment for transaction definitions) and click the **Add to Resource description** button. Complete the **Add to Resource description** panel as follows:  
**Description name**  
EYUBAD01  
**Description**  
Trans Assigned to WLMIVP  
  
Other fields can remain blank.
  - c. Click **Yes**. The association between EYUBAA01 and EYUBAD01 is created and the **Resource assignment definition** tabular view is redisplayed.

Repeat this step for resource assignments EYUBAA02 and EYUBAA03.

11. Modify the CICS system definitions to indicate that automatic resource installation is required each time the target systems are cold started.
  - a. From the WUI main menu, click **Administration views—>Topology administration views—>CICS system definitions** to open the **CICS system definition** tabular view.
  - b. Select the entry for the CICS system EYUMAS1A. and click the **Update** button.

- c. Locate the **Business Application Services** section of the panel and update the fields as follows:
    - Install BAS resources option**  
Coldonly
    - BAS install failure action**  
Continue
  - d. Click **Yes**. The CICS system definition is updated and the **CICS system definition** tabular view is redisplayed.
- Repeat this step for other CICS systems in the target scope.

---

## Installing CICS resources dynamically

This section provides examples of the various methods that CICSplex SM supports for installing resources dynamically into active CICS systems using the Web User Interface (WUI). These methods are similar to the installation options provided by CEDA.

- “Installing an individual resource”
- “Installing resources from a resource group”
- “Installing a resource description” on page 120.

### Installing an individual resource

This example installs an individual program into an active CICS system.

1. Display a list of the programs defined to CICSplex SM.
  - a. From the WUI main menu, click **Administration views—>Basic CICS resource administration views—>CICS resource definitions—>Program definitions** to open the **Program definition** tabular view.
  - b. If the current context is not EYUPLX01, specify EYUPLX01 in the **Context** field and click **Refresh**.
2. Install the EYUWLMVP program.
  - a. Select the entry for EYUWLMVP and click the **Install** action button. The **Install** is displayed.
  - b. In the **Target Scope value** field type in EYUMAS2A and click **Yes**. Press Enter. The program EYUWLMVP is installed in EYUMAS2A and the **Program definition** tabular view is redisplayed.

### Installing resources from a resource group

This example installs the programs defined in a given resource group into an active CICS system.

1. Display a list of the resource groups defined to CICSplex SM.
  - a. From the WUI main menu, click **Administration views—>Basic CICS resource administration views—>Resource groups** to open the **Resource group definition** tabular view.
  - b. If the current context is not EYUPLX01, specify EYUPLX01 in the **Context** field and click **Refresh**.
2. Install the programs in resource group EYUBAG01.
  - a. Select the entry for EYUBAG01 and click the **Install** action button.
  - b. Complete the **Install** panel as follows:
    - Resource type**  
PROGDEF

## installing CICS resources dynamically

### Target scope value

EYUMAS2A

The other fields can remain unchanged.

- c. Click **Yes**. All of the programs defined in EYUBAG01 are installed in EYUMAS2A and the **Resource group definition** tabular view is redisplayed.

## Installing a resource description

This example installs all of the resources associated with a given resource description into one or more active CICS systems.

1. Display a list of the resource descriptions defined to CICSplex SM.
  - a. From the WUI main menu, click **Administration views—>Basic CICS resource administration views—>Resource descriptions** to open the **Resource description** tabular view.
  - b. If the current context is not EYUPLX01, specify EYUPLX01 in the **Context** field and click **Refresh**.
2. Install resource description EYUBAD01.
  - a. Select the entry for EYUBAD01 and click the **Install** action button. The **Install** panel is displayed.
  - b. Accept the supplied values and click **Yes**.

All of the resources associated with EYUBAD01 are installed according to the target and related scopes named in that resource description. The **Resource description** tabular view is redisplayed.

## Chapter 20. Connection resource definitions

Connection definitions identify remote systems that a CICS system communicates with using intersystem communication (ISC) or multiple region operation (MRO).

### Accessing BAS connection definitions

To display information about existing connection definitions:

**Issue the command:**

CONNDEF [*resdef*]

where *resdef* is the specific or generic name of a connection definition. If you omit this parameter, the view, illustrated in Figure 31, includes information about all existing connection definitions within the current context.

**Select:**

CONNDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 ==CONNDEF=====EYUPLX01=EYUPLX01==27FEB2005==11:30:30=CPSM=====3====
CMD Name      Ver      Created      Changed      Description
-----
C001          1 1/17/97 17:06 1/17/97 17:06 ISC Connection
C001          2 1/18/97 12:41 1/18/97 12:41 ISC Connection - Test
C002          1 1/17/97 17:22 1/17/97 17:22 MRO Connection
```

Figure 31. The CONNDEF view

### Working with the CONNDEF view

The topics covered in this section are:

- “Availability” of the CONNDEF view
- “Action commands” for the CONNDEF view.
- “Hyperlink fields” on page 122 for the CONNDEF view.

#### Availability

Connections can be defined for all managed CICS systems.

#### Action commands

Table 3 summarizes the action commands you can use with the CONNDEF view.

Table 3. CONNDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a connection definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of connection definitions, as described on page 29.

Table 3. CONNDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a connection definition in the data repository.
CREate	CRE	<p>The format of the resulting panels is similar to that shown in Figure 32 on page 123 and Figure 33 on page 123. All of the fields are nonmodifiable.</p> <p>Create a connection definition and add it to the data repository, as described on page 122.</p>
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a connection in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a connection definition from the data repository, as described on page 33.
n/a	UPD	<p>Update a connection definition in the data repository.</p> <p>The format of the resulting panels is similar to that shown in Figure 32 and Figure 33 on page 123. Most of the fields are modifiable.</p>

## Hyperlink fields

There are no hyperlink fields in the CONNDEF view.

---

## Defining connections using BAS

To create a BAS connection definition:

1. Enter the create primary (CREate) or line (CRE) action command from the CONNDEF view.
2. Fill in the fields on the first panel (see Figure 32 on page 123):

```

COMMAND ==>
Name      ==> C00A      Version ==> 0
Description ==> System A Connection
RESGROUP  ==>
User Data  ==>

AccessMethod ==> VTAM      Access Method (VTAM, INDIRECT, IRC, XCF, XM,
                             NETBIOS, TCPIP)
Attachsec    ==> LOCAL     Attach-time security
                             (LOCAL,IDENTIFY,MIXIDPE,PERSISTENT,VERIFY)
AutoConnect  ==> NO        Autoconnect sessions to VTAM (NO,ALL,YES)
ConnType     ==> NOTAPPLIC Nature of connection (GENERIC, SPECIFIC,
                             APPC, NETBIOS, TCPIP, NOTAPPLIC)
DataStream   ==> USER     Data stream type (USER,LMS,SCS,STRFIELD,3270)
IndirectSys   ==>          Intermediate system name
Inservice    ==> YES       Connection status (YES,NO)
MaxQueTime   ==> NO        Maximum queue time (NO, 0-9999, blank)
NetName      ==>          Network name
Protocol     ==> APPC      Protocol (APPC,EXCI,LU61,NOTAPPLIC)

Press ENTER to create CONNDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 32. Creating a connection definition - Page 1

3. To add the connection definition to the data repository, press Enter. To continue creating a connection definition, issue the DOWN command. Otherwise, issue one of the other commands available from this panel.
4. Fill in the fields on the second panels (see Figure 33):

```

COMMAND ==>
Name      C00A      Version ==> 0

PSRecovery  ==> SYSDEFAULT Persistent system recovery
                             (NONE, SYSDEFAULT, N/A)
QueueLimit  ==> NO     Queue limit (NO, 0-9999, blank)
RecordFormat ==> U     Record format (U, VB)

RemoteName   ==>          APPC connection name
RemoteSysNet ==>          Remote system name
RemoteSystem ==>          Intercommunication link name

SecurityName ==>          Security name for remote system
SingleSess   ==> NO      APPC term on single session (YES,NO,N/A)
XlnAction    ==> KEEP    Logname receive action (KEEP,FORCE,N/A)
BindPassword ==>          Bind security password
BindSecurity ==> NO      Bind security (YES, NO)
Usedfltuser  ==> N/A     Use default user (YES, NO, N/A)

Press ENTER to create CONNDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 33. Creating a connection definition - Page 2

5. To continue:
  - For all systems , go to step 6.
6. To add the connection definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS connection definitions

To install a connection in an active system, issue the INS command.

After installation of a CONNDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM CONNECT command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE CONNECTION command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE CONNECTION command; see *CICS System Programming Reference*.

---

## Connection definition attributes

The connection resource definition attribute descriptions are:

### AccessMethod

specifies the access method to be used for this connection.

**VTAM** VTAM intersystem communication.

### INDIRECT

Communication between the local CICS system and the system defined by this connection definition is through the system named in the Indirect Sys field.

**XCF** MVS coupling facility

**IRC** The interregion communication (IRC) program DFHIRP.

**XM** MVS cross-memory services.

### AttachSec

specifies the level of attach-time user security required for the connection.

### IDENTIFY

Incoming attach requests must specify a user identifier. Enter IDENTIFY when the connecting system has a security manager; for example, if it is another CICS system.

### LOCAL

The authority of the user is taken to be that of the link itself, and you rely on link security alone to protect your resource. If the PROTOCOL attribute on the CONNECTION definition is LU6.1, you must specify LOCAL.

### MIXIDPE

Incoming attach requests may be using either or both IDENTIFY or PERSISTENT security types. The security type actually used depends on the incoming attach request.

### PERSISTENT

Incoming attach requests must specify a user identifier and a user password on the first attach request.

### VERIFY

Incoming attach requests must specify a user identifier and a user password.

### AutoConnect

Indicate whether autoconnect processing is to occur for the connection.

### BindPassword (APPC only)

For APPC links on systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, specify a password of up to 16 hexadecimal characters (0 – 9, A – F).



The password does not appear while you are typing it and it is not displayed on the update or browse panel. If you specify a password, the BindPassword field name appears highlighted on the update and browse panels to indicate a password exists; the field itself contains blanks. You can use the update panel to change an existing password or add a new password.

#### **BindSecurity (APPC only)**

specifies whether an ESM is being used for bind-time security.

**NO** No external bind-time security is required.

**YES** If security is active and the XAPPC system initialization parameter is set to YES, an ESM is called.

#### **ConnType**

For external CICS interface (EXCI) connections, this specifies the nature of the connection.

##### **GENERIC**

The connection is for communication from a non-CICS client program to the CICS system, and is generic. A generic connection is an MRO link with a number of sessions to be shared by multiple EXCI users. For a generic connection you cannot specify the NETNAME attribute.

##### **SPECIFIC**

The connection is for communication from a non-CICS client program to the CICS region, and is specific. A specific connection is an MRO link with one or more sessions dedicated to a single user in a client program. For a specific connection, NETNAME is mandatory.

**APPC** Connection to another CICS system using APPC.

##### **NOTAPPLIC**

The connection does not use EXCI.

#### **Datastream**

specifies the type of data stream.

**LMS** Specify the type of data stream.

**SCS** The data stream is an SCS data stream as defined in the LUTYPE6.1 architecture.

##### **STRFIELD**

The data stream is a structured field data stream as defined in the LUTYPE6.1 architecture.

**USER** User-defined data stream.

**3270** The data stream is a 3270 data stream as defined in the type 6.1 logical unit (LUTYPE6.1) architecture.

#### **Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

#### **IndirectSys**

specifies the name of an intermediate system that is used to relay communications between this system and the remote system. The name can be up to four characters in length.

You may name an intermediate system only if you specify INDIRECT in the AccessMthod field.

#### **Inservice**

specifies the status of the connection that is being defined.

- NO** The connection can neither receive messages nor transmit input.
- YES** Transactions may be initiated and messages may automatically be sent across the connection.

**MaxQueTime**

specifies a time control on the wait time for queued allocate requests waiting for free sessions on a connection that appears to be unresponsive. The maximum queue time is used only if a queue limit is specified in the QueueLimit field, and then the time limit is applied only when the queue length has reached the queue limit value.

- NO** No limit on the length of time that allocate requests can remain queued.
- nnnn** The approximate upper limit on the time that allocate requests can be queued for a connection that appears to be unresponsive. The number represents seconds in the range 0 through 9999.
- If you do not specify a queue limit, leave this field blank.

**Name**

Specify a 1- to 4-character name for the connection definition.

**NetName**

Specify the 1– to 8–character network name of the remote system.

**Protocol**

specifies the type of protocol that is to be used for the link.

**APPC (LUTYPE6.2 protocol)**

Advanced program-to-program communication, or APPC protocol. This is the default value for ACCESSMETHOD(VTAM).

- EXCI** The external CICS interface. Specify this to indicate that this connection is for use by a non-CICS client program using the external CICS interface.

- LU61** LUTYPE6.1 protocol. Specify this for CICS-CICS ISC or CICS-IMS™ ISC, but not for MRO.

**NOTAPPLIC**

For CICS-CICS MRO links when you specify LU61 on the associated session definition (SESSDEF).

**PSRecovery**

In a CICS region running with persistent sessions support, this specifies whether, and how, LU6.2 sessions are recovered on system restart within the persistent session delay interval.

- NONE** All sessions are unbound as out-of-service with no CNOS recovery.

**SYSDEFAULT**

If a failed CICS system is restarted within the persistent session delay interval, the following actions occur:

- User modegroups are recovered to the SESSIONS RECOVPTION value.
- The SNASVCMG modegroup is recovered.
- The connection is returned in ACQUIRED state and the last negotiated CNOS state is returned

- N/A** The PSRecovery value does not apply to this definition and should not be validated.

**QueueLimit**

specifies the maximum number of allocate requests that CICS is to queue while waiting for free sessions:

**NO** There is no limit set to the number of allocate requests that CICS can queue while waiting for a free session.

**nnnn** The maximum number of allocate requests, in the range 0 through 9999, that CICS can queue on the connection while waiting for a free session.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment.

**RecordFormat**

specifies the type of SNA chain.

**U** A single, unblocked stream of data.

**VB** The SNA chain is formatted according to the VLVB standard as defined in the LUTYPE6.1 architecture.

**RemoteName**

specifies the name by which the APPC connection for transaction routing is known in the system or region that owns the connection. The name can be up to four characters in length.

**RemoteSysNet**

specifies the network name (APPLID) of the system that owns the connection. The name can be up to four characters in length.

**RemoteSystem**

specifies the name that identifies the intercommunication link to the system that owns the connection. The name can be up to four characters in length.

**RESGROUP**

(Optional.) The name of the resource definition group to which this definition is to be automatically added.

**SecurityName**

For APPC and LU6.1 links only, this is the security name of the remote system.

The security name (or USERID on the sessions definition) must be a valid RACF userid on your system.

**SingleSess**

specifies whether the definition is for an APPC terminal on a single session APPC link to CICS.

**NO** The definition is not for a single session APPC link to CICS.

**YES** The definition is for an APPC terminal on a single session APPC link to CICS.

**N/A** The SingleSess value does not apply to this definition and should not be validated by CICSplex SM.

**Usedfltuser (APPC and MRO only)**

specifies the action that is taken when an inbound FMH5 does not contain the security information implied by the ATTACHSEC attribute.

**NO** The attach request is rejected, and a protocol violation message is issued.

**YES** Use the default user ID specified in the DFLUSER SIT parameter for the CICS system.

**N/A** The Usedfltuser value does not apply to this definition and should not be validated by CICSplex SM.

For more information, see *CICS RACF® Security Guide* .

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the connection. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**XlnAction**

for APPC and IRC links on systems running the CICS TS for OS/390, specifies the action to be taken when a new logname is received from the partner system.

**FORCE**

The predefined decisions for in-doubt UOWs (as defined by the indoubt attributes of the transaction definition) are implemented, before any new work with the new logname is started. CICS also deletes any information retained for possible resolution of UOWs that were in-doubt at the partner system.

**KEEP** Recovery information is kept, and no action is taken for in-doubt units of work.

**N/A** The XlnAction value does not apply to this definition and should not be validated by CICSplex SM.

## Chapter 21. CorbaServer definitions

EJCODEF definitions describe the physical and operational characteristics of CorbaServers.

### Accessing BAS CorbaServer definitions

To display information about existing CorbaServer definitions:

**Issue the command:**

EJCODEF [*resdef*]

where *resdef* is the specific or generic name of a CorbaServer definition. If you omit this parameter, the view, illustrated in Figure 34, includes information about all existing CorbaServer definitions within the current context and scope.

**Select:**

EJCODEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==EJCODEF=====EYUPLX01=EYUPLX01==27FEB2005==11:30:30=CPSM==
CMD Name Ver Created Changed Description
-----
EJC1 1 2000/03/31 17:06 2000/03/31 17:06 CorbaServer 1
C001 2 2000/03/31 12:41 2000/03/31 12:41 CorbaServer 2
C002 1 2000/03/31 17:22 2000/03/31 17:22 CorbaServer 3
```

Figure 34. The EJCODEF view

### Working with the EJCODEF view

The topics covered in this section are:

- “Availability” of the EJCODEF view
- “Action commands” for the EJCODEF view.
- “Hyperlink fields” on page 130 for the EJCODEF view.

#### Availability

CorbaServers can be defined for CICS Transaction Server Version 2.1 and later systems.

#### Action commands

Table 4 summarizes the action commands you can use with the EJCODEF view.

Table 4. EJCODEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a CorbaServer definition to a resource group, as described in “Adding resource definitions to a resource group” on page 44.

Table 4. EJCODEF view action commands (continued)

Primary command	Line command	Description
ALTER	n/a	Apply global changes to a set of CorbaServer definitions, as described in Figure 9 on page 29.
n/a	BRO	Browse a CorbaServer definition in the data repository.
CREate	CRE	The format of the resulting panel is similar to that shown in Figure 35 on page 131. All of the fields are nonmodifiable. Create a CorbaServer definition and add it to the data repository, as described in “Defining CorbaServers using BAS.”
n/a	INS	For systems running CICS Transaction Server Version 2.1 and later, install a CorbaServer in an active system, as described in “Installing BAS CorbaServer definitions” on page 131.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove <i>resdef version</i>	REM	Remove a CorbaServer definition from the data repository, as described in “Remove a resource definition” on page 33.
n/a	UPD	Update a CorbaServer definition in the data repository. The format of the resulting panel is similar to that shown in Figure 35 on page 131. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the EJCODEF view.

---

## Defining CorbaServers using BAS

Figure 35 on page 131 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the EJCODEF view.

```

----- Create CorbaServer Definition for MCPLEX1
COMMAND ==>

Name          ==>          Version  ==> 0          More:  +
Description    ==>
RESGROUP      ==>
User Data     ==>

JNDIPrefix    ==>
              ==>
              ==>
              ==>
              ==>
Sessbeantime   ==> 000010      000000-992359 (DDHHMM)
Shelf         ==> /var/cicsts/
              ==>
              ==>
              ==>
DjarDir        ==>
              ==>
              ==>
              ==>
              ==>
Status         ==> ENABLED      ENABLED | DISABLED
AutoPublish    ==> NO           NO | YES

SERVER ORB ATTRIBUTES
Host           ==>
              ==>
              ==>
              ==>
Port           ==>          1-65535
SSL            ==> NO         YES | NO | CLIENTCERT
SSLPort        ==>          NO | 1-65535
Unauth         ==>          TCIPSERVICE name
ClientCert     ==>          TCIPSERVICE name
SSLUnauth      ==>          TCIPSERVICE name
Asserted       ==>          TCIPSERVICE name
Ciphers        ==>

OUTBOUND SECURITY
Outprivacy     ==> SUPPORTED    REQUIRED | SUPPORTED | NOTSUPPORTED
CLIENT ORB ATTRIBUTES
Certificate     ==>

Press ENTER to create EJCODEF.
Type END or CANCEL to cancel without creating

```

Figure 35. Creating a CorbaServer definition

## Installing BAS CorbaServer definitions

To install a CorbaServer in an active system, issue the INS command. CorbaServers may be installed only with a local scope.

After installation of a EJCODEF resource definition, you can enquire about the resultant object using:

- CICSplex SM
  - The CICSplex SM EJCOSE command; see *CICSplex SM Operations Views Reference*.
  - A Web User Interface view for the EJCOSE managed object (EYUSTARTEJCOSE.TABULAR is the Starter Set supplied default); see *CICSplex SM Web User Interface Guide*.

- The EXEC CPSM GET OBJECT(EJCOSE) command; see *CICSplex SM Application Programming Reference*.
- CICS
  - The CICS CEMT INQUIRE CORBASERVER command; see *CICS Supplied Transactions*.
  - The EXEC CICS INQUIRE CORBASERVER command; see *CICS System Programming Reference*.

---

## CorbaServer definition attributes

The CorbaServer resource definition attribute descriptions are:

### ASSERTED

specifies the 8-character name of a TCPIP SERVICE that defines the characteristics of the port which is used for inbound IIOP with asserted identity authentication.

### AUTOPUBLISH({NO|YES})

specifies whether the contents of a deployed JAR file should be automatically published to the namespace when the DJAR definition is successfully installed into this CorbaServer. “Successfully installed” means that the DJAR is INSERVICE. The default is NO.

Specifying YES causes beans to be automatically published to the namespace when a DJAR is successfully installed. *It does **not** cause beans to be automatically retracted when a DJAR is discarded.*

### Certificate

specifies the label of an X.509 certificate that is used as a client certificate during the SSL handshake for outbound IIOP connections. If this attribute is omitted, the default certificate defined in the key ring for the CICS region user ID is used.

Certificate labels can be up to 32 bytes long.

The distinguished name within the specified certificate provides inputs to the distinguished name user-replaceable program, DFHEJDNX.

### Ciphers

(Optional) Specifies a value up to 28 cipher suites, in the form of hexadecimal pairs. Any hexadecimal can be specified, but currently the only recognized values are 01, 02, 03, 04, 05, 09, 0A, 2F, and 35. Additional values can be added at a later time. No separating characters are necessary between each pair.

The default is blank.

Ciphers is valid only on CICS Transaction Server 3.1 and later systems .

### ClientCert

specifies the 8-character name of a TCPIP SERVICE that defines the characteristics of the port which is used for inbound IIOP with SSL client certificate authentication. This attribute is optional.

### DJARDIR(directoryname)

specifies the 1–255 character fully-qualified name of the deployed JAR file directory (also known as the *pickup directory*) on HFS. The acceptable characters are A-Z a-z 0-9 . \_ /. For information about entering mixed case information, see *CICS Resource Definition Guide*.



If specified, DJARDIR must refer to a valid HFS directory to which the CICS region has at least read access.

The pickup directory is where you place deployed JAR files that you want to be installed into the CorbaServer by the CICS scanning mechanism. When the CORBASERVER definition is installed, CICS scans the pickup directory and automatically installs any deployed JAR files it finds there. (CICS assumes that any files in the pickup directory that end in .jar and have a base filename of 1–32 characters are EJB deployed JAR files. It copies them to its shelf directory and dynamically creates and installs DJAR definitions for them.)

After the CorbaServer has been installed, you can add more deployed JAR files to the pickup directory. CICS installs them:

- When instructed to by means of an explicit EXEC CICS or CEMT PERFORM CORBASERVER SCAN command. (This command works when the CorbaServer is in any state except DISCARDING.)

or

- When instructed to by the resource manager for enterprise beans (otherwise known as the RM for enterprise beans), which issues a PERFORM CORBASERVER SCAN command on your behalf. (The resource manager for enterprise beans is described in the *CICS Operations and Utilities Guide*).

After the CorbaServer has been installed, you can also put updated versions of deployed JAR files into the pickup directory. When you issue a PERFORM CORBASERVER SCAN command (either explicitly or by means of the RM for enterprise beans), CICS detects that an update has occurred and updates both the LASTMODTIME, DATESTAMP, and TIMESTAMP attributes of the installed DJAR definition and the shelf copy of the deployed JAR file, to reflect the pickup directory change.

#### Notes:

1. If you use the scanning mechanism in a production region, be aware of the security implications: specifically, the possibility of CICS command security on DJAR definitions being circumvented. To guard against this, we recommend that user IDs given write access to the HFS deployed JAR file directory should be restricted to those given RACF authority to create and update DJAR and CORBASERVER definitions.
2. If you do not specify a value for DJARDIR, no automatic scan takes place on installation of the CorbaServer. PERFORM CORBASERVER SCAN commands (whether explicit or issued by the RM for enterprise beans) will fail.
3. The installation of the CorbaServer fails if the value of DJARDIR is not blank but does not refer to a valid HFS directory to which the CICS region has read access.
4. Different CorbaServers may share the same DJARDIR directory. Typically, all the AORs in a multi-region EJB server would share the same DJARDIR directory.
5. CICS ignores any deployed JAR files in the pickup directory that have the same name *and* the same date and time stamps as currently-installed DJAR resources. A deployed JAR file with the same name but a later date-and-time stamp than an installed DJAR is treated as an update.
6. Deleting a previously-installed deployed JAR file from the pickup directory does not remove the DJAR resource from CICS; its beans are still available. To make the beans unavailable, you must discard the DJAR resource.

7. An invalid deployed JAR file is not detected early (when the pickup directory is scanned), but when the EJB environment attempts to open it. The DJAR resource for an invalid JAR file becomes UNRESOLVED. CICS outputs a message to indicate what is wrong with the JAR file. The message is sent to the CICS log and to the “EJB event” user-replaceable program.
8. After every scan of the pickup directory, CICS outputs a message indicating the number of new and the number of updated deployed JAR files found during the scan.

**Host**

specifies the TCP/IP host name, or a string containing the dotted-decimal TCP/IP address, of this logical EJB/CORBA server.

The host name is included in Interoperable Object References (IORs) exported for objects in this logical server. Clients must use this host name to access the CICS listener regions.

If you are using connection optimization by means of Domain Name System (DNS) registration, to balance client connections across the listener regions of your logical IIOP or EJB server, specify the generic host name to be quoted by client connection requests. (The generic host name is the DNSGROUP value defined in the TCPIP SERVICE resource definition, suffixed by the name of the domain or subdomain managed by the MVS system name server. This is established by your MVS TCP/IP system administrator.) See *Java Applications in CICS* for more information about using DNS with IIOP and enterprise beans.

**JNDIPrefix**

specifies a JNDI prefix of up to 255 characters which is used when enterprise beans are published to the Java™ Naming and Directory Interface (JNDI). The acceptable characters are A-Z a-z 0-9 . \_ /. For information about entering mixed case information, see *CICS Resource Definition Guide*.

Publishing a bean means binding a reference to the home of the bean in a namespace. The naming context in which the bean is bound is named, relative to the initial context defined for the CICS region, using a concatenation of the JNDIPREFIX attribute of the CorbaServer and the name of the bean. The JNDIPREFIX attribute must match the prefix specified by the client when it uses JNDI to obtain a reference to the home interface for a bean. For more information, see *Java Applications in CICS*.

CICS limits the use of the / character in the JNDI prefix field to prevent the use of empty atomic components, which are denoted by an empty string. The / character may not be the first or last character of the prefix. Also, two or more consecutive instances of the / character are not allowed anywhere in the prefix.

If this option is not specified, no prefix is added when publishing enterprise beans to JNDI.

**Name**

The 1-4 character name of a CorbaServer.

**Port**

This attribute is obsolete, but is supported to provide compatibility with earlier releases of CICS. If this attribute is present in the CORBASERVER definition, the following attributes must be blank:

ASSERTED  
CLIENTCERT  
SSLUNAUTH  
UNAUTH  
OUTPRIVACY

If you define a CORBASERVER with this attribute, you can only install it on CICS Transaction Server for z/OS, Version 2 Release 1. See *CICS Resource Definition Guide* for more information.

#### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

#### Sessbeantime

specifies, in days, hours, and minutes, the period of inactivity after which a session bean may be discarded by CICS.

**00,00,00**

Session beans will not be timed out.

**00,00,10**

Session beans may be discarded after ten minutes of inactivity. This is the default value.

*dd, hh, mm*

Session beans may be discarded after the specified period of inactivity. The maximum value you can specify is 99 days, 23 hours, and 59 minutes.

#### Shelf

specifies the 1–255 character fully-qualified name of a directory (a *shelf*, primarily for *deployed JAR files*) on HFS. The acceptable characters are A-Z a-z 0-9 . \_ /. For information about entering mixed case information, see *CICS Resource Definition Guide*.

CICS regions into which the CORBASERVER definition is installed must have full permissions to the shelf directory—read, write, and the ability to create subdirectories.

A single shelf directory may be shared by multiple CICS regions and by multiple CORBASERVER definitions. Each CICS region uses a separate subdirectory to keep its files separate from those of other CICS regions. The subdirectories for CORBASERVER definitions are contained within the subdirectories of the CICS regions into which they are installed. After a CICS region performs a cold or initial start, it deletes its subdirectories from the shelf before trying to use the shelf.

You should not modify the contents of a shelf that is referred to by an installed CORBASERVER definition. If you do, the effects are unpredictable.

#### SSL

This attribute is obsolete, but is supported to provide compatibility with earlier releases of CICS. If this attribute is present in the CORBASERVER definition, the following attributes must be blank:

ASSERTED  
CLIENTCERT  
SSLUNAUTH  
UNAUTH  
OUTPRIVACY

If you define a CORBASERVER with this attribute, you can only install it on CICS Transaction Server for z/OS, Version 2 Release 1. See *CICS Resource Definition Guide* for more information.

#### SSLPort

This attribute is obsolete, but is supported to provide compatibility with earlier releases of CICS. If this attribute is present in the CORBASERVER definition, the following attributes must be blank:

ASSERTED  
CLIENTCERT  
SSLUNAUTH  
UNAUTH  
OUTPRIVACY

If you define a CORBASERVER with this attribute, you can only install it on CICS Transaction Server for z/OS, Version 2 Release 1. See *CICS Resource Definition Guide* for more information.

**SSLUnauth**

specifies the 8-character name of a TCPIP SERVICE that defines the characteristics of the port which is used for inbound IOP with SSL but no client authentication. This attribute is optional.

**Unauth**

specifies the 8-character name of a TCPIP SERVICE that defines the characteristics of the port which is used for inbound IOP with no authentication.

Note that you must specify a value for the UNAUTH attribute when you define a CORBASERVER, even if you intend that all inbound requests to this CORBASERVER should be authenticated. This is because the PORTNUMBER attribute of the TCPIP SERVICE is required in order to construct IORs that are exported from this logical server.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the file key segments. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

## Chapter 22. CICS-deployed JAR file definitions

EJDJDEF definitions describe the physical and operational characteristics of deployed JAR files.

### Accessing deployed JAR file definitions

To display information about existing deployed JAR file definitions:

**Issue the command:**

EJDJDEF [*resdef*]

where *resdef* is the specific or generic name of a deployed JAR file definition. If you omit this parameter, the view, illustrated in Figure 36, includes information about all existing deployed JAR file definitions within the current context.

**Select:**

EJDJDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 ==EJDJDEF=====EYUPLX01=EYUPLX01==27FEB2005==11:30:30=CPSM=====3====
CMD Name      Ver      Created      Changed      Description
-----
EJSJAR01      1 2000/03/31 17:06 2000/03/31 17:06 Archive 1
EJSJAR02      2 2000/03/31 12:41 2000/03/31 12:41 Archive 2
WJSJAR3       1 2000/03/31 17:22 2000/03/31 17:22 Archive 3
```

Figure 36. The EJDJDEF view

### Working with the EJDJDEF view

The topics covered in this section are:

- “Availability” of the EJDJDEF view
- “Action commands” for the EJDJDEF view.
- “Hyperlink fields” on page 138 for the EJDJDEF view.

#### Availability

CICS-deployed JAR files can be defined for CICS Transaction Server for OS/390 Version 2.1 and later systems.

#### Action commands

Table 5 summarizes the action commands you can use with the EJDJDEF view.

Table 5. EJDJDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a CICS-deployed JAR file definition to a resource group, as described in “Adding resource definitions to a resource group” on page 44.

Table 5. EJDJDEF view action commands (continued)

Primary command	Line command	Description
ALTER	n/a	Apply global changes to a set of CICS-deployed JAR file definitions as described in Figure 9 on page 29.
n/a	BRO	Browse a CICS-deployed JAR file definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 37 on page 139. All of the fields are nonmodifiable.
CREate	CRE	Create a CICS-deployed JAR file definition and add it to the data repository, as described in Table 5 on page 137.
n/a	INS	For systems running CICS Transaction Server Version 2.1 and later, install a CICS-deployed JAR file in an active system, as described in “Installing BAS CICS-deployed JAR file definitions” on page 139.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a CICS-deployed JAR file definition from the data repository, as described in “Remove a resource definition” on page 33.
n/a	UPD	Update a CICS-deployed JAR file definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 37 on page 139. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the EJDJDEF view.

---

## Defining a CICS-deployed JAR file using BAS

Figure 37 on page 139 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the EJDJDEF view

```

COMMAND ==>
Name      ==> DJAR1      Version ==> 0
Description ==> JAR file 1
RESGROUP  ==>
User Data ==>

CORBA Server ==>          Associated CORBA Server name

                                HFS Path Name of Jar File
HFSFile    ==>
            ==>
            ==>
            ==>
            ==>

Press ENTER to create EJDJDEF.
Type END or CANCEL to cancel without creating.

```

Figure 37. Creating a CICS-deployed JAR file definition

## Installing BAS CICS-deployed JAR file definitions

To install a CICS-deployed JAR file in an active system, issue the INS command. CICS-deployed JAR files may be installed only with a local scope.

After installation of a EJDJDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM EJDJAR command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE DJAR command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE DJAR command; see *CICS System Programming Reference*.

## CICS-deployed JAR file definition attributes

The deployed JAR file definition attributes are:

### CORBA Server

specifies the 1-4 character name of the CorbaServer in which this DJAR is to be installed. The acceptable characters are A-Z a-z 0-9. For information about entering mixed case information, see *CICS Resource Definition Guide*.

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### HFSFile

specifies the 1-255 character fully-qualified file name of the deployed JAR file on HFS. The acceptable characters are A-Z a-z 0-9 . - \_ /. The name is case-sensitive, and may not contain spaces. The name must not end with a /, and must not contain consecutive instances of the / character. For information about entering mixed case information, see *CICS Resource Definition Guide*.

### Name

The 1-8 character name of the DJAR.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

## EJDJDEF

### **User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the request model. CICSPlex SM makes no use of this user data.

### **Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.



## Chapter 23. DB2 connection resource definitions

A DB2 connection definition (DB2CDEF), establishes the global characteristics of connections between CICS regions and a DB2 subsystem via the DB2 attachment facility.

### Accessing BAS DB2 connection definitions

To display information about existing DB2 connection definitions:

**Issue the command:**

DB2CDEF [*resdef*]

where *resdef* is the specific or generic name of a DB2 connection definition. If you omit this parameter, the view, illustrated in Figure 38, includes information about all existing DB2 connection definitions within the current context.

**Select:**

DB2CDEF from the ADMRES menu.

```
27FEB2005 12:14:36 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 =DB2CDEF=====EYUPLX01==EYUPLX01==27FEB2005==12:14:36====CPSM=====4
CMD NAME      Ver      Created      Changed      Description
-----
DB2CON01      1      7/22/97 12:12  7/22/97 12:13  Test
DB2CON02      1      7/22/97 12:13  7/22/97 12:13  Test
DB2CON03      1      7/22/97 12:13  7/22/97 12:14  Test
DB2CON04      1      7/22/97 12:14  7/22/97 12:14  Test
DB2CON05      1      7/22/97 12:14  7/22/97 12:14  Test
```

Figure 38. The DB2CDEF view

### Working with the DB2CDEF view

The topics covered in this section are:

- “Availability” of the DB2CDEF view
- “Action commands” for the DB2CDEF view.
- “Hyperlink fields” on page 142 for the DB2CDEF view.

#### Availability

DB2 connections can be defined for all managed CICS systems from CICS TS for OS/390 Release 2 onwards.

#### Action commands

Table 6 summarizes the action commands you can use with the DB2CDEF view.

Table 6. DB2CDEF view action commands

Primary command	Line command	Description
ADD <i>resdef</i> version	ADD	Add a DB2 connection definition to a resource group, as described on page 44.

Table 6. DB2CDEF view action commands (continued)

Primary command	Line command	Description
ALTER	n/a	Apply global changes to a set of DB2 connection definitions, as described on page 29.
n/a	BRO	Browse a DB2 connection definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 39 on page 143 and Figure 40 on page 143. All of the fields are nonmodifiable.
CREate	CRE	Create a DB2 connection definition and add it to the data repository, as described on page 142.
n/a	INS	For systems running CICS TS for OS/390 Release 2 or later, install a DB2 connection in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove <i>resdef version</i>	REM	Remove a DB2 connection definition from the data repository, as described on page 33.
n/a	UPD	Update a DB2 connection definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 39 on page 143 and Figure 40 on page 143. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the DB2CDEF view.

## Defining DB2 connections using BAS

To create a DB2 connection definition:

1. Issue the create primary (CREate) or line (CRE) action command from the DB2CDEF view.
2. Fill in the fields on the first DB2 connection definition panel (see Figure 39 on page 143):

```

----- Create DB2 Connection Definition for EYUPLX01 Page 1 -----
COMMAND ==>
  Name          ==> db2con05          Version ==> 1
  Description    ==> Test
  RESGROUP      ==>
  User Data     ==>
  CONNECTION ATTRIBUTES
  CONnectorror  ==> SQLCODE          Sqlcode | Abend
  DB2id         ==>
  DB2Groupid    ==>
  MSGQUEUE1     ==> CDB2  MSGQUEUE2  ==> MSGQUEUE3  ==>
  Nontermrel    ==> YES              Yes | No
  Purgecycle    ==> 00 , 30          0 - 59
  Resyncmember  ==> YES              Yes | No
  Signid        ==>
  STANbymode    ==> RECONNECT        Reconnect | Connect | Noconnect
  STATsqueue    ==> CDB2
  TCblimit      ==> 12                4 - 2000
  THREADError   ==> N906D            N906D | N906 | Abend

PRESS ENTER to create DB2CDEF.
Enter UP or DOWN to view other screens.

```

Figure 39. Creating a DB2 connection definition - Page 1

3. To add the DB2 connection definition to the data repository, press Enter. To continue creating a DB2 connection definition, issue the DOWN command. Otherwise, issue one of the other commands available from this panel.
4. Fill in the fields in the second DB2 connection definition panel (see Figure 40):

```

----- Update DB2 Connection Definition for EYUPLX01 Page 2 -----
COMMAND ==>
  Name          DB2CON05          Version  1

  POOL THREAD ATTRIBUTES
  ACcountrec    ==> NONE          None | TXid | TAsk | Uow
  AUTHId        ==>
  AUTHType      ==> USERID        Userid | Opid | Group | Sign | TErm
                                   | TX
  DRollback     ==> YES           Yes | No
  PLAN          ==>
  PLANExitname  ==> DSNCUEXT
  Priority       ==> HIGH          High | Equal | Low
  THREADLimit   ==> 0003          3-2000
  THREADWait    ==> YES           Yes | No
  COMMAND THREAD ATTRIBUTES
  COMAUTHId     ==>
  COMAUTHType   ==> USERID        Userid | Opid | Group | Sign | TErm
                                   | TX
  COMThreadlim  ==> 0001          0-2000

Press ENTER to update DB2CDEF.

```

Figure 40. Creating a DB2 connection definition - Page 2

5. To add the DB2 connection definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS DB2 connection definitions

To install a DB2 connection in an active system, issue the INS command.

After installation of a DB2CDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM DB2CONN command; see *CICSplex System Manager Operations Views Reference*.

- The CICS CEMT INQUIRE DB2CONN command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE DB2CONN command; see *CICS System Programming Reference*.

---

## DB2 connection definition attributes

The attributes are described in the categories:

- “General attributes”
- “Connection attributes”
- “Pool thread attributes” on page 147
- “Command thread attributes” on page 149

### General attributes

The general attributes of a DB2CONN are:

#### Name

The name to identify a DB2 connection definition. The name can be up to eight characters in length.

#### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

#### Version

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

#### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to automatically added.

#### User data

(Optional.) Three 8-character fields provided for any site-specific data related to the connection. CICSplex SM makes no use of this user data.

### Connection attributes

The connection attributes of a DB2CONN are:

#### CONNectorerror

Specifies the way that the information, that CICS is not connected to DB2 because the attachment facility is in 'standby mode', is reported back to an application that has issued an SQL request.

#### ABEND

The application abends with abend code AEY9.

#### SQLCODE

The application receives a -923 sqlcode. SQLCODE cannot be specified if STANDBYMODE is set to NOCONNECT.

#### DB2Groupid

Specifies the group ID (up to four characters) of a data sharing group of DB2 subsystems. The group attach facility connects CICS to any active member of this data sharing group. If the DB2Groupid attribute is left blank, group attach is not used. You cannot specify both DB2Groupid and DB2ID.

#### DB2ID

Specifies the name of the DB2 subsystem to which the CICS DB2 attachment

facility is to connect. By default this field is blank. The DB2ID set in the installed DB2CONN definition can be overridden by a DB2 subsystem ID specified on a DSNB STRT command, or by a DB2ID specified in a SET DB2CONN command. If the DB2ID in the installed DB2CONN definition is left blank, you can specify a DB2 subsystem ID on the INITPARM system initialization parameter. If no DB2 subsystem ID is specified by any of these means, the default DB2ID of blanks is replaced by DSN when the connection is attempted. Hence, the hierarchy for determining the DB2 subsystem is as follows:

1. Use the subsystem ID if specified in a DSNB STRT command.
2. Use the DB2ID in the installed DB2CONN if not blank.
3. Use the subsystem ID if specified on the INITPARM when the DB2ID in the last installed DB2CONN is blank (or has subsequently been set to blanks). On any startup, INITPARM is always used if the last installed DB2CONN contained a blank DB2ID, even if the DB2ID was subsequently changed using a SET command.
4. Use a default subsystem ID of DSN.

#### **MSGQUEUE1**

Specifies the first transient data destination to which unsolicited messages from the CICS DB2 attachment facility are sent. This first destination cannot be blank.

#### **MSGQUEUE2**

Specifies a second transient data destination to which unsolicited messages from the CICS DB2 attachment facility are sent.

#### **MSGQUEUE3**

Specifies a third transient data destination to which unsolicited messages from the CICS DB2 attachment facility are sent.

#### **Nontermre1**

Specifies whether or not a non-terminal transaction releases threads for reuse at intermediate syncpoints.

**NO** Non-terminal transactions do not release threads for reuse at intermediate syncpoints.

**YES** Non-terminal transactions release threads for reuse at intermediate syncpoints.

#### **Purgecycle**

Specifies the duration, in minutes and seconds, of the purge cycle for protected threads. The default is 0, 30; that is, 30 seconds.

A protected thread is not terminated immediately when it is released. It is terminated only after two completed purge cycles, if it has not been reused in the meantime. Therefore, if the purge cycle is set to 30 seconds, a protected thread is purged 30 - 60 seconds after it is released. The first purge cycle after the attachment facility starts is always 5 minutes. After that the purgecycle values are applied. An unprotected thread is terminated when it is released (at syncpoint or end of task) if there are no other transactions waiting for a thread on that DB2ENTRY. Only threads belonging to a DB2ENTRY can be protected. Pool threads and command threads cannot be protected.

#### **Resyncmember**

If you are using group attach, use the Resyncmember attribute to select the strategy that CICS adopts if outstanding units of work are being held for the last DB2 data sharing group member to which CICS was connected.

**YES** indicates that if outstanding units of work are held, you require

resynchronisation with the last DB2 data sharing group member to which CICS was connected. CICS ignores the group attach facility and waits until it can reconnect to that last connected DB2 data sharing group member, to resolve the indoubt units of work.

**NO** indicates that you do not require resynchronisation. CICS makes one attempt to reconnect to the last connected DB2 data sharing group member. If this attempt is successful, the indoubt units of work can be resolved. If it is unsuccessful, then CICS uses group attach to connect to any active member of the DB2 data sharing group, and a warning message (DFHDB2064) is issued stating that there may be unresolved indoubt units of work with the last member of the group to which CICS was connected.

### **Signid**

Specifies the authorization ID to be used by the CICS DB2 attachment facility when signing on to DB2 for pool and DB2ENTRY threads that specify AUTHTYPE(SIGN). The default is blanks which are replaced by the applid of the CICS system when the DB2CONN is installed.

**Note:** If you specify a user ID on the SIGNID attribute, CICS performs a surrogate user check against the user ID performing the installation. Similarly, the CICS region user ID is subject to a surrogate user check during group list installation on a CICS cold or initial start.

### **STANbymode**

Specifies the action to be taken by the CICS DB2 attachment facility if DB2 is not active when an attempt is made to connect CICS to DB2.

#### **CONNECT**

Specifies that the CICS DB2 attachment facility is to wait in 'standbymode' for DB2 to become active. If the connection is made, and DB2 subsequently fails, the CICS DB2 attachment facility terminates.

#### **NOCONNECT**

Specifies that the CICS DB2 attachment facility is to terminate.

#### **RECONNECT**

Specifies that the CICS DB2 attachment facility is to go into 'standby mode' and wait for DB2. If DB2 subsequently fails after the connection is made, the CICS DB2 attachment facility reverts to 'standby mode', and CICS subsequently reconnects to DB2 when DB2 recovers.

### **STATsqueue**

Specifies the transient data destination for CICS DB2 attachment facility statistics produced when the CICS DB2 attachment facility is shut down.

### **TCblimit**

Specifies the maximum number of TCBs that can be used to process DB2 requests. The default is 12. The minimum number is 4 and the maximum is 2000. When connected to DB2 Version 5 or earlier, the CICS DB2 attachment facility creates the TCBs in the form of subtasks up to the limit specified by TCBLIMIT. Each of these subtasks identifies to DB2 and creates a connection into DB2. When connected to DB2 Version 6 or later, CICS creates open TCBs (up to the limit specified by the system initialization parameter MAXOPENTCBS). The TCBLIMIT attribute of the DB2CONN definition governs how many of the open TCBs can be used to access DB2 — that is, how many of them can identify to DB2 and create a connection into DB2.

The TCBLIMIT value controls the total number of threads for the CICS region. For this reason, the recommended value for TCBLIMIT is the sum of all the thread limit values (that is, the sum of all THREADLIMIT attributes on the DB2 connection and DB2 entry resource definitions, plus the COMTHREADLIMIT value on the DB2 connection definition) up to the limit of 2000. The value you choose for TCBLIMIT can be exceeded by increasing THREADLIMIT values for selected subtasks.

When determining the number for TCBLIMIT, you must consider the amount you specified for the MAX USERS parameter on DB2 installation panel DSNTIPE.

#### **THREAEError**

Specifies the processing that is to occur following a create thread error.

#### **ABEND**

When the first SQL error is detected, CICS takes a transaction dump for abend code AD2S, AD2T, or AD2U, depending on the type of error. For the first error, the transaction does not abend. For a second or subsequent SQL error, the transaction abends with abend code AD2S, AD2T, or AD2U. The transaction must be terminated and reinitialized before it is allowed to issue another SQL request.

#### **N906D**

A transaction dump is to be taken and the DSNCSQL RMI associated with the transaction is *not* to be disabled. The transaction receives a -906 SQLCODE if another SQL is issued, unless the transaction issues SYNCPOINT ROLLBACK. SYNCPOINT without the ROLLBACK option results in an ASP3 or ASP7 abend. The transaction dump records an abend of AD2S, AD2T or AD2U.

**N906** The DSNCSQL RMI associated with the transaction is *not* to be disabled. The transaction receives a -906 SQLCODE if another SQL request is issued, unless the transaction issues a SYNCPOINT ROLLBACK. SYNCPOINT without the ROLLBACK option results in an ASP3 or ASP7 abend.

## **Pool thread attributes**

The pool thread attributes of a DB2CONN are:

#### **ACcountrec**

Specifies the minimum amount of DB2 accounting required for transactions using pool threads. The specified minimum may be exceeded as described in the following options.

**NONE** No accounting records are required for transactions using pool threads.

**TASK** The CICS DB2 attachment facility causes a minimum of one accounting record for each CICS task to be produced.

**TXID** The CICS DB2 attachment facility causes an accounting record to be produced when the transid using the thread changes.

**UOW** The CICS DB2 attachment facility causes an accounting record to be produced for each UOW, assuming that the thread is released at the end of the UOW.

#### **AUTHId**

Specifies the ID that should be used for security checking when using pool threads. If AUTHId is specified, AUTHTYPE may not be specified.



**AUTHtype**

Specifies the type of ID that can be used for threads on this DB2ENTRY. If AUTHTYPE is specified, AUTHID may not be specified.

**USERID**

The user ID associated with the CICS transaction is used as the authorization ID. If the user ID is less than eight characters in length, it is padded on the right with blanks.

When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the user ID to DB2 as the primary authorization ID and the RACF group ID to DB2 as the secondary ID. When the sample sign-on exit is used, there is no difference between AUTHTYPE(USERID) and AUTHTYPE(GROUP).

**OPID** The operator identification that is associated with the userid that is associated with the CICS transaction is used as the authorization ID. The 3-character operator identification is padded on the right with blanks to form the 8-character authorization ID.

**GROUP**

Specifies the user ID and the connected group name as the authorization ID.

To use the GROUP option, the CICS system must have SEC=YES specified in the CICS system initialization table (SIT).

If no RACF group ID is available for this USERID, an 8-character field of blanks is passed to DB2 as the group ID.

**SIGN** Specifies that the SIGNID attribute of the DB2 connection definition is to be used as the resource authorization ID.

**TERM** Specifies the terminal identification as an authorization ID. The 4-character terminal identification is padded on the right with blanks to form the 8-character authorization ID.

If the transaction is not associated with a terminal (for example, if it is initiated with a START command), do not specify AUTHTYPE(TERM).

**TX** Specifies the transaction identification as the authorization ID. The 4-character transaction identification is padded on the right with blanks to form the 8-character authorization ID.

**DRollback**

Specifies whether or not the CICS DB2 attachment facility should initiate a SYNCPOINT ROLLBACK if a transaction is selected as the victim of a deadlock resolution.

**YES** The attachment facility issues a syncpoint rollback before returning control to the application. An SQL return code of -911 is returned to the program.

Do not specify YES if the pool is used by transactions running enterprise beans as part of an OTS transaction; CICS syncpoint rollback is not allowed in an OTS transaction. Consider defining a DB2ENTRY which specifies DROLLBACK(NO) for use by transactions which run enterprise beans as part of an OTS transaction.

**NO** The attachment facility does not initiate a rollback for a transaction. An SQL return code of -913 is returned to the application.



**PLAN**

Specifies the name of the plan to be used for all pool threads. If PLAN is specified, PLANEXITNAME may not be specified.

**PLANExitname**

Specifies the name of the dynamic plan exit to be used for pool threads. If you change the PLAN and PLANEXITNAME while there are active transactions for the pool, the next time the transaction releases the thread the plan/exit will be determined using the new rules. If PLANEXITNAME is specified, PLAN may not be specified.

**PRiority**

Specifies the priority of the pool thread subtasks relative to the CICS main task (QR TCB). If CICS is connected to DB2 Version 6 or later, this setting is ignored, as the task runs on an open L8 TCB that has the same priority as the QR TCB. However, the priority value specified in the DB2CONN definition is still installed into the relevant control block, in case CICS connects to a lower level of DB2 at a later time.

**HIGH** Subtasks attain a higher priority than the CICS main task from which the subtask was generated.

**EQUAL**

Subtasks have equal priority with the CICS main task.

**LOW** Subtasks have a lower priority than the CICS main task.

**THREADLimit**

Specifies the current maximum number of pool threads that the CICS DB2 attachment facility allows to be active before requests are made to wait or are rejected (subject to the THREADWAIT attribute). The default threadlimit (3) is also the minimum you can specify. The maximum value must not be greater than the value specified for TCBLIMIT.

**THREADWait**

Specifies whether or not transactions should wait for a pool thread, or be abended if the number of active pool threads reaches the thread limit.

The CICS DB2 attachment issues a unique abend code AD3T, message DFHDB2011, when THREADWAIT=NO is coded and the number of pool threads is exceeded.

**YES** If all threads are busy, a transaction must wait until one becomes available. A transaction can wait as long as CICS allows it to wait, generally until a thread becomes available.

**NO** If all threads are busy, the transaction is terminated with abend code AD3T.

## Command thread attributes

The DB2 connection definition command thread attribute descriptions are:

**COMAUTHid**

Specifies what id the CICS DB2 attachment facility should use for security checking when using command threads. If COMAUTHid is specified, COMAUTHType may not be specified.

**COMAUTHType**

Specifies the type of id that can be used for security checking when using command threads. If COMAUTHType is specified, COMAUTHid may not be specified.

**USERID**

The 1 to 8-character userid associated with the CICS transaction is used as the authorization ID. The name can be up to eight characters in length.

When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the USERID to DB2 as the primary authorization ID and the RACF group ID to DB2 as the secondary ID. When the sample sign-on exit is used, there is no difference between COMAUTHTYPE(USERID) and COMAUTHTYPE(GROUP).

**OPID** The operator identification associated with the userid that is associated with the CICS transaction sign-on facility is used as the authorization ID (three characters padded to eight).

**GROUP**

Specifies the 1 to 8-character USERID and the connected group name as the authorization ID.

To use the CGROUP option the CICS system must have SEC=YES specified in the CICS system initialization table (SIT).

If no RACF group ID is available for this USERID, an 8-character field of blanks is passed to DB2 as the group ID.

**SIGN** Specifies that the SIGNID attribute of the DB2CONN is used as the resource authorization ID.

**TERM** Specifies the terminal identification (four characters padded to eight) as an authorization ID. An authorization ID cannot be obtained in this manner if a terminal is not connected with the transaction.

If a transaction is started (using a CICS command) and has no terminal associated with it, the COMAUTHTYPE(TERM) should not be used.

**TX** Specifies the transaction identification (four characters padded to eight) as the authorization ID.

**COMThreadlim**

The number specifies the current maximum number of command threads the CICS DB2 attachment facility allows active before requests overflow to the pool.

## Chapter 24. DB2 entry resource definitions

A DB2 entry definition (DB2EDEF) specifies the resources required by CICS transactions that access a DB2 subsystem via the DB2 attachment facility.

### Accessing BAS DB2 entry definitions

To display information about existing DB2 entry definitions:

**Issue the command:**

DB2EDEF [*resdef*]

where *resdef* is the specific name of a DB2 entry definition. If you omit this parameter, the view, illustrated in Figure 41, includes information about all existing DB2 entry definitions within the current context.

**Select:**

DB2EDEF from the ADMRES menu.

```
27FEB2005 12:14:36 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 =DB2EDEF=====EYUPLX01==EYUPLX01==27FEB2005==12:56:43====CPSM=====5
SCROLL ==> PAGE
CMD NAME      Ver      Created      Changed      Description
-----
db2ent01      1      7/22/97 12:51  7/22/97 12:51  Test
db2ent02      1      7/22/97 12:51  7/22/97 12:51  Test
db2ent03      1      7/22/97 12:51  7/22/97 12:51  Test
db2ent03      2      7/22/97 12:52  7/22/97 12:53  Test
db2ent04      1      7/22/97 12:56  7/22/97 12:56  Test
```

Figure 41. The DB2EDEF view

### Working with the DB2EDEF view

The topics covered in this section are:

- “Availability” of the DB2EDEF view
- “Action commands” for the DB2EDEF view
- “Hyperlink fields” on page 152 for the DB2EDEF view

#### Availability

DB2 entries can be defined for all managed CICS systems from CICS TS for OS/390 Release 2 onwards.

#### Action commands

Table 7 summarizes the action commands you can use with the DB2EDEF view.

Table 7. DB2EDEF view action commands

Primary command	Line command	Description
ADD <i>resdef</i> version	ADD	Add a DB2 entry definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of DB2 entry definitions, as described on page 29.

Table 7. DB2EDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a DB2 entry definition in the data repository.
CREate	CRE	The format of the resulting panel is similar to that shown in Figure 42 on page 153. All of the fields are nonmodifiable. Create a DB2 entry definition and add it to the data repository, as described on page 152.
n/a	INS	For systems running CICS TS for OS/390 Release 2 or later, install a DB2 entry in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove <i>resdef version</i>	REM	Remove a DB2 entry definition from the data repository, as described on page 33.
n/a	UPD	Update a DB2 entry definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 42 on page 153. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the DB2EDEF view.

## Defining DB2 entries using BAS

To create a DB2 connection definition:

1. Issue the create primary (CREate) or line (CRE) action command from the DB2EDEF view.
2. Fill in the fields in the DB2 entry definition panel (see Figure 42 on page 153):

```

----- Create DB2 Entry Definition for EYUPLX01 -----
COMMAND ==>
  Name          ==> db2ent04          Version ==> 0
  Description    ==> Test
  RESGROUP      ==>
  User Data     ==>
  THREAD SELECTION ATTRIBUTES
  TRansid       ==>
  THREAD OPERATION ATTRIBUTES
  ACountrec     ==> NONE              None | TXid | TAsk | Uow
  AUTHId        ==>
  AUTHType      ==> USERID           Userid | Opid | Group | Sign | TErm
                                          | TX
  DRollback     ==> YES              Yes | No
  PLAN          ==>
  PLANExitname  ==> DSNCEXT
  PRiority      ==> HIGH             High | Equal | Low
  PROtectnum    ==> 0000             0-2000
  THREADLimit   ==> 0000             0-2000
  THREADWait    ==> POOL             Pool | Yes | No

Press ENTER to create DB2EDEF.

```

Figure 42. Creating a DB2 entry definition

3. To add the DB2 connection definition to the data repository, press Enter.

## Installing BAS DB2 entry definitions

To, install a DB2 entry in an active system, issue the INS command.

After installation of a DB2EDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM DB2NTRY command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE DB2ENTRY command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE DB2ENTRY command; see *CICS System Programming Reference*.

## DB2 entry definition attributes

The attributes are described in the following categories:

- “General attributes”
- “Thread selection attribute” on page 154
- “Thread operation attributes” on page 154.

### General attributes

The general attributes of a DB2ENTRY are:

#### Name

One to eight character name to identify a DB2 entry definition.

#### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

#### Version

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to automatically added.

### User data

(Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSplex SM makes no use of this user data.

## Thread selection attribute

The thread selection attributes of a DB2ENTRY are:

### TRansid

Specifies the transaction id associated with the entry. Only one transaction can be specified here. However, the use of one or more wildcard characters in the TRANSID (see the *CICS Resource Definition Guide*) allows a group of transactions to be represented. Additional transactions can be defined for this entry by defining a DB2 transaction that refers to this DB2 entry. Transid is optional on a DB2 entry. All transactions can be associated with a DB2 entry means of DB2 transactions instead. However, if only one transaction is associated with a DB2 entry it is easier to specify it on the DB2 entry.

**Note:** Specifying a transaction id here causes a 'ghost' DB2 transaction object to be created when the DB2 entry definition is installed, and such DB2 transaction objects may appear on SYSRES and RDSCPROC views.

**Attention:** You can change the value of selected BAS objects using the Override field of a RASGNDEF object, as described in Chapter 54, “RASGNDEF (resource assignments) view,” on page 345. If you use this method to change the Transid field of a DB2EDEF and there is a resulting clash of names of DB2TRAN objects, CICSplex SM does not detect this fact as part of inconsistent set processing.

## Thread operation attributes

The thread operation attributes of a DB2ENTRY are:

### ACcountrec

Specifies the minimum amount of DB2 accounting required for transactions using this DB2 entry. The specified minimum may be exceeded, as described in the following options.

**NONE** No accounting records are required for transactions using threads from this DB2ENTRY

**TASK** The CICS DB2 attachment facility causes a minimum of one accounting record for each CICS task to be produced.

A transaction containing multiple UOWs (assuming the thread is released at syncpoint) may use a different thread for each UOW. The result may be that an accounting record is produced for each UOW.

**TXID** The CICS DB2 attachment facility causes an accounting record to be produced when the transid using the thread changes.

**UOW** The CICS DB2 attachment facility causes an accounting to be produced for each UOW, assuming that the thread is released at the end of the UOW.

**AUTHID**

Specifies the id to be used for security checking when using this DB2ENTRY. If AUTHID is specified, AUTHTYPE may not be specified.

**AUTHType**

Specifies the type of id that can be used for security checking when using this DB2ENTRY. If AUTHType is specified, AUTHID may not be specified.

**USERID**

The USERID associated with the CICS transaction is used as the authorization ID.

When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the user ID to DB2 as the primary authorization ID and the connected group name to DB2 as the secondary ID. When the sample sign-on exit is used, there is no difference between AUTHTYPE(USERID) and AUTHTYPE(GROUP).

**OPID** The operator identification that is associated with the userid that is associated with the CICS transaction sign-on facility, is used as the authorization ID (three characters padded to eight).

**GROUP**

Specifies the 1 to 8-character USERID and the connected group name as the authorization ID.

To use the GROUP option the CICS system must have RACF external security SEC=YES specified in the CICS system initialization table (SIT).

If no RACF group ID is available for this USERID, an 8-character field of blanks is passed to DB2 as the group ID.

**SIGN** Specifies that the SIGNID attribute of the DB2CONN is used as the resource authorization ID.

**TERM** Specifies the terminal identification (four characters padded to eight) as an authorization ID. An authorization ID cannot be obtained in this manner if a terminal is not connected with the transaction.

If a transaction is started (using a CICS command) and has no terminal associated with it, AUTHTYPE(TERM) should not be used.

**TX** Specifies the transaction identification (four characters padded to eight) as the authorization ID.

**DRollback**

Specifies whether or not the CICS DB2 attachment should initiate a SYNCPOINT rollback in the event of a transaction being selected as victim of a deadlock resolution.

**YES** The attachment facility issues a syncpoint rollback before returning control to the application. An SQL return code of -911 is returned to the program.

Do not specify YES if the DB2ENTRY is used by transactions running enterprise beans as part of an OTS transaction; CICS syncpoint rollback is not allowed in an OTS transaction.

**NO** The attachment facility does not to initiate a rollback for this transaction. An SQL return code of -913 is returned to the application.

**PLAN**

Specifies the name of the plan to be used for this entry. If PLAN is specified, PLANEXITNAME cannot be specified.

**PLANExitname**

Specifies the name of the dynamic plan exit to be used for this DB2 entry definition. If you change the PLAN and PLANEXITNAME while there are active transactions for the DB2 entry definition, the next time the transaction releases the thread, the plan/exit will be determined using the new rules. If PLANEXITNAME is specified, PLAN cannot be specified.

**PRIority**

Specifies the priority of the thread subtasks for this DB2ENTRY relative to the CICS main task (QR TCB). If CICS is connected to DB2 Version 6 or later, this setting is ignored, as the task runs on an open L8 TCB that has the same priority as the QR TCB. However, the priority value specified on the DB2ENTRY definition is still installed into the relevant control block, in case CICS connects to a lower level of DB2 at a later time.

**EQUAL**

Subtasks have equal priority with the CICS main subtask.

**HIGH**

Subtasks attain a higher priority than the CICS main task from which the subtask was generated.

**LOW**

Subtasks have a lower priority than the CICS main task.

**PROtectnum**

Specifies the maximum number of protected threads allowed for this DB2 entry definition. A thread, when it is released by a transaction and there is no other work queued, can be protected, meaning that it is not terminated immediately. A protected thread is terminated after only two complete purge cycles if it has not been reused in the meantime. Hence, if the purge cycle is set to 30 seconds, a protected thread is terminated 30 - 60 seconds after it is released, assuming it is not reused in the meantime. The first purge cycle after the CICS DB2 attachment facility has been started is 5 minutes, after which the PURGECYCLE value is applied. Threads are only protected while they are inactive. If a transaction reuses a protected thread, the thread becomes active, and the current number of protected threads is decremented.

**THREADLimit**

Specifies the maximum number of threads for this DB2 entry definition that the CICS DB2 attachment allows active before requests are made to wait, are abended, or diverted to the pool.

**THREADWait**

Specifies whether or not transactions should wait for a DB2ENTRY thread, be abended, or overflow to the pool should the number of active DB2ENTRY threads reach the THREADLimit number.

**POOL**

If all threads are busy, the transaction is diverted to use the pool of threads. If the pool is also busy, and NO has been specified for the THREADWAIT attribute on the DB2 connection definition, the transaction is terminated with abend code AD3T.

**NO**

If all threads are busy, a transaction is terminated with an abend code AD2P.

**YES**

If all threads are busy, a transaction waits until one becomes available.



## Chapter 25. DB2 transaction resource definitions

A DB2 transaction definition (DB2TDEF) identifies transactions that use the resources specified in a DB2 entry definition.

### Accessing BAS DB2 transaction definitions

To display information about existing DB2 transaction definitions:

**Issue the command:**

DB2TDEF [*resdef*]

where *resdef* is the specific name of a DB2 transaction definition. If you omit this parameter, the view, illustrated in Figure 43, includes information about all existing DB2 transaction definitions within the current context.

**Select:**

DB2TDEF from the ADMRES menu.

```
27FEB2005 13:09:32 ----- INFORMATION DISPLAY -----
CURR WIN ==> 1      ALT WIN ==>
W1 =DB2TDEF=====EYUPLX01==EYUPLX01==27FEB2005==13:09:32====CPSM=====3
CMD NAME      Ver      Created      Changed      Description
-----
db2tran1      1      7/22/97 13:08  7/22/97 13:08  Test
db2tran2      1      7/22/97 13:08  7/22/97 13:08  Test
db2tran3      1      7/22/97 13:09  7/22/97 13:09  Test
db2tran3      2      7/22/97 13:13  7/22/97 13:13  Test
db2tran5      1      7/22/97 13:16  7/22/97 13:16  Test
```

Figure 43. The DB2TDEF view

### Working with the DB2TDEF view

The topics covered in this section are:

- “Availability” of the DB2TDEF view
- “Action commands” for the DB2TDEF view
- “Hyperlink fields” on page 158 for the DB2TDEF view

#### Availability

DB2 transactions can be defined for all managed CICS systems from CICS TS for OS/390 Release 2 onwards.

#### Action commands

Table 8 summarizes the action commands you can use with the DB2TDEF view.

Table 8. DB2TDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a DB2 transaction definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of DB2 transaction definitions, as described on page 29.

Table 8. DB2TDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a DB2 transaction definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 44. All of the fields are nonmodifiable.
CREate	CRE	Create a DB2 transaction definition and add it to the data repository, as described on page 158.
n/a	INS	For systems running CICS TS for OS/390 Release 2 or later, install a DB2 transaction in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a DB2 transaction definition from the data repository, as described on page 33.
n/a	UPD	Update a DB2 transaction definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 44. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the DB2TDEF view.

## Defining DB2 transactions using BAS

To create a DB2 transaction definition:

1. Issue the create primary (CREate) or line (CRE) action command from the DB2TDEF view.
2. Fill in the fields on the DB2 transaction definition panel (see Figure 44):

```

----- Create DB2 Trn Definition for EYUPLX01 -----
COMMAND ==>
  Name      ==> db2tran5          Version ==>0
  Description ==> Test
  RESGROUP  ==>
  User Data  ==>

  Entry      ==> db2ent02
  Transid    ==>

```

Press ENTER to create DB2TDEF.  
Enter END or CANCEL to cancel without creating.

Figure 44. Creating a DB2 transaction definition

3. To add the DB2 connection definition to the data repository, press Enter.

---

## Installing BAS DB2 transaction definitions

To install a DB2 transaction in an active system, issue the INS command.

After installation of a DB2TDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM DB2TRAN command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE DB2TRAN command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE DB2TRAN command; see *CICS System Programming Reference*.

---

## DB2 transaction definition attributes

The DB2 transaction definition attribute descriptions are:

### Name

The one to eight character name to identify this DB2 transaction definition.

### Version

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to automatically added.

### User data

(Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSplex SM makes no use of this user data.

### Entry

Specifies the name of the DB2 entry definition to which this DB2 transaction definition refers. It is the DB2 entry definition with which this additional transaction should be associated.

### Transid

Specifies the transaction ID to be associated with the entry. If the TRANSID is not specified it defaults to the first four characters of the DB2 transaction definition name. The transaction ID can include wildcard characters.



## Chapter 26. Document template resource definitions

Document template definitions define document templates for use in managed CICS systems.

### Accessing BAS document template definitions

To display information about existing document template definitions:

**Issue the command:**

DOCDEF [*resdef*]

where *resdef* is the specific or generic name of a document template definition. If you omit this parameter, the view, illustrated in Figure 45, includes information about all existing document template definitions within the current context.

**Select:**

DOCDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 ==DOCDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====4====
CMD Name      Ver      Created      Changed      Description
-----
  TEMPLT01    1  7/28/98 10:52  7/28/98 10:52  Test template 1
  EYUPAUT2    1  7/28/98 11:03  7/28/98 11:03  Test template 2
```

Figure 45. The DOCDEF view

### Working with the DOCDEF view

The topics covered in this section are:

- “Availability” of the DOCDEF view
- “Action commands” for the DOCDEF view
- “Hyperlink fields” on page 162 for the DOCDEF view

#### Availability

Document templates can be defined for all managed CICS systems at CICS Transaction Server for OS/390, Version 1 Release 3 and later.

#### Action commands

Table 9 summarizes the action commands you can use with the DOCDEF view.

Table 9. DOCDEF view action commands

Primary command	Line command	Description
ADD <i>resdef</i> version	ADD	Add a document template definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of document template definitions, as described on page 29.

Table 9. DOCDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a document template definition in the data repository.
CREate	CRE	The format of the resulting panel is similar to that shown in Figure 45 on page 161. All of the fields are nonmodifiable. Create a document template definition and add it to the data repository, as described on page 162.
n/a	INS	For systems running CICS Transaction Server for OS/390, Version 1 Release 3 or later, install a document template in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a document template definition from the data repository, as described on page 33.
n/a	UPD	Update a document template definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 45. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the DOCDEF view.

---

## Defining document templates using BAS

To create a document template definition:

1. Issue the create primary (CREate) or line (CRE) action command from the DOCDEF view.
2. Fill in the fields on the document tempate definition panel (see Figure 46 on page 163):

```

COMMAND ===>
Name          ===>          Version    ===> 1
Description   ===>
RESGROUP     ===>
User Data     ===>

FULL TEMPLATE NAME
Templatename  ===>
ASSOCIATED CICS RESOURCE
File          ===>          Name of file
TSqueue       ===>          Name of temporary storage queue
TDqueue       ===>          Name of transient data queue
Program       ===>          Name of program
Exitpgm       ===>          Name of exit program
PARTITIONED DATA SET
DDname        ===>          DD name of partitioned dataset
Membername    ===>          Name of member in partitioned dataset
TEMPLATE PROPERTIES
AppendCRLF    ===>YES       Append CRLF (YES,NO)
Type          ===>EBCDIC    Document Type (BINARY,EBCDIC)

Press ENTER to create DOCDEF.
Enter END or CANCEL to cancel without creating.

```

Figure 46. Creating a document template definition

3. To add the document template definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS document template definitions

To install a document template in an active system, issue the INS command.

After installation of a DOCDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM DOCTEMP command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE DOCTEMPLATE command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE DOCTEMPLATE command; see *CICS System Programming Reference*.

## Document template definition attributes

The document template definitions attribute descriptions are:

### AppendCRLF

specifies whether CICS is to delete trailing blanks from and append carriage-return line-feed to each logical record of the template as it is read from the PDS, FILE, TDQUEUE, or TS QUEUE.

**YES** Carriage return/linefeed pairs should be appended, and trailing blanks should be removed.

**NO** Carriage return/linefeed pairs should not be appended, and trailing blanks should not be removed.

**Type** Specify whether the contents of the template are binary or EBCDIC. If the type is BINARY, no parsing takes place. If the type is EBCDIC, the contents of the template are parsed as EBCDIC text.

**DDname**

when the template resides in an MVS partitioned data set (PDS), specifies the DDname of the PDS. The name can be up to eight characters in length.

If you specify a value for the MEMBERNAME attribute, but do not specify a value for DDNAME, the default value of DFHHTML is taken.

If you specify this attribute, you cannot specify EXITPGM, FILE, PROGRAM, TDQUEUE or TSQUEUE.

**Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

**Name**

specifies the name of this document template definition. The name can be up to eight characters in length. The acceptable characters are: A-Z a-z 0-9 \$ @ # . / - \_ % & ¢ ? ! : | " = ~ , ; < and >.

**Exitpgm**

specifies the name of an exit program that generates a template. The name can be up to eight characters in length.

If you specify this attribute, you cannot specify DDNAME, FILE, MEMBERNAME, PROGRAM, TDQUEUE or TSQUEUE.

**File**

when the template resides in a CICS file, specifies the name of the file. The name can be eight characters in length.

If you specify this attribute, you cannot specify DDNAME, EXITPGM, MEMBERNAME, PROGRAM, TDQUEUE or TSQUEUE.

**Membername**

when the template resides in an MVS partitioned data set (PDS), specifies the name of the member containing the template. The name can be up to eight characters in length.

If you specify this attribute, you cannot specify EXITPGM, FILE, PROGRAM, TDQUEUE or TSQUEUE.

**Program**

when the template resides in a CICS program, specifies the name of the program. The name can be up to eight characters in length.

If you specify this attribute, you cannot specify DDNAME, EXITPGM, FILE, MEMBERNAME, TDQUEUE or TSQUEUE.

**RESGROUP**

(Optional.) The name of the resource definition group to which this definition is to be automatically added.

**TDqueue**

when the template resides in a transient data queue, specifies the name of the queue. The name can be up to four characters in length.

If you specify this attribute, you cannot specify DDNAME, EXITPGM, FILE, MEMBERNAME, PROGRAM, or TSQUEUE.

**Templatename**

specifies the name by which the template is known to application programs that use it. The name can be up to 48 characters in length. If no value is specified, the default is the 1- to 8-character name for the document template definition.



**TSqueue**

when the template resides in a temporary storage queue, specifies the name of the queue. The name can be up to 16 characters in length.

If you specify this attribute, you cannot specify DDNAME, EXITPGM, FILE, MEMBERNAME, PROGRAM, or TDQUEUE.

**Type**

specifies the format of the contents of the template.

**BINARY**

When the template is loaded from the template library, no parsing of the template's contents is done.

**EBCDIC**

When the template is loaded from the template library, the contents are parsed as EBCDIC text.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.



---

## Chapter 27. Enqueue model resource definitions

Enqueue model definitions describe how enqueue models are to run in a CICS system.

---

### Accessing BAS enqueue model definitions

To display information about existing enqueue model definitions:

**Issue the command:**

ENQMDEF [*resdef*]

where *resdef* is the specific or generic name of a enqueue model definition. If you omit this parameter, the view, illustrated in Figure 47, includes information about all existing enqueue model definitions within the current context.

**Select:**

ENQMDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==ENQMDEF=====EYUPLX01=EYUPLX01==27FEB2005==11:30:30=CPSM=====4==
CMD Model Ver Created Changed Description
--- Name ---
AAAAAAA 10 1/17/97 15:21 1/17/97 15:21 SSET - Workload IVP Def
BBBBBBBB 2 1/18/97 09:12 1/18/97 09:12 SSET - Workload IVP Def
CCCCCCCC 1 1/09/97 15:28 1/09/97 15:28 SSET - Definition
DDDDDDDD 1 1/09/97 15:51 1/09/97 15:51 SSET - Definition
```

Figure 47. The ENQMDEF view

---

### Working with the ENQMDEF view

The topics covered by this section are:

- “Availability” of the ENQMDEF view
- “Action commands” for the ENQMDEF view
- “Hyperlink fields” on page 168 for the ENQMDEF view

#### Availability

Enqueue models can be defined for CICS Transaction Server for OS/390 Release 3 and later systems.

#### Action commands

Table 10 on page 168 summarizes the action commands you can use with the ENQMDEF view.

Table 10. ENQMDEF view action commands

Primary command	Line command	Description
ADD	ADD	Add an enqueue model definition to a resource group as described on “Adding resource definitions to a resource group” on page 44.
ALTER	n/a	Apply global changes to a set of enqueue model definitions as described on Figure 9 on page 29.
n/a	BRO	Browse a enqueue model definition in the data repository.
CREate	CRE	The format of the resulting panels is similar to that shown in Figure 48 on page 169. All of the fields are nonmodifiable. Create a enqueue model definition and add it to the data repository, as described on page 168.
n/a	INS	For systems running CICS Transaction Server for z/OS, Version 3 Release 1, install a enqueue model in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a enqueue model definition from the data repository, as described on page 33.
n/a	UPD	Update a enqueue model definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 48. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the ENQMDEF view.

## Defining enqueue models using BAS

To create an enqueue model definition:

1. Issue the create primary (CREate) or line (CRE) action command from the ENQMDEF view.
2. Fill in the fields on the enqueue model definition panel (see Figure 48 on page 169):

```

COMMAND ==>
  Name      ==> ENQMODA1   Version  ==> 1
  Description ==> Test Enqueue Model Description
  RESGROUP  ==>
  User Data  ==>

  Enscope   ==> SCOA
  Status     ==> ENABLED           Enabled | Disabled
  Enqname    ==> ENQNAME01ENQNAME01ENQNAME01ENANAME01ENQNAME01ENQNAME01E
  ==> NQNAME01ENQNAME01ENQNAME01ENQNAME01ENQNAME01
  ==>
  ==>
  ==>

```

Press ENTER to create ENQMDEF.  
Enter END or CANCEL to cancel without creating.

Figure 48. Creating an enqueue model definition

3. To add the enqueue model definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS enqueue model definitions

To install an enqueue model in an active system, issue the INS command.

Enqueue models forming nested generic enqueue names must be installed either in the disabled state or in order, from the most specific (for example, ABCD) to the least specific (for example, AB\*). If another enqueue model with the same or a less specific nested enqueue name is already installed and enabled, the installation fails. You can install disabled enqueue models in any order, but you must enable them in order from most specific to least specific.

For example, if an enqueue model with a generic enqueue name of AB\* is installed and enabled, it must be discarded or disabled before installing and enabling an enqueue model with a generic name of ABCD\*.

After installation of a ENQMDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM ENQMDL command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE ENQMODEL command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE ENQMODEL command; see *CICS System Programming Reference*.

## Enqueue model definition attributes

The enqueue model definition attribute descriptions are:

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

**Name**

specifies the name of this ENQMODEL definition. The name can be up to eight characters in length. The acceptable characters are: A-Z 0-9 \$ @ # . / - \_ % & ¢ ? ! : | " = ~ , ; < and >.

This name is used to identify the ENQMODEL definition on the CSD file. It is not used within the active CICS system.

**Enqname**

specifies the 1 to 255-character resource name. The acceptable characters are: A-Z 0-9 \$ @ # . / - \_ % & ¢ ? ! : | " = ~ , ; < and >. The \* (asterisk) is treated as a wildcard when it appears as the last character of the resource name, such names are treated as generic. You can also use a \* (asterisk) as the last character, to denote a generic name.

**Enqscope**

specifies the optional 4-character enqueue model scope name. If omitted or specified as blanks, matching enqueue models will have a local scope.

**Status**

specifies whether the enqueue model is to be installed in ENABLED or DISABLED status. ENABLED is the default.

**ENABLED**

The enqueue model is enabled if it is disabled. Matching enqueue requests are processed in the normal way.

**DISABLED**

Matching enqueue requests are rejected, and the issuing task is abended. Matching INSTALL CREATE and DISCARD requests are processed.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

## Chapter 28. FEPI node list resource definitions

FEPI node list definitions describe the physical and operational characteristics of FEPI nodes.

### Accessing BAS FEPI node list definitions

To display information about existing FEPI node definitions:

**Issue the command:**

FENODDEF [*resdef*]

where *resdef* is the specific or generic name of a FEPI node definition. If you omit this parameter, the view, illustrated in Figure 49, includes information about all existing FEPI node definitions within the current context.

**Select:**

FENODDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 ==FENODDEF=====EYUPLX01=EYUPLX01===27FEB2005==11:30:30=CPSM=====3==
CMD Name      Ver      Created      Changed      Description
-----
EYUFEN01      1      5/01/99 10:02    5/01/99 10:02    FEPI node 1
EYUFEN02      2      5/01/99 10:14    5/01/99 14:33    FEPI node 2
EYUFEN03      1      5/01/99 10:06    7/01/99 10:06    FEPI node 3
```

Figure 49. The FENODDEF view

### Working with the FENODDEF view

The topics covered in this section are:

- “Availability” of the FENODDEF view
- “Action commands” for the FENODDEF view
- “Hyperlink fields” on page 172 for the FENODDEF view

#### Availability

FEPI nodes can be defined for CICS/ESA 4.1 and later systems.

#### Action commands

Table 11 summarizes the action commands you can use with the FENODDEF view.

Table 11. FENODDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a FEPI node definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of FEPI node definitions, as described on page 29.

## FENODDEF

Table 11. FENODDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a FEPI node definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 50 on page 173. All of the fields are nonmodifiable.
CREate	CRE	Create a FEPI node definition and add it to the data repository, as described on page 172.
n/a	INS	For systems running CICS/ESA 4.1 and later, install a FEPI node in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a FEPI node definition from the data repository, as described on page 33.
n/a	UPD	Update a FEPI node definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 50. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the FENODDEF view.

---

## Defining FEPI node lists using BAS

To create a FEPI node list definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FENODDEF view.
2. Fill in the fields on the FEPI node list definition panel (see Figure 50 on page 173; :



**Note:** When you use FENODDEF, the FEPI node list definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal; the fields are shown in one list for convenience.

3. To add the FEPI node list definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

After installation of a FENODDEF resource definition, you can enquire about the resultant object using:

- Chapter 28. FEPI node list resource definitions
- 173**

- There is no EXEC CICS INQUIRE command for FEPI node list definitions.

---

## FEPI node list definition attributes

Provide the following information, as appropriate:

**Name** Specify a 1- to 8-character name for the FEPI node definition.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**Description**

(Optional.) Specify a 1- to 30-character description of the file.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the file. CICSplex SM makes no use of this user data.

**Acquire Status**

Specify the initial acquire state of the nodes being installed. All nodes listed have the same initial state. The options are:

**ACQUIRED**

The VTAM® ACB for the node is to be opened and 'set logon start' is to be done.

**RELEASED**

The VTAM ACB for the node is not be opened.

**Service Status**

Specify the initial service state of the nodes being installed. All nodes listed will have the same initial state. The options are:

**INSERVICE**

The nodes are in service and can be used in a conversation.

**OUTSERVICE**

The nodes are not in service and cannot be used for any conversations.

**Node** Specify further 8-character node names to be installed. You can specify a maximum of 64 node names.

**Password**

Specify 8-character passwords. The passwords must correspond with a name in the node list. You can specify up to 64 passwords.

## Chapter 29. FEPI pool resource definitions

FEPI pool definitions describe the physical and operational characteristics of FEPI pools.

### Accessing BAS FEPI pool definitions

To display information about existing FEPI pool definitions:

**Issue the command:**

FEPOODEF [*resdef*]

where *resdef* is the specific or generic name of a FEPI pool definition. If you omit this parameter, the view, illustrated in Figure 51, includes information about all existing FEPI pool definitions within the current context.

**Select:**

FEPOODEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==FEPOODEF=====EYUPLX01=EYUPLX01===27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EYUFEP01 1 5/01/99 10:02 5/01/99 10:02 FEPI Pool 1
EYUFEP02 2 5/01/99 10:14 5/01/99 14:33 FEPI Pool 2
EYUFEP03 1 5/01/99 10:06 7/01/99 10:06 FEPI Pool 3
```

Figure 51. The FEPOODEF view

### Working with the FEPOODEF view

The topics covered by this section are:

- “Availability” of the FEPOODEF view
- “Action commands” for the FEPOODEF view
- “Hyperlink fields” on page 176 for the FEPOODEF view

#### Availability

FEPI pools can be defined for CICS/ESA 4.1 and later systems.

#### Action commands

Table 12 summarizes the action commands you can use with the FEPOODEF view.

Table 12. FEPOODEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a FEPI pool definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of FEPI pool definitions, as described on page 29.

Table 12. FEPOODEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a FEPI pool definition in the data repository.
CREate	CRE	The format of the resulting panel is similar to that shown in Figure 52 on page 177. All of the fields are nonmodifiable. Create a FEPI pool definition and add it to the data repository, as described on page 176.
n/a	INS	For systems running CICS/ESA 4.1 and later, install a FEPI pool in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a FEPI pool definition from the data repository, as described on page 33.
n/a	UPD	Update a FEPI pool definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 52. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the FEPOODEF view.

## Defining FEPI pools using BAS

To create a FEPI pool definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FEPOODEF view.
2. Fill in the fields on the FEPI pool definition panel (see Figure 52 on page 177):

**Note:** When you use FEPOODEF, the FEPI pool definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal. Figure 52 shows the FEPI pool definition fields in one list for convenience.

- ## Installing BAS FEPI pool definitions

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After installation of a FEPOODEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM FEPOOL command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE FEPOOL command; see *CICS Front End Programming Interface User's Guide*.
- There is no EXEC CICS INQUIRE command for FEPI pool definitions.

---

## FEPI pool definition attributes

Provide the following information, as appropriate:

**Name** Specify a 1- to 8-character name for the FEPI pool definition.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**Description**

(Optional.) Specify a 1- to 30-character description of the file.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the file. CICSplex SM makes no use of this user data.

**PropertySet**

Specify the 1- to 8-character name of the set of properties for the FEPI pool.

**Acquire Status**

Specify the initial acquire state of the connections being created. All new connections will have the same initial state. The options are:

**ACQUIRED**

The connections are to have sessions established.

**RELEASED**

The connections are not to have sessions established.

**Service Status**

Specify the initial service state of the pool being installed and the connections being created. All new connections will have the same initial state. The options are:

**INSERVICE**

The pool and any connections are in service and can be used in a conversation.

**OUTSERVICE**

The pool and any connections are not in service and cannot be used for any conversations.

**NodeList**

Specify 8-character node names to be used to create new connections in the pool. You can specify a maximum of 128 node names.

**TargetList**

Specify 8-character target names used to create new targets in the pool.  
You can specify up to a maximum of 32 target names.





## Chapter 30. FEPI property set resource definitions

FEPI property set definitions describe the physical and operational characteristics of FEPI property sets.

### Accessing BAS FEPI property set definitions

To display information about existing FEPI property set definitions:

**Issue the command:**

FEPRODEF [*resdef*]

where *resdef* is the specific or generic name of a FEPI property set definition. If you omit this parameter, the view, illustrated in Figure 53, includes information about all existing FEPI property set definitions within the current context.

**Select:**

FEPRODEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 ==FEPRODEF=====EYUPLX01=EYUPLX01===27FEB2005==11:30:30=CPSM=====3==
CMD Name      Ver      Created      Changed      Description
-----
EYUFES01      1      5/01/99 10:02    5/01/99 10:02    FEPI property set 1
EYUFES02      2      5/01/99 10:14    5/01/99 14:33    FEPI property set 2
EYUFES03      1      5/01/99 10:06    7/01/99 10:06    FEPI property set 3
```

Figure 53. The FEPRODEF view

### Working with the FEPRODEF view

The topics covered in this section are:

- “Availability” of the FEPRODEF view
- “Action commands” for the FEPRODEF view
- “Hyperlink fields” on page 182 for the FEPRODEF view

#### Availability

FEPI property sets can be defined for CICS/ESA 4.1 and later systems.

#### Action commands

Table 13 summarizes the action commands you can use with the FEPRODEF view.

Table 13. FEPRODEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a FEPI property set definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of FEPI property set definitions, as described on page 29.

Table 13. FEPRODEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a FEPI property set definition in the data repository.
CREate	CRE	The format of the resulting panels is similar to that shown in Figure 54 on page 183. All of the fields are nonmodifiable. Create a FEPI property set definition and add it to the data repository, as described on page 192.
n/a	INS	For systems running CICS/ESA 4.1 and later, install a FEPI property set in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a FEPI property set definition from the data repository, as described on page 33.
n/a	UPD	Update a FEPI property set definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 54. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the FEPRODEF view.

---

## Defining FEPI property sets using BAS

To create a FEPI property set definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FEPRODEF view.
2. Fill in the fields on the FEPI property set definition panel (see Figure 54 on page 183):

```

COMMAND ==>
Name      ==> EYUFES01      Version ==> 0
Description ==> FEPI property set 1
RESGROUP  ==>
User Data  ==>

Begin Session      ==> ABCD      Begin Session Transaction
Contention         ==> LOSE      WIN | LOSE
Device            ==> T3278M2    Mode and Type
End Session        ==> WXYZ      End Session Transaction
Exception Q        ==> TDQ1      TD Queue for exceptions
FJournalNum        ==> 1         Journal Number
FJournalName       ==>           Journal name
Format            ==> FORMATTED  Data Format
Initial Data       ==> NOTINBOUND Expect inbound Data
MaxFlength         ==> 4096      Max length of returned data
MsgJrnl           ==> NOMSGJRNL  Journaling Status
STSN              ==>           STSN transaction
Unsolicited Data   ==>           Unsolicited data transaction
Unsolicited Ack    ==> NEGATIVE  Unsolicited data acknowledge
Press ENTER to update FEPRODEF.
Enter END or CANCEL to cancel without creating.

```

Figure 54. Creating a FEPI property set definition

- To add the FEPI property set definition to the data repository, press Enter. If you want to specify more nodes and target names, issue the DOWN command.

## Installing BAS FEPI property set definitions

To install a FEPI property set in an active system, issue the INS command.

After installation of a FEPRODEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM FEPROP command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE FEPROPSET command; see *CICS Front End Programming Interface User's Guide*.
- There is no EXEC CICS INQUIRE command for FEPI property set definitions.

## FEPI property set definition attributes

Provide the following information, as appropriate:

**Name** Specify a 1- to 8-character name for the FEPI property set definition.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**Description**

(Optional.) Specify a 1- to 30-character description of the FEPI property set.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the FEPI property set. CICSplex SM makes no use of this user data.

**Begin Session**

(Optional.) Specify the name of the transaction that will perform begin-session processing, immediately after a session has been established. If this option is omitted, there is no user-supplied begin-session processing.

**Contention**

Specify what is to happen when an EXEC CICS FEPI SEND command is issued and there is inbound data with begin-bracket. The options are:

**LOSE** The EXEC CICS FEPI SEND command fails; an EXEC CICS FEPI RECEIVE command must be issued to get the inbound data.

**WIN** The EXEC CICS FEPI SEND commands succeeds; inbound data is rejected with a negative response.

**Device**

Specify the LU mode and the device type that is to be simulated. The options are:

**T3278M2**

T3278M3

T3278M4

T3278M5

T3279M2

T3279M3

T3279M4

T3279M5

TPS55M2

TPS55M3

TPS55M4

LUP

**End Session**

(Optional.) Specify the name of the transaction that will perform end-session processing, either when a conversation is ended or when a session is to be ended. If this option is omitted, there is not user-supplied end-session processing.

**Exception Q**

Specify the name of the transient data queue to which pool-specific exceptional events are to be notified. If this option is omitted, there is no used-supplied exceptional event queue processing.

**FJournalNum**

(Optional.) Specify the number of the journal where data is to be logged, in the range 1 (the default) through 99. If the value is 0 (zero) or omitted, no journaling is done.

**FJournalName**

(Optional.) Specify the name of the journal where data is to be logged. If the value is omitted, no journaling is done.

**Format**

Specify, for SLU2 mode, the data mode to be used. The options are:

**FORMATTED**

Formatted operations. Character attributes are not supported on outbound data and ignored on inbound data.

**DATASTREAM**

Data stream operation.

**Initial Data**

Specify whether initial inbound data is expected when a session is started. The options are:

**NOTINBOUND**

No inbound data is expected.

**INBOUND**

Inbound data is expected.

**MAXFlength**

Specify the maximum length of data that can be returned on any FEPI RECEIVE, CONVERSE, or EXTRACT FIELD command for a conversation, or that can be sent by any FEPI SEND or CONVERSE command for a conversation. This value helps FEPI use storage in a more efficient manner, so should be set no larger than necessary. It must be in the range 128 through 1048576. If this value is omitted, the default value 4096 is used.

**MsgJrnl**

Specify the required journaling of data to and from the back-end system. The options are:

**NOMSGJRNL**

No journaling.

**INPUT** Journal inbound data.

**OUTPUT**

Journal outbound data.

**INOUT**

Journal inbound and outbound data.

**STSN** (Optional.) Specify the name of the transaction to be started to handle 'set and test sequence number', for SLU P mode only. If this value is omitted, there is no user-supplied STSN handling; FEPI handles STSN automatically.

**UnSolicited Data**

(Optional.) Specify the name of the transaction that will handle unsolicited data. If no transaction name is specified, there is no user-supplied processing of unsolicited data. FEPI treats unsolicited data as specified in the UnSolicited Ack field. The UnSolicited Data and UnSolicited Ack fields are mutually exclusive.

**UnSolicited Ack**

(Optional.) Specify the acknowledgement FEPI is to give if there is to be no unsolicited data processing. The options are:

**NEGATIVE**

Negative response X'0813'; BID is not accepted.

**POSITIVE**

Positive response, BID is accepted and subsequent data is accepted and discarded.

If this option is omitted, unsolicited data is handled by the transaction specified in the UnSolicited Data field. The UnSolicited Data and UnSolicited Data Ack fields are mutually exclusive.

If the FEPI property set definition is complete, press Enter. If you want to specify more nodes and target names, issue the DOWN command.



## Chapter 31. FEPI target list resource definitions

FEPI target list definitions describe the physical and operational characteristics of FEPI targets.

### Accessing BAS FEPI target list definitions

To display information about existing FEPI target definitions:

**Issue the command:**

FETRGDEF [*resdef*]

where *resdef* is the specific or generic name of a FEPI target definition. If you omit this parameter, the view, illustrated in Figure 55, includes information about all existing FEPI target definitions within the current context.

**Select:**

FETRGDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 ==FETRGDEF=====EYUPLX01=EYUPLX01===27FEB2005==11:30:30=CPSM=====3==
CMD Name      Ver      Created          Changed          Description
-----
EYUFET01      1    5/01/99 10:02    5/01/99 10:02    FEPI Target 1
EYUFET02      2    5/01/99 10:14    5/01/99 14:33    FEPI Target 2
EYUFET03      1    5/01/99 10:06    7/01/99 10:06    FEPI Target 3
```

Figure 55. The FETRGDEF view

### Working with the FETRGDEF view

The topics covered by this section are:

- “Availability” of the FETRGDEF view
- “Action commands” for the FETRGDEF view
- “Hyperlink fields” on page 188 for the FETRGDEF view

#### Availability

FEPI targets can be defined for CICS/ESA 4.1 and later systems.

#### Action commands

Table 14 summarizes the action commands you can use with the FETRGDEF view.

Table 14. FETRGDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a FEPI target definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of FEPI target definitions, as described on page 29.

Table 14. FETRGDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a FEPI target definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 56 on page 189. All of the fields are nonmodifiable.
CREate	CRE	Create a FEPI target definition and add it to the data repository, as described on page 188.
n/a	INS	For systems running CICS/ESA 4.1 and later, install a FEPI target in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a FEPI target definition from the data repository, as described on page 33.
n/a	UPD	Update a FEPI target definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 56. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the FETRGDEF view.

## Defining FEPI target lists using BAS

To create a FEPI target list definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FETRGDEF view.
2. Fill in the fields on the FEPI target list definition panel (see Figure 56 on page 189):



```

COMMAND ==>
Name      ==> EYUFEN01      Version ==> 0
Description ==> FEPI target 1
RESGROUP  ==>
User Data  ==>

Service Status ==> INSERVICE      INSERVICE | OUTSERVICE

                                TargetList
==> EYUTGT01      ==> EYUTGT02      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>

                                VTAM Applids
==> VTAMAPP1      ==> VTAMAPP2      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>
==>      ==>      ==>      ==>

Press ENTER to update FETRGTDEF.
Enter END or CANCEL to cancel without creating.

```

Figure 56. Creating a FEPI target definition

**Note:** The FEPI target list definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal. Figure 56 shows the FEPI node list definition fields in one list for convenience.

- To add the FEPI property set definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS FEPI target list definitions

To install a FEPI target in an active system, issue the INS command.

After installation of a FETRGTDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM FETRGT command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE FETARGET command; see *CICS Front End Programming Interface User's Guide*.
- There is no EXEC CICS INQUIRE command for FEPI target list definitions.

---

## FEPI target definition attributes

Provide the following information, as appropriate:

**Name**

Specify a 1- to 8-character name for the FEPI target definition.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**Description**

(Optional.) Specify a 1- to 30-character description of the file.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the file. CICSplex SM makes no use of this user data.

**Service Status**

Specify the initial service state of the pool being installed and the connections being created. All new connections will have the same initial state. The options are:

**INSERVICE**

The pool and any connections are in service and can be used in a conversation.

**OUTSERVICE**

The pool and any connections are not in service and cannot be used for any conversations.

**TargetList**

Specify 8-character target names to be installed. A target name is the logical FEPI front-end name of a back-end system. You can specify up to maximum of 64 target names.

**VTAM Applids**

Specify 8-character VTAM application names of the back-end CICS or IMS systems with which FEPI applications are to communicate; they must correspond one-to-one with the names in the target list. You can specify up to 64 VTAM applications.

## Chapter 32. File resource definitions

File definitions describe the physical and operational characteristics of files.

### Accessing BAS file definitions

To display information about existing file definitions:

**Issue the command:**

FILEDEF [*resdef*]

where *resdef* is the specific or generic name of a file definition. If you omit this parameter, the view, illustrated in Figure 57, includes information about all existing file definitions within the current context.

**Select:**

FILEDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==FILEDEF=====EYUPLX01=EYUPLX01===27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EYUFIL08 1 1/09/97 10:02 1/09/97 10:02 Payroll Updates - Local
EYUFIL08 2 1/09/97 10:14 1/10/97 14:33 Payroll Updates - Temp
EYUFIL09 1 1/09/97 10:06 1/09/97 10:06 Employee Database
```

Figure 57. The FILEDEF view

### Working with the FILEDEF view

The topics covered by this section are:

- “Availability” of the FILEDEF view
- “Action commands” for the FILEDEF view
- “Hyperlink fields” on page 192 for the FILEDEF view

#### Availability

Files can be defined for all managed CICS systems.

#### Action commands

Table 15 summarizes the action commands you can use with the FILEDEF view.

Table 15. FILEDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a file definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of file definitions, as described on page 29.

## FILEDEF

Table 15. FILEDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a file definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 58 on page 193 through Figure 60 on page 194. All of the fields are nonmodifiable.
CREate	CRE	Create a file definition and add it to the data repository, as described on page 192.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a file in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a file definition from the data repository, as described on page 33.
n/a	UPD	Update a file definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 58 through Figure 60 on page 194. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the FILEDEF view.

---

## Defining files using BAS

To create a file definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FILEDEF view.
2. Fill in the fields on the first file definition panel (see Figure 58 on page 193):

```

COMMAND ==>
Name          ==> EYUFIL08      Version ==> 0
Description    ==> Payroll Updates - Local
RESGROUP      ==>
User Data     ==>

VSAM PARAMETERS
Dsnname              Data set name
                    ==> PAYROLL.EUTL3
                    ==>

Password            ==>          User access password
Rlsaccess           ==> NO        CICS opens files in RLS mode (YES,NO)
Lsrpoolid           ==> 1         Local shared resource pool (1-8, NONE, blank)
Readintegrity       ==> UNCOMMITTED Read level (UNCOMMITTED,CONSISTENT,REPEATABLE)
Dsnsharing          ==> ALLREQS   Dataset sharing (ALLREQS,MODIFYREQS)
Strings             ==> 30        Concurrent file requests (1 - 255, blank)
Nsrgroup            ==>          Group name for VSAM data set

Press ENTER to update FILEDEF.
Press UP or DOWN to view other screens
Enter END or CANCEL to cancel without creating.

```

Figure 58. Creating a file definition - Page 1

3. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
4. Fill in the fields on the second file definition panel (see Figure 59):

```

COMMAND ==>
Name          EYUFIL08      Version ==> 0

REMOTE ATTRIBUTES
Remotename     ==>          Remote file name
Remotesystem   ==>          Connection name to remote system
REMOTE AND CFDATATABLE PARAMETERS
Recordsize     ==>          Record size (1 - 32767, blank)
Keylength      ==>          Key length (1 - 255, blank)
                                   (1 - 16 for CF Tables)

INITIAL STATUS
Status         ==> ENABLED     Status (ENABLED,DISABLED,UNENABLED)
Opentime       ==> FIRSTREF    Open time (FIRSTREF, STARTUP)
Disposition    ==> SHARE      File disposition (SHARE, OLD)
NSR BUFFERS
Databuffers    ==> 31          Number of data buffers (2-32767, blank)
Indexbuffers   ==> 30          Number of index buffers (1-32767, blank)

Press ENTER to update FILEDEF.
Enter UP or DOWN to view other screens
Enter END or CANCEL to cancel without updating.

```

Figure 59. Creating a file definition - Page 2

5. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
6. Fill in the fields in the third file definition panel (see Figure 60 on page 194):

```

COMMAND ==>
Name                               EYUFIL08   Version ==> 0

DATATABLE PARAMETERS
Table      ==> NO           Data table type (NO, CICS, USER, CF)
Maxnumrecs ==> NOLIMIT      Max entries in data table ...
                                   (NOLIMIT or 1-99,999,999)

CFDATATABLE PARAMETERS
Cfdtpool   ==>             Name of coupling facility data table pool
Tablename  ==>             Data table name
Updatemodel ==> LOCKING     Update model (LOCKING or CONTENTION)
Loadtype   ==> NO          Whether file loads table (YES or NO)
RECORD FORMAT
Recordformat ==> VARIABLE   Record format (VARIABLE, FIXED)

Press ENTER to update FILEDEF.
Enter UP or DOWN to view other screens
Enter END or CANCEL to cancel without updating.

```

Figure 60. Creating a file definition - Page 3

7. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
8. Fill in the fields on the fourth file definition panel (see Figure 61):

```

COMMAND ==>
Name                               EYUFIL08   Version0

OPERATIONS
Add      ==> YES           Records can be added to file (YES,NO)
Browse   ==> YES           Records retrieved sequentially (YES,NO)
Delete   ==> YES           Records can be deleted (YES,NO)
Read     ==> YES           Records can be read (YES, NO)
Update   ==> YES           Records can be updated (YES,NO)
AUTO JOURNALLING
Journal  ==>             Journal number (NO, 1-99, blank)
Jnlread  ==> NONE         Read ops in jrn1 (NONE,ALL,READONLY,UPDATEONLY)
Jnlsyncread ==> NO        Auto journaling for read (YES,NO)
Jnlupdate ==> NO          Rewrite/Delete oprs record on jrn1 (YES,NO)
Jnladd    ==> NONE         Add ops recorded on jrn1 (NONE,AFTER,ALL,BEFORE)
Jnlsyncwrite ==> YES       Auto journaling for write (YES,NO)

Press ENTER to update FILEDEF.
Enter UP or DOWN to view other screens
Enter END or CANCEL to cancel without updating.

```

Figure 61. Creating a file definition - Page 4

9. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
10. Fill in the fields on the fifth file definition panel (see Figure 62 on page 195):

```

COMMAND ==>
Name                EYUFIL08      Version ==> 0

RECOVERY PARAMETERS
Recovery            ==> NONE        Type of recovery (NONE,ALL,BACKOUTONLY)
Fwdrecovlog         ==>            Journal Name used for recovery (NO, 1-99,
                                   blank)
Backuptype          ==> STATIC      CICS VSAM file backup type (STATIC,DYNAMIC)
SECURITY
Ressecnum           ==>            Resource security value (0-24,PUBLIC,blank)

Press ENTER to update FILEDEF.
Enter UP or DOWN to view other screens
Enter END or CANCEL to cancel without updating.

```

Figure 62. Creating a file definition - Page 5

11. To continue creating a file definition:
  - For all systems other than CICS for OS/2 systems, go to step 13.
  - For CICS for OS/2 systems only, issue the DOWN command.
12. Fill in the fields on the sixth file definition panel (see Figure 63):

```

COMMAND ==>
Name                EYUFIL08      Version

File Open           ==> Y          Open file at startup (Y, N, blank)
File Enabled        ==> Y          Enable file (Y, N, blank)
File Type           ==> K          Type of file (E, K, R, A, blank)
File Access         ==> R          Access method (R, U, O, blank)
Base File Name      ==>            Alternate index base file
Key Number          ==>            Access key for base file (1-99, blank)
Min Record Len     ==>            Minimum record length (1-4090, blank)
Max Record Len     ==>            Maximum record length (1-32767, blank)
CI Size            ==>            Control interval size (512-4096, blank)
Ext File Mgr        ==> N          Use external file manager (Y, N, blank)

FSEG Def Name       ==>            File key segment definition
FSEG Def Ver        ==>            File key segment def version (1-15, blank)

Press ENTER to update FILEDEF.
Enter UP or DOWN to view other screens
Enter END or CANCEL to cancel without updating.

```

Figure 63. Creating a file definition - Page 6

13. To add the file definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS file definitions

To install a file in an active system, issue the INS command.

After installation of a FILEDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM FILE command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE FILE command; see *CICS Supplied Transactions*.

- The EXEC CICS INQUIRE FILE command; see *CICS System Programming Reference*.

---

### File definition attributes

The file definition attribute descriptions are:

#### **Add**

specifies whether records can be added to the file.

#### **Backuptype**

CICS VSAM files can be defined as eligible for backup while open for update.

Possible values are:

##### **DYNAMIC**

Specify this along with the RECOVERY attribute of ALL to make the file eligible for backup while open for update.

##### **STATIC**

The file is not eligible for backup while open for update.

#### **Browse**

specifies whether records can be retrieved sequentially from the file.

#### **Cfdtpool**

specifies the name of the coupling facility data table pool containing the table defined by this file definition. This attribute is required if you specify TABLE(CF).

#### **Databuffers**

specifies the number of buffers to be used for data. Use a value in the range 2 (the default) through 32767. The minimum value you may specify is one more than the number of strings defined in the STRINGS attribute. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

#### **Delete**

specifies whether records can be deleted from the file.

#### **Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

#### **Disposition**

specifies the disposition of this file.

**OLD** Equivalent to the DISP=OLD parameter in JCL.

##### **SHARE**

Equivalent to the DISP=SHR parameter in JCL.

#### **Dsname**

specifies the data set name (as known to the operating system) to be used for this file. DSNAMES can be 1 through 44 characters, conforming to the rules for MVS data set names. The characters allowed are A-Z 0-9 @ # \$ and -. Lowercase characters are treated as uppercase characters.

#### **Dsnsharing**

specifies whether VSAM data set name sharing is used for the VSAM file. The possible values are:

##### **ALLREQS**

Data set name sharing is set in the ACB when the file is opened and is therefore used for all file requests.



**MODIFYREQS**

Data set name sharing is set in the ACB when the file is opened only if an operation of DELETE, ADD, or UPDATE is set for the file.

**Name**

specifies the name of the file. The name can be up to eight characters in length.

**Fwdrecovery**

For files with a Recovery value of ALL, specify which journal you want the after images for forward recovery written to:

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**RESGROUP**

specifies the group name, which can be up to eight characters in length. The characters allowed are A-Z 0-9 @ # and \$.

**Indexbuffers**

specifies the number of buffers to be used for the index. Use a value in the range 1 through 32767. The minimum value you may specify is the number of strings defined in the STRINGS attribute. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Jnladd**

specifies the add operations you want recorded on the journal nominated by the JOURNAL attribute. Possible values are:

**AFTER**

Journal the file control write operation after the VSAM I/O operation.

**ALL**

Journal the file control write operation both before and after the VSAM I/O operation has completed.

**BEFORE**

Journal the file control write operation before the VSAM I/O operation.

**NONE** Do not journal add operations.

**Jnlread**

specifies the read operations you want recorded on the journal nominated by the JOURNAL attribute. Possible values are:

**ALL** Journal all read operations.

**NONE** Do not journal read operations.

**READONLY**

Journal only READ ONLY operations (not READ UPDATE operations).

**UPDATEONLY**

Journal only READ UPDATE operations (not READ ONLY operations).

**Jnlsyncread**

specifies whether you want the automatic journaling records, written for READ operations to the journal specified by JOURNAL, to be written synchronously or asynchronously.

**Jnlsyncwrite**

specifies whether you want the automatic journaling records, written for WRITE operations to the journal specified by JOURNAL, to be written synchronously or asynchronously.

## **Jnlupdate**

specifies whether you want REWRITE and DELETE operations recorded on the journal nominated by the JOURNAL attribute.

## **Journal**

specifies whether you want automatic journaling for this file. The journaled data is in the format of the VSAM record and is used for user controlled journaling. Possible values are:

**NO** No automatic journaling is to take place for this file.

## **number**

The number that identifies the journal that CICS is to use for the autojournal. CICS journal names are of the form DFHJnn, where nn is in the range 1 through 99.

**Note:** In CICS Transaction Server for OS/390, Version 1 Release 1, and subsequent releases, DFHJ01 is **not** the system log.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

## **Keylength**

specifies the length in bytes of the logical key of records in remote files, in the range 1 through 255.

There is no default value for this attribute. If KEYLENGTH is not defined here, the length option must be specified on file control API commands in the application programs that refer to this file.

## **Load**

specifies whether the coupling facility data table is to be loaded from a source data set when first opened.

**NO** Means the coupling facility data table does not require loading from a source data set; it is fully usable by application programs as soon as it is open. The table is loaded by the application programs that use it, which is the default method for a coupling facility data table.

**YES** Means the coupling facility data table has to be loaded from a source data set before it is fully usable; the application programs that use this coupling facility data table rely on it containing the records from a source data set. Loading does not have to be completed before data can be accessed.

Ensure that the value for this attribute is the same throughout the sysplex in all file definitions that reference the same coupling facility data table.

## **Lsrpoolid**

specifies the identity of the local shared resource pool. The default value for LSRPOOLID is 1, unless a value has been specified for the NSRGROUP attribute, in which case the default value for LSRPOOLID is NONE.

**NONE** Specifies that the data set associated with this file uses VSAM nonshared resources (NSR).

## **1|2|3|4|5|6|7|8**

The value, in the range 1 through 8, identifies the number of the VSAM shared resource pool that is used by the VSAM data set associated with this file. The data set is defined as using VSAM local shared

resources (LSR). You are recommended to define the buffers, strings, and other resources explicitly in an LSRPOOL resource definition that corresponds to this LSRPOOLID.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

#### **Maxnumrecs**

For CICS and USER tables, specify the maximum number of entries in the data table, in the range 16 through 16777215. If you leave this field blank, there is no default value.

#### **Nsrgroup**

For files referencing data sets that use VSAM non-shared resources (NSR), specify a 1- to 8-character symbolic name to group together file definitions that refer to the same VSAM base data set.

#### **Opentime**

specifies when the file is opened. Possible values are:

##### **FIRSTREF**

The file remains closed until a request is made to open it by:

- A master terminal command
- An EXEC CICS SET FILE OPEN command in an application program
- An implicit open

##### **STARTUP**

The file is opened immediately after CICS initialization by an automatically initiated CICS transaction (CSFU), unless the status of the file is UNENABLED when the file is left closed.

#### **Password**

specifies the 1-to 8-character password that is used to verify user access to the file.

The password does not appear while you are typing it and it is not displayed on the update or browse panel. If you specify a password, the Password field appears highlighted on the update and browse panels to indicate a password exists; the field itself contains blanks. You can use the update panel to change an existing password or add a new password.

#### **Read**

specifies whether records on this file can be read.

#### **Readintegrity**

specifies the level of read integrity required for files defined with RLSACCESS(YES).

##### **CONSISTENT**

The record is read with consistent read integrity.

CONSISTENT is valid only if you also specify RLSACCESS(YES)—the resource definition is rejected with an error if you specify CONSISTENT for a non-RLS file.

##### **REPEATABLE**

The record is read with repeatable read integrity.

##### **UNCOMMITTED**

The record is read without read integrity.

### Notes:

1. UNCOMMITTED is the same level of integrity that is provided by those releases of CICS that do not support the READINTEG attribute.

### Recordformat

specifies the format of the records on the file.

**F** The records are fixed length.

**V** The records are variable length.

### Recordsize

specifies the maximum length in bytes of records in a remote file . The size specified can be in the range 1 through 32767.

### Recovery

specifies the type of recovery required for the file.

**ALL** Before images are recorded in the system log, and after images in the journal specified in the Fwdrecovlog attribute.

### **BACKOUTONLY**

Before images are recorded in the system log.

**NONE** There is no recovery logging for this file.

### Remotename

(Optional.) specifies, if the file resides on a remote system, the name by which this file is known in the system or region in which it is resident. The name can be up to eight characters in length.

### RemoteSystem

(Optional.) specifies, if the file resides on a remote system, the name of the connection that links the target (local) system to the related (remote) system where the file resides. If this attribute is not supplied, RemoteSystem is derived directly from the CICS system id of the related system, and the connection that links the target system to the related system must have the same name as the CICS system id of the related system.

### Ressecnum

For CICS/ESA 3.3 system, specifies the resource security value to be associated with the file:

**0** Transactions with RSL checking specified are not allowed to access the file.

**value** A resource security value, in the range 1 through 24.

### **PUBLIC**

Any transaction is allowed to access the file.

### Rlsaccess

specifies whether CICS is to open the file in RLS mode.

**NO** The file is not to be opened in RLS mode.

**YES** The file is to be opened in RLS mode.

### Status

specifies the initial status of the file following a CICS initialization with START=COLD or START=INITIAL.

**DISABLED**

Any request against this file from a command-level application program causes the DISABLED condition to be passed to the program.

**ENABLED**

Normal processing is allowed against this file.

**UNENABLED**

This prevents the file being opened by an implicit open from an application program.

**Strings**

specifies the number, in the range 1 through 255, of concurrent requests that can be processed against the file.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Table**

specifies the type of data table that you require.

**CICS** A CICS-maintained data table. This automatically reflects all modifications made to the table in its source data set. If you specify CICS, also specify:

- LSRPOOLID with a value of 1 through 8
- MAXNUMRECS with the value you require.

**NO** Data table not required.

**USER** A user-maintained table. This remains independent of its source data set, and changes to the user-maintained table are not reflected in corresponding source data set. If you specify USER, also specify:

- LSRPOOLID with a value of 1 through 8
- RECORDFORMAT as VARIABLE (or let this default to VARIABLE)
- MAXNUMRECS with the value you require.

**Tablename**

specifies the name of the coupling facility data table that is accessed through this file definition.

If you omit this attribute when TABLE(CF) is specified, it defaults to the name specified for the FILE.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSplex SM makes no use of this user data.

**Update**

specifies whether records on this file can be updated.

specifies the type of update model to be used for a coupling facility data table.

**LOCKING**

specifies that the CFDT is updated using the locking model.

**CONTENTION**

specifies that the CFDT is updated using the contention model.

The value for this attribute must be the same throughout the sysplex in all file definitions that reference the same coupling facility data table.

## FILEDEF

### User data

(Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSPlex SM makes no use of this user data.

### Version

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

---

## Chapter 33. File key segment resource definitions

File key segment definitions describe the parts of a Windows file record that are to be used as the record key. Key segments are valid only for:

- Entry-sequenced files (type E)
- Key-sequenced files (type K)

Key segments are not valid for:

- Alternate index files (type A)
- Relative-record files (type R)
- Remote files

---

### Accessing BAS file segment definitions

To display information about existing file key segment definitions,

**Issue the command:**

FSEGDEF [*resdef*]

where *resdef* is the specific or generic name of a file key segment definition. If you omit this parameter, the view, illustrated in Figure 64, includes information about all existing file key segment definitions within the current context.

**Select:**

FSEGDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 ==FSEGDEF=====EYUPLX01=EYUPLX01===27FEB2005==11:30:30=CPSM=====3==
CMD Name      Ver      Created      Changed      Description
-----
EYUFG01       1  1/09/97 10:02  1/09/97 10:02  Key Segs for EYUFIL12
EYUFG01       2  1/09/97 10:14  1/10/97 14:33  Key Segs for EYUFIL12
EYUFG02       1  1/09/97 10:06  1/09/97 10:06  Test Key Segs
```

Figure 64. The FSEGDEF view

---

### Working with the FSEGDEF view

Topics covered by this section are:

- “Availability” of the FSEGDEF view
- “Action commands” for the FSEGDEF view
- “Hyperlink fields” on page 204 for the FSEGDEF view

#### Availability

File key segments can be defined for systems running CICS for Windows.

#### Action commands

Table 16 on page 204 summarizes the action commands you can use with the FSEGDEF view.

Table 16. FSEGDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a file key segment definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of file key segment definitions, as described on page 29.
n/a	BRO	Browse a file key segment definition in the data repository.
CREate	CRE	The format of the resulting panels is similar to that shown in Figure 65 on page 205. All of the fields are nonmodifiable. Create a file key segment definition and add it to the data repository, as described on page 204.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a file key segment definition from the data repository, as described on page 33.
n/a	UPD	Update a file key segment definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 65 on page 205. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the FSEGDEF view.

---

## Defining file key segments using BAS

To create a file segment definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FSEGDEF view.
2. Fill in the fields on the first file segment definition panel (see Figure 65 on page 205):



```

COMMAND ==>
  Name      ==> EYUFG01   Version ==> 0
  Description ==> Key Segs for EYUFIL12
  RESGROUP  ==>
  User Data  ==>

Key Segments:
      Pos   Len   Dup   Mod   Bin   Nc   Sg   Alt   Nu1
01 ==> 000   002   Y     N     Y     N     Y     N     000
02 ==> 002   004   Y     N     N     N     Y     N     000
03 ==> 006   002   Y     N     Y     N     N     N     000
04 ==>
05 ==>
06 ==>
07 ==>
08 ==>
09 ==>
10 ==>

Press ENTER to create FSEGDEF.
Enter UP or DOWN to view other screens.
Enter END or CANCEL to cancel without creating.

```

Figure 65. Creating a file key segment definition - Page 1

3. To add the file segment definition to the data repository, press Enter. To continue creating a file segment definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
4. Fill in the fields on the second file segment definition panel. The second file key segment definition panel is similar to the first; it allows you to define key segments 11 through 24.
5. When you are finished defining key segments, press Enter to add the definition to the data repository.

## Installing file key segment definitions

The INStall command is not valid for file key segment definitions.

## FSEGDEF attribute descriptions

Provide the following information about the definition, as appropriate:

**Name** Specify a 1- to 8-character name for the file key segment definition.

### Version

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

### Description

(Optional.) Specify a 1- to 30-character description of the file key segments.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### User Data

(Optional.) Three 8-character fields provided for any site-specific data related to the file key segments. CICSplex SM makes no use of this user data.

## FSEGDEF

The remaining fields on the two file key segment definition panels identify the attributes of up to 24 key segments. Provide the following information for each key segment, as appropriate:

- Pos** Specify the starting character position of the key segment within the record. The first byte is character 0.
- Len** Specify the length of the key segment in bytes, in the range 0 through 999.
- Dup** Specify Y or N to indicate whether duplicate keys are permitted.
- Mod** Specify Y or N to indicate whether the key is modifiable.
- Bin** Specify Y or N to indicate whether the segment is a binary key segment.
- Nc** Specify Y or N to indicate whether null characters are allowed in the key.
- Sg** Specify Y or N to indicate whether the segment is part of the same key as the next segment.
- Alt** Specify Y or N to indicate whether keys should be sorted using an EBCDIC collating sequence (as an alternative to ASCII).
- Nul** Specify the number of the null key, in the range 0 through 255.

If the file key segment definition is complete, press Enter. If you want to specify additional key segments, issue the DOWN command.

The second file key segment definition panel is similar to the first; it allows you to define key segments 11 through 24. When you are finished defining key segments, press Enter to add the definition to the data repository.

## Chapter 34. Journal model resource definitions

For systems running the CICS TS for OS/390 Release 1 and later, journal model definitions describe the association between a CICS journal name and the MVS system log streams or the SMF log.

### Accessing the BAS journal model definitions

To display information about existing journal model definitions:

**Issue the command:**

JRNMDEF [*resdef*]

where *resdef* is the specific or generic name of a journal model definition. If you omit this parameter, the view, illustrated in Figure 66, includes information about all existing journal model definitions within the current context.

**Select:**

JRNMDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 ==JRNMDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name      Ver      Created          Changed          Description
-----
EYUJNM01      1      1/09/97 12:12    1/09/97 12:12    Journal 1 - MVS
EYUJNM01      2      1/10/97 14:20    1/10/97 14:20    Journal 1 - MVS
EYUJNM99      1      1/09/97 12:19    1/09/97 12:22    Journal 99 - SMF
```

Figure 66. The JRNMDEF view

### Working with the JRNMDEF view

The topics covered in this section are:

- “Availability” of the JRNMDEF view
- “Action commands” for the JRNMDEF view
- “Hyperlink fields” on page 208 for the JRNMDEF view

#### Availability

Journal models can be defined for systems running the CICS TS for OS/390 Release 1 and later.

#### Action commands

Table 17 summarizes the action commands you can use with the JRNMDEF view.

Table 17. JRNMDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a journal model definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of journal model definitions, as described on page 29.

Table 17. JRNMDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a journal model definition in the data repository.
CREate	CRE	The format of the resulting panel is similar to that shown in Figure 67. All of the fields are nonmodifiable. Create a journal model definition and add it to the data repository, as described on page 208.
n/a	INS	For CICS Transaction Server for OS/390 Release 1 and later, install a journal model in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove <i>resdef version</i>	REM	Remove a journal model definition from the data repository, as described on page 33.
n/a	UPD	Update a journal model definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 67. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the JRNMDEF view.

## Defining journal models using BAS

To create a journal model definition:

1. Issue the create primary (CREate) or line (CRE) action command from the JRNMDEF view.
2. Fill in the fields on the journal model definition panel (see Figure 67):

```

COMMAND  ===>
Name      ===> EYUJNM01   Version ===> 1
Description ===> Journal 1 - MVS
RESGROUP  ===>
User Data  ===>

JournalName ===>          Journal Model Name
LogStreamType ===> MVS     Log stream type (MVS, SMF, DUMMY)
StreamName  ===>          MVS Log Stream Name

```

Press ENTER to create JRNMDEF.  
Type END or CANCEL to cancel without creating.

Figure 67. Creating a journal model definition

3. To add the journal model definition to the data repository, press Enter.

---

## Installing BAS journal model definitions

To install a journal model in an active system, issue the INS command.

After installation of a JRNMDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM JRNLMODL command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE JOURNALMODEL command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE JOURNALMODEL command; see *CICS System Programming Reference*.

---

## Journal model definition attributes

The journal model definition attribute descriptions are:

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### Name

Specify a 1- to 8-character name for the journal model definition.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### StreamName

(Optional.) specifies either an explicit MVS system logger log stream name, or a template used to construct the log stream name. STREAMNAME is applicable only to journal models defined with a LOGSTREAMTYPE of MVS.

A stream name can be:

#### Unqualified name

1 to 8 alphanumeric or national characters.

#### Qualified name

Multiple names joined by periods, up to a maximum of 26 characters.

A stream name can be made up of one or more symbolic names:

#### &USERID.

The symbolic name for the CICS region userid, which can be up to eight characters. If the region does not have a userid, the string 'CICS' will be used.

#### &APPLID.

The symbolic name for the CICS region APPLID as specified on the system initialization parameter, and which can be up to eight characters.

#### &JNAME.

The symbolic name for a journal name that references, either by a specific or generic match, this journal model definition. &JNAME. can be up to eight characters in length.

### LogStreamType

specifies where the journal records are to be written. It can be up to five characters, and can have the following values:

### **DUMMY**

No log records are to be written.

### **MVS**

Records are to be written to an MVS system logger log stream. The name of the log stream is specified in the STREAMNAME attribute.

### **SMF**

Journal records are to be written in SMF format to the MVS SMF log instead of to an MVS system logger log stream.

**Note:** SMF is not allowed for the CICS system log or for forward recovery logs.

### **User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the journal model. CICSplex SM makes no use of this data.

### **Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

## Chapter 35. LSR pool resource definitions

LSR pool definitions describe the size and characteristics of local shared resource pools that VSAM uses for certain files.

### Accessing BAS LSR pool definitions

To display information about existing LSR pool definitions:

**Issue the command:**

LSRDEF [*resdef*]

where *resdef* is the specific or generic name of a LSR pool definition. If you omit this parameter, the view, illustrated in Figure 68, includes information about all existing LSR pool definitions within the current context.

**Select:**

LSRDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==LSRDEF=====EYUPLX01=EYUPLX01==27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EYULSR01 1 1/09/97 12:44 1/09/97 12:44 LSR Pool 1
EYULSR01 2 1/10/97 15:30 1/10/97 15:30 LSR Pool 1 - Test
EYULSR02 1 1/09/97 12:51 1/09/97 12:51 LSR Pool 2
```

Figure 68. The LSRDEF view

### Working with the LSRDEF view

The topics covered in this section are:

- “Availability” of the LSRDEF view
- “Action commands” for the LSRDEF view
- “Hyperlink fields” on page 212 for the LSRDEF view

#### Availability

LSR pools can be defined for all managed CICS systems.

#### Action commands

Table 18 summarizes the action commands you can use with the LSRDEF view.

Table 18. LSRDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add an LSR pool definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of LSR pool definitions, as described on page 29.

Table 18. LSRDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse an LSR pool definition in the data repository.
CREate	CRE	<p>The format of the resulting panels is similar to that shown in Figure 69 on page 213 and Figure 70 on page 213. All of the fields are nonmodifiable.</p> <p>Create an LSR pool definition and add it to the data repository, as described on page 212.</p>
n/a	INS	For systems running either CICS/ESA 4.1 and later, install an LSR pool in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove an LSR pool definition from the data repository, as described on page 33.
n/a	UPD	<p>Update an LSR pool definition in the data repository.</p> <p>The format of the resulting panels is similar to that shown in Figure 69 and Figure 70 on page 213. Most of the fields are modifiable.</p>

## Hyperlink fields

There are no hyperlink fields in the LSRDEF view.

---

## Defining LSR pools using BAS

To create an LSR pool definition:

1. Issue the create primary (CREate) or line (CRE) action command from the LSRDEF view.
2. Fill in the fields on the first LSR pool definition panel (see Figure 69 on page 213):



```

COMMAND ==>
Name      ==> EYULSR01   Version ==> 1
Description ==> LSR Pool 1
RESGROUP  ==>
User Data  ==>

LSRpoolid ==> 1          LSR pool ID (1-8, blank)
Maxkeylength ==>         Maximum key length (0-255, blank)
Sharelimit ==> 50        Resource share limit (1-100, blank)
Strings    ==>         Maximum File Strings (1-255, blank)

DATA BUFFER SIZES (3-32767,blank): DATA512 ==>      DATA1K ==>
                                   DATA2K ==>      DATA4K ==>      DATA8K ==>
                                   DATA12K ==>     DATA16K ==>     DATA20K ==>
                                   DATA24K ==>     DATA28K ==>     DATA32K ==>
INDEX BUFFER SIZES (3-32767,blank): INDX512 ==>     INDX1K ==>
                                   INDX2K ==>     INDX4K ==>     INDX8K ==>
                                   INDX12K ==>     INDX16K ==>     INDX20K ==>
                                   INDX24K ==>     INDX28K ==>     INDX32K ==>

Press ENTER to create LSRDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 69. Creating an LSR pool definition - Page 1

3. To add the LSR pool definition to the data repository, press Enter. To continue creating an LSR pool definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
4. Fill in the fields on the second LSR pool definition panel (see Figure 70):

```

COMMAND ==>
Name      EYULSR01   Version ==> 1

HIPERSPACE DATA BUFFER SIZES: (0 - 16777215, blank)
HSDB4K ==>          HSDB8K ==>          HSDB12K ==>
HSDB16K ==>         HSDB20K ==>         HSDB24K ==>
HSDB28K ==>         HSDB32K ==>

HIPERSPACE INDEX BUFFER SIZES: (0 - 16777215, blank)
HSIX4K ==>          HSIX8K ==>          HSIX12K ==>
HSIX16K ==>         HSIX20K ==>         HSIX24K ==>
HSIX28K ==>         HSIX32K ==>

Press ENTER to create LSRDEF.
Enter UP or DOWN to view other screens.
Enter END or CANCEL to cancel without creating.

```

Figure 70. Creating an LSR pool definition - Page 2

5. To add the LSR pool definition to the data repository, press Enter.

## Installing BAS LSP pool definitions

To install an LSR pool in an active system, issue the INS command.

After installation of a LSRDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM LSRPOOL command; see *CICSplex System Manager Operations Views Reference*.

- There is no CICS CEMT INQUIRE command for LSR pools.
- There is no EXEC CICS INQUIRE command for LSR pools.

---

## LSR pool definition attributes

The LSR pool definition attribute descriptions are:

### Data Buffer Sizes

specify the number of data buffers of each size that you require, in the range 3 through 32767. If you leave this fields blank, there are no default values.

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### Hiperspace™ Data Buffer Sizes

Specify the number of Hiperspace data buffers of each size that you require, in the range 0 through 16777215. If you leave these fields blank, there are no default values.

**Note:** If you specify a value for a Hiperspace data buffer of a given size, you must also specify a value for the data buffer of the same size.

### Hiperspace Index Buffer Sizes

Specify the number of Hiperspace index buffers of each size that you require, in the range 0 through 16777215. If you leave these fields blank, there are no default values.

**Note:** If you specify a value for a Hiperspace index buffer of a given size, you must also specify a value for the index buffer of the same size.

### Index Buffer Sizes

#### INDEX512(*value*)

specifies the number, in the range 3 through 32767, of 512-byte index buffers you require.

#### INDEX1K(*value*)

specifies the number, in the range 3 through 32767, of 1KB index buffers you require.

#### INDEX2K(*value*)

specifies the number, in the range 3 through 32767, of 2KB index buffers you require.

#### INDEX4K(*value*)

specifies the number, in the range 3 through 32767, of 4KB index buffers you require.

#### INDEX8K(*value*)

specifies the number, in the range 3 through 32767, of 8KB index buffers you require.

#### INDEX12K(*value*)

specifies the number, in the range 3 through 32767, of 12KB index buffers you require.

#### INDEX16K(*value*)

specifies the number, in the range 3 through 32767, of 16KB index buffers you require.

**INDEX20K(*value*)**

specifies the number, in the range 3 through 32767, of 20KB index buffers you require.

**INDEX24K(*value*)**

specifies the number, in the range 3 through 32767, of 24KB index buffers you require.

**INDEX28K(*value*)**

specifies the number, in the range 3 through 32767, of 28KB index buffers you require.

**INDEX32K(*value*)**

specifies the number, in the range 3 through 32767, of 32KB index buffers you require.

**LSRpoolid**

specifies the identifier of the local shared resource pool being defined. The value must be in the range 1 through 8. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Maxkeylength**

specifies the maximum key length of any of the files that are to share resources. The value must be in the range 0 through 255. This value overrides part of the CICS resource calculation. If you do not specify it, CICS determines the maximum key length.

**Name**

Specify a 1- to 8-character name for the LSR pool definition.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Sharelimit**

specifies, as an integer, the percentage of the maximum amount of VSAM resources to be allocated. The number can be any value from 1 through 100.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Strings**

specifies the limit, in the range 1 through 255, of all the strings of the files in the pool. If you leave this field blank, there is no default value.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the LSR pool. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.



## Chapter 36. Map set resource definitions

Map set definitions describe the characteristics of a group of related screen layouts, or maps.

### Accessing BAS map set definitions

To display information about existing map set definitions:

**Issue the command:**

MAPDEF [*resdef*]

where *resdef* is the specific or generic name of a map set definition. If you omit this parameter, the view, illustrated in Figure 71, includes information about all existing map set definitions within the current context.

**Select:**

MAPDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==MAPDEF=====EYUPLX01=EYUPLX01==27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EYUMAP01 1 1/09/97 13:01 1/09/97 13:01 Payroll Map Set
EYUMAP02 1 1/09/97 13:07 1/09/97 13:07 Employee Database Map Set
EYUMAP02 2 1/09/97 13:15 1/09/97 13:15 Employee Database Map Set
```

Figure 71. The MAPDEF view

### Working with the MAPDEF view

The topics covered by this section are:

- “Availability” of the MAPDEF view
- “Action commands” for the MAPDEF view
- “Hyperlink fields” on page 218 for the MAPDEF view

#### Availability

Map sets can be defined for all managed CICS systems.

#### Action commands

Table 19 summarizes the action commands you can use with the MAPDEF view.

Table 19. MAPDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a map set definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of map set definitions, as described on page 29.

## MAPDEF

Table 19. MAPDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a map set definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 72. All of the fields are nonmodifiable.
CREate	CRE	Create a map set definition and add it to the data repository, as described on page 218.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a map set in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a map set definition from the data repository, as described on page 33.
n/a	UPD	Update a map set definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 72. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the MAPDEF view.

## Defining map sets using BAS

To create a map set definition:

1. Issue the create primary (CREate) or line (CRE) action command from the MAPDEF view.
2. Fill in the fields on the map set definition panel (see Figure 72):

```
COMMAND ==>
Name      ==> EYUMAP01  Version ==> 1
Description ==> Payroll Map Set
RESGROUP  ==>
User Data  ==>

Resident   ==> NO      Resident status (NO, YES)
Usage      ==> NORMAL  Storage release (NORMAL, TRANSIENT)
UseLPACopy ==> NO      Map set used from LPA (NO, YES)
Status     ==> ENABLED Map set status (ENABLED, DISABLED)
Rsl        ==> 0       Resource security value (0-24,PUBLIC,blank)

Press ENTER to create MAPDEF.
Type END or CANCEL to cancel without creating.
```

Figure 72. Creating a map set definition

3. To add the map set definition to the data repository, press Enter.

---

## Installing BAS map set definitions

To install a map set in an active system, issue the INS command.

After installation of a MAPDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM PROGRAM command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE PROGRAM command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE PROGRAM command; see *CICS System Programming Reference*.

---

## Map set definition attributes

The map set definition attribute descriptions are:

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### Name

Specify a 1- to 8-character name for the map set definition.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### Resident

specifies the residence status of the map set.

**NO** The map set is not to be permanently resident.

**YES** The map set is to be loaded on first reference and is then to be permanently resident in virtual storage, but is to be pageable by the operating system.

### Rsl

For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the program:

**0** Transactions with RSL checking specified are not allowed to access the program.

**value** A resource security value, in the range 1 through 24.

### PUBLIC

Any transaction is allowed to access the program.

For systems running a version of CICS other than CICS/MVS 2.1.2, leave this field blank.

### Status

specifies the map set status.

### DISABLED

The map set may not be used.

### ENABLED

The map set may be used.

### Usage

specifies when the storage for this map set will be released.

### **NORMAL**

When the use count of the map set reaches zero, it will become eligible for removal from storage as part of the normal dynamic storage compression process.

### **TRANSIENT**

When the use count for this map set becomes zero, the storage for this map set is released. This value should be specified for map sets that are referenced infrequently.

### **UseLAcopy**

specifies whether the map set is to be used from the link pack area (LPA).

#### **NO**

The map set is not to be used from the LPA. It is loaded into the CICS partition.

#### **YES**

The map set can be used from the LPA if LPA=YES is specified as a system initialization parameter.

### **User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the map set. CICSplex SM makes no use of this user data.

### **Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.



## Chapter 37. Partner resource definitions

Partner definitions enable CICS application programs to communicate via APPC protocols with a partner application program running on a remote logical unit.

### Accessing BAS partner definitions

To display information about existing partner definitions:

**Issue the command:**

PARTDEF [*resdef*]

where *resdef* is the specific or generic name of a partner definition. If you omit this parameter, the view, illustrated in Figure 73, includes information about all existing partner definitions within the current context.

**Select:**

PARTDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==PARTDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====2==
CMD Name Ver Created Changed Description
-----
EYUPRT01 1 1/09/97 13:25 1/09/97 13:25
EYUPRT01 2 1/10/97 07:50 1/10/97 07:50
```

Figure 73. The PARTDEF view

### Working with the PARTDEF view

The topics covered by this section are:

- “Availability” of the PARTDEF view
- “Action commands” for the PARTDEF view
- “Hyperlink fields” on page 222 for the PARTDEF view

#### Availability

Partners can be defined for CICS/ESA 3.3 and later systems.

#### Action commands

Table 20 summarizes the action commands you can use with the PARTDEF view.

Table 20. PARTDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a partner definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of partner definitions, as described on page 29.

## PARTDEF

Table 20. PARTDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a partner definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 74 on page 223. All of the fields are nonmodifiable.
CREate	CRE	Create a partner definition and add it to the data repository, as described on page 222.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a partner in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a partner definition from the data repository, as described on page 33.
n/a	UPD	Update a partner definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 74. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the PARTDEF view.

---

## Defining partner definitions using BAS

To create a partner definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PARTDEF view.
2. Fill in the fields on the partner definition panel (see Figure 74 on page 223):

```

COMMAND ==>
Name      ==> EYUPRT01      Version ==> 1
Description ==>
RESGROUP  ==>
User Data  ==>

NetName    ==>              Netname in CONNECTION definition
Network    ==>              Network name

Profile    ==> DFHCICSA     Profile name

TPname     ==>              Remote trasaction program name
           ==>
           ==>
XTPname    ==>              Alternative TPname
           ==>
           ==>
           ==>
           ==>

Press ENTER to create PARTDEF.
Type END or CANCEL to cancel without creating.

```

Figure 74. Creating a partner definition

3. To add the partner definition to the data repository, press Enter.

## Installing BAS partner definitions

To install a partner in an active system, issue the INS command.

After installation of a PARTDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM PARTNER command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE PARTNER command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE PARTNER command; see *CICS System Programming Reference*.

## Partner definition attributes

The partner definition attribute descriptions are:

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### Name

Specify a 1- to 8-character, alphanumeric name for the partner definition.

### NetName

is the netname of the logical unit on which the partner application program is running. It matches the NETNAME attribute specified in the connection definition. The name can be up to eight characters in length.

### Network

You can use this optional attribute to specify the name of the network on which the partner LU is located. The name can be up to eight characters in length.

### Profile

specifies which communication profile is to be used for the session and conversation. The default PROFILE is DFHCICSA.

## PARTDEF

### REGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### TPname

specifies the name of the remote transaction program that will be running on the partner LU. The definition of a remote TP name is mandatory; you must specify either TPNAME or its alternative, XTPNAME. This name can be up to 64 characters in length.

### User Data

(Optional.) Three 8-character fields provided for any site-specific data related to the partner. CICSplex SM makes no use of this user data.

### Version

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

### XTPname

This attribute may be used as an alternative to TPNAME; you **must** specify one of the two, because the definition of a remote TP name is mandatory.

Enter a hexadecimal string up to 128 characters in length, representing the name of the remote transaction program that runs on the partner LU. All hexadecimal combinations are acceptable **except X'40'**.

---

## Chapter 38. PIPELINE resource definitions

A PIPELINE resource definition is used when a CICS application is acting as a web service provider or requester. It provides information about the message handler programs that act on a service request and on the response. See *CICS Resource Definition Guide* for more information about PIPELINE resource definitions in CICS.

You need to use the Web User Interface (WUI) to define PIPELINE resource definitions in CICSplex SM. There are no corresponding EUI views.

---

### Working with PIPELINE definitions

Pipelines can be defined for CICS TS 3.1 and later systems.

To display information about existing pipeline definitions from the WUI main menu, click **Administration views** → **Basic CICS resource administration views** → **CICS resource definitions** → **Pipeline definitions**. This opens the **Pipeline definition** tabular view (EYUSTARTPIPEDEF.TABULAR). Click on one of the displayed pipeline definitions names to open a detailed view of the selected definition. All of the fields are nonmodifiable.

Table 21 summarizes the actions you can perform from the **Pipeline definition** tabular or detailed view.

Table 21. Pipeline definition view action commands

Action command button	Description
<b>Add to resource group</b>	Add a PIPELINE definition to a resource group.
<b>Create</b>	Create a PIPELINE definition and add it to the data repository.
	This opens a detailed view of a preselected resource. All of the fields are modifiable.
<b>Install</b>	Install a PIPELINE in an active system.
<b>Remove</b>	Remove a PIPELINE definition from the data repository.
<b>Update</b>	Update a PIPELINE definition in the data repository.
	This opens a detailed view of a preselected resource. Most of the fields are modifiable.

See *CICS Resource Definition Guide* for an explanation of the pipeline attributes you need to specify when creating and updating pipeline definitions. See *CICSplex System Manager Resource Tables Reference* for a list of the corresponding PIPEDEF resource table attributes.

After installation of a PIPELINE resource definition, you can enquire about the resulting object using:

- The WUI **Pipeline** view (EYUSTARTPIPELINE); from the WUI main menu, click **CICS operations views** → **TCP/IP service operations views** → **Pipeline**.
- The CICS CEMT INQUIRE PIPELINE command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE PIPELINE command; see *CICS System Programming Reference*.

## PIPELINE

## Chapter 39. Process type definitions

Process type definitions describe the physical and operational characteristics of CICS business transaction services (BTS) process types.

### Accessing BAS process type definitions

To display information about existing process type definitions:

**Issue the command:**

PROCDEF [*resdef*]

where *resdef* is the specific or generic name of a process type definition. If you omit this parameter, the view, illustrated in Figure 75, includes information about all existing process type definitions within the current context.

**Select:**

PROCDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 ==PROCDEF=====EYUPLX01=EYUPLX01===27FEB2005==11:30:30=CPSM=====2==
CMD Name      Ver      Created      Changed      Description
-----
EYUPTP08      1      1/09/98 10:02    1/09/98 10:02    Processtype for SALES pr
EYUPTP08      2      1/09/98 10:14    1/10/98 14:33    Processtype for GOODS pr
```

Figure 75. The PROCDEF view

### Working with the PROCDEF view

The topics covered by this section are:

- “Availability” of the PROCDEF view
- “Action commands” for the PROCDEF view
- “Hyperlink fields” on page 228 for the PROCDEF view

#### Availability

Process types can be defined for CICS Transaction Server for z/OS, Version 3 Release 1 and later systems.

#### Action commands

Table 22 summarizes the action commands you can use with the PROCDEF view.

Table 22. PROCDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a process type definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of processtype definitions, as described on page 29.

## PROCDEF

Table 22. PROCDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a process type definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 76. All of the fields are nonmodifiable.
CREate	CRE	Create a process type definition and add it to the data repository, as described on page 192.
n/a	INS	For systems running CICS TS for OS/390 Release 3 and later, install a process type in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a process type definition from the data repository, as described on page 33.
n/a	UPD	Update a process type definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 76. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the PROCDEF view.

## Defining process types using BAS

To create a process type definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PROCDEF view.
2. Fill in the fields on the process type definition panel (see Figure 76):

```
COMMAND ==>
Name      ==> EYUPTP08      Version ==> 1
Description ==> Processtype for SALES processes
RESGROUP  ==>
User Data  ==>

Status     ==> ENABLED      Enabled|Disabled
File       ==>              File name
Auditlog   ==>              Name of Audit Log
Auditlevel ==> OFF          Off|Process|Activity|Full

Press ENTER to update PROCDEF.
Type END or CANCEL to cancel without creating.
```

Figure 76. Creating a process type definition

3. To add the process type definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.



---

## Installing BAS process type definitions

To install a process type in an active system, issue the INS command.

After installation of a PROCDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM PROCTYP command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE PROCESSTYPE command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE PROCESSTYPE command; see *CICS System Programming Reference*.

---

## Process type definition attributes

The process type definition attribute descriptions are:

### **AuditLevel**

specifies the initial level of audit logging for processes of this type. If you specify any value other than OFF, you must also specify the AUDITLOG option.

### **ACTIVITY**

Activity-level auditing. Audit records will be written from:

1. The process audit points
2. The activity primary audit points.

That is, an audit record is written:

- Whenever a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is acquired
  - Completes
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed

and:

- Each time data is placed in a process container belonging to a process of this type; that is, each time a PUT CONTAINER PROCESS or PUT CONTAINER ACQPROCESS command is issued against a process of this type.
- Each time a process container belonging to a process of this type is deleted.
- Each time a root activity (DFHROOT) of this type of process is activated.
- Every time a non-root activity belonging to a process of this type:
  - Is requested to link
  - Is activated
  - Completes

**FULL** Full auditing. Audit records will be written from:

1. The process audit points
2. The activity primary *and* secondary audit points.

That is, an audit record is written:

- Whenever a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is acquired
  - Completes
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed
- and:
  - Each time data is placed in a process container belonging to a process of this type
  - Each time a process container belonging to a process of this type is deleted.
  - Each time a root activity (DFHROOT) of this type of process is activated.
- Every time a non-root activity belonging to a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is activated
  - Completes
  - Is acquired
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed
  - Is deleted.

**OFF** No audit trail records will be written.

### PROCESS

Process-level auditing. Audit records will be written from the process audit points only. That is, an audit record is written whenever a process of this type:

- Is defined
- Is requested to run
- Is requested to link
- Is acquired
- Completes
- Is reset
- Is canceled
- Is suspended
- Is resumed

and:

- Each time data is placed in a process container belonging to a process of this type
- Each time a process container belonging to a process of this type is deleted.
- Each time a root activity (DFHROOT) of this type of process is activated.

For details of the records that are written from the process, activity primary, and activity secondary audit points, see the *CICS Business Transaction Services* manual.

**Auditlog**

specifies the name of a CICS journal to which audit trail records will be written, for processes of this type and their constituent activities. The name can be up to eight characters long. If you do not specify an audit log, no audit records will be kept for processes of this type.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**File**

specifies the name of the CICS file definition that will be used to write the process and activity records of this process-type to its associated repository data set. The name can be up to eight characters long.

**Name**

Specify a 1- to 8-character name for the process type definition.

**RESGROUP**

(Optional.) Specify the name of an existing resource to which the definition is to be automatically added.

**Status**

specifies the initial status of the process-type .

**DISABLED**

Processes of this type cannot be created. An EXEC CICS DEFINE PROCESS request that tries to create a process of this type results in the INVREQ condition being returned to the application program.

**ENABLED**

Processes of this type can be created.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the process type. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.



## Chapter 40. Profile resource definitions

Profile definitions control the interactions between transactions and terminals or logical units.

### Accessing BAS profile resource definitions

To display information about existing profile definitions:

**Issue the command:**

PROFDEF [*resdef*]

where *resdef* is the specific or generic name of a profile definition. If you omit this parameter, the view, illustrated in Figure 77, includes information about all existing profile definitions within the current context.

**Select:**

PROFDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==PROFDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EYUPRF01 1 1/09/97 13:36 1/09/97 13:36
EYUPRF02 1 1/09/97 13:42 1/09/97 13:42
EYUPRF03 1 1/09/97 13:48 1/09/97 13:48
```

Figure 77. The PROFDEF view

### Working with the PROFDEF view

The topics covered by this section are:

- “Availability” of the PROFDEF view
- “Action commands” for the PROFDEF view
- “Hyperlink fields” on page 234 for the PROFDEF view

#### Availability

Profiles can be defined for all managed CICS systems.

#### Action commands

Table 23 summarizes the action commands you can use with the PROFDEF view.

Table 23. PROFDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a profile definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of profile definitions, as described on page 29.

Table 23. PROFDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a profile definition in the data repository.
CREate	CRE	The format of the resulting panels is similar to that shown in Figure 78 and Figure 79 on page 235. All of the fields are nonmodifiable. Create a profile definition and add it to the data repository, as described on page 234.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a profile in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve resdef version	REM	Remove a profile definition from the data repository, as described on page 33.
n/a	UPD	Update a profile definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 78 and Figure 79 on page 235. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the PROFDEF view.

## Defining profiles using BAS

To create a profile definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PROFDEF view.
2. Fill in the fields on the first profile definition panel (see Figure 78):

```

COMMAND  ===>
Name      ===> EYUPRF01  Version ===> 1
Description ===>
RESGROUP  ===>
User Data  ===>

Scrnsz    ===> DEFAULT  Screen size (DEFAULT, ALTERNATE)
Uctran    ===> NO       Uppercase translation (YES, NO)
Modename   ===>         LOGMODE entry for session group
Printercomp ===> NO     Printer compatibility option (YES, NO)
Journal    ===> NO     Journal Id (NO, 1-99, blank)
Msgjrn1    ===> NO     Message journaling (NO, INPUT, OUTPUT, INOUT)
Msginteg   ===> NO     Journal messages (YES, NO)
Onewte     ===> NO     One write operation (YES, NO)
Protect    ===> N/A     Output message recovery (YES, NO, N/A)
Chaincontrol ===> NO    Outbound chaining control (YES, NO)

Press ENTER to create PROFDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.
```

Figure 78. Creating a profile definition - Page 1

3. To add the profile definition to the data repository, press Enter. To continue creating a profile definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
4. Fill in the fields on the second profile definition panel (see Figure 79):

COMMAND ==>

Name	EYUPRF01	Version ==> 1
Dvsuprt	==> ALL	Supported devices (ALL, NONVTAM, VTAM)
Inbfmh	==> NO	FMH passing to application (NO, ALL, DIP, EODS)
Raq	==> NO	Read Ahead Queueing option (YES, NO)
Logrec	==> NO	Receive required logical record (YES, NO)
Nepclass	==> 0	Node error program tran class (0 - 255, blank)
Rtimeout	==> NO	Read Timeout value (NO, 1-7000, blank)
Facilitylike	==>	Termid used as a template for Bridge Exit

Press ENTER to create PROFDEF.  
Enter UP or DOWN to view other screens.  
Type END or CANCEL to cancel without creating.

Figure 79. Creating a profile definition - Page 2

5. To add the profile definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS profile definitions

To install a profile in an active system, issue the INS command.

After installation of a PROFDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM PROFILE command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE PROFILE command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE PROFILE command; see *CICS System Programming Reference*.

## Profile definition attributes

The profile definition attribute descriptions are:

### Chaincontrol

specifies whether the application program can control the outbound chaining of request units. If you specify CHAINCONTROL(YES), ONEWTE(YES) means one chain and not one terminal control output request.

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### Dvsuprt

specifies the devices (terminals or logical units) that are to be supported.

**ALL** The profile can be used with any terminal or logical unit.

### NONVTAM

The profile can be used only with non-VTAM terminals.

**VTAM** The profile can be used only with logical units.

## Facilitylike

For systems running CICS TS for OS/390 Release 2 and later, identifies the 1–to 4–character name of a terminal definition or an installed terminal definition (TERMDEF) to be used as a template by a bridge exit. When this transaction is run in a 3270 bridge environment, the principal facility will be built to have the same attributes as the terminal defined by the Facilitylike field.

There is no default value for this attribute.

If you are running in a CICS system started with the VTAM=NO system initialization (SIT) parameter, the resource definition specified by Facilitylike must be defined as a remote terminal.

## Inbfmh (SNA LUs only)

specifies, for profiles used with logical units, whether a function management header (FMH) received from a logical unit is to be passed to the application program.

**ALL** All FMHs (except APPC FMHs and LU6.1 ATTACH and SYNCPOINT FMHs that are processed by CICS) are passed to the application program. This value is required for function shipping transactions such as CSMI, transactions which use distributed transaction processing, and for distributed program link requests.

**DIP** The batch data interchange program (DFHDIP) is to process inbound FMHs.

**EODS** An FMH is passed to the application program only if it indicates end of data set (EODS).

**NO** The FMHs are discarded.

## Journal

specifies that you want automatic journaling of messages to take place, by giving the identifier of the journal.

**NO** No automatic journaling of messages is to take place.

### *number*

The journal identification to be used for automatic journaling. This can be any number in the range 01 through 99. This number is appended to the letters DFHJ to give a journal identification of the form DFHJnn and this maps to an MVS system logger general log stream.

**Note:** In CICS Transaction Server for OS/390, Version 1 Release 1, and subsequent releases, DFHJ01 is **not** the system log.

## Logrec

specifies whether the design of the application requires that each EXEC CICS RECEIVE request is to be satisfied by a logical record.

## Modename

specifies the name that identifies a group of sessions for use on an APPC connection. The name can be up to eight characters in length.

## Msginteg (SNA LUs only)

specifies whether a definite response is to be requested with an output request to a logical unit.

## Msgjrn1

specifies which messages are to be automatically journaled.

**NO** No message journaling is required.



**INPUT** Journaling is required for input messages.

**OUTPUT**

Journaling is to be performed for output messages.

**INOUT**

Journaling is to be performed for input and output messages.

**Name**

Specify a 1- to 8-character name for the profile definition.

**Nepclass (VTAM only)**

specifies the node error program transaction class.

**0** This results in a link to the default node error program module for VTAM devices, or is the default value for non-VTAM devices.

**value** The transaction class for the (nondefault) node error program module. The value can be in the range 1 through 255. For programming information on the node error program, see the *CICS Customization Guide*.

**Onewte**

specifies whether the transaction is permitted only one write operation or EXEC CICS SEND during its execution. YES has the effect of forcing the LAST option on the first write of the transaction. Any additional write requests are treated as errors, and the task is made ready for abnormal termination.

**Printercomp**

specifies the level of compatibility required for the generation of data streams to support the printer compatibility option for the BMS SEND TEXT command.

**NO** Each line of output starts with a blank character, so that the format is equivalent to that on a 3270 display where an attribute byte precedes each line.

**YES** No blank character is inserted, so that forms-feed characters included as the first character of your data are honored and the full width of the printer is available for your data.

If you use the BMS forms feed option, specify YES.

**Protect**

For SNA logical units, specify YES or NO to indicate whether recovery for output messages is required. If the Protect value does not apply to this definition, specify N/A.

**Raq (SNA terminals only)**

specifies whether the 'read ahead queuing' option is required.

**NO** The transaction obeys SNA protocols and only SEND and RECEIVE when in the correct mode. If it does not follow the protocol, it may be abended with code ATCV.

**YES** The transaction may not obey SNA protocols, and CICS queues incoming data on temporary storage until the data is specifically requested by the transaction. RAQ(YES) is provided only for compatibility with transactions that support both bisynchronous devices and logical units, and its use is not recommended.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### **Rtimeout**

specifies the time-out value:

- For the read time-out feature. The task that is timed out receives an AKCT or AZCT abend. (Note that if a value is specified and you wish to let it default to NO, you must completely delete the value previously specified.)
- To terminate an IIOF request processor task that has been waiting for a method request for longer than the RTIMOUT value.

RTIMOUT has no effect for MRO or basic (unmapped) APPC connections.

**NO** The read time-out feature is not required.

***value*** This is an interval (MMSS for minutes and seconds) after which the task is terminated if no input has been received from the terminal. The maximum value that can be specified is 70 minutes. The value specified in this option is rounded up to units of 16.78 seconds. Thus, the minimum value (after rounding-up) is 16.78 seconds.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

### **Scrnsize**

specifies whether the DEFAULT or ALTERNATE buffer size for a 3270 display or printer is to be used.

The SCRNSIZE value is ignored if the TYPETERM definition has ALTSCREEN(0,0) and DEFSCREEN(0,0). That is, the screen size is assumed from the related TERMMODEL attribute in the TYPETERM definition; the page size is taken from PAGESIZE, and the ALTPAGE value is ignored. The 3270 erase write (EW) command is inserted for output requests with the ERASE option.

#### **ALTERNATE**

If the TYPETERM definition has nonzero ALTSCREEN, the alternate screen size mode is applied, using the erase write alternate (EWA) command. That is, whenever a terminal output request with the ERASE option is issued, the 3270 EWA command is inserted in the data stream. The ALTSCREEN value is assumed as the screen size, and BMS uses the value in ALTPAGE as the page size.

SCRNSIZE(ALTERNATE) may be used for all CICS service transactions (for example, CSMT).

#### **DEFAULT**

If the TYPETERM definition has nonzero ALTSCREEN or nonzero DEFSCREEN, the default screen size mode is applied, using the erase write (EW) command. That is, whenever the terminal issues a terminal output request with the ERASE option, the 3270 EW command is inserted in the data stream. The screen size specified in the DEFSCREEN attribute is assumed, and BMS uses the value specified in the PAGESIZE attribute as the page size.

### **Uctran (VTAM only)**

specifies whether terminal input is to be translated to uppercase before passing to programs for the transaction using this profile.

### **User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the profile. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.



## Chapter 41. Program resource definitions

Program definitions describe the control information for a program that is stored in the program library and used to process a transaction.

### Accessing BAS program definitions

To display information about existing program definitions:

**Issue the command:**

PROGDEF [*resdef*]

where *resdef* is the specific or generic name of a program definition. If you omit this parameter, the view, illustrated in Figure 80, includes information about all existing program definitions within the current context.

**Select:**

PROGDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 ==PROGDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====4====
CMD Name      Ver      Created      Changed      Description
-----
EYUPAUTO      1      1/17/97 10:52    1/17/97 10:52
EYUPAUT2      1      1/17/97 11:03    1/17/97 11:03
EYUPRG01      1      1/09/97 13:57    1/09/97 13:57    SSET - Definition
EYUPRG02      1      1/09/97 14:12    1/09/97 14:12    SSET - Definition
```

Figure 80. The PROGDEF view

### Working with the PROGDEF view

The topics covered by this section are:

- “Availability” of the PROGDEF view
- “Action commands” for the PROGDEF view
- “Hyperlink fields” on page 242 for the PROGDEF view

#### Availability

Programs can be defined for all managed CICS systems.

#### Action commands

Table 24 summarizes the action commands you can use with the PROGDEF view.

Table 24. PROGDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a program definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of program definitions, as described on page 29.

## PROGDEF

Table 24. *PROGDEF* view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a program definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 81 on page 243. All of the fields are nonmodifiable.
CREate	CRE	Create a program definition and add it to the data repository, as described on page 242.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a program in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef</i> version	REM	Remove a program definition from the data repository, as described on page 33.
n/a	UPD	Update a program definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 81. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the PROGDEF view.

---

## Defining programs using BAS

To create a program definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PROGDEF view.
2. Fill in the fields on the program definition panel (see Figure 81 on page 243):

```

COMMAND ==>
Name      ==> EYUPRG01  Version ==> 1
Description ==> Weekly Payroll Run - Local
RESGROUP  ==>
User Data ==>

Language  ==> N/A      (ASSEMBLER, C, COBOL, LE370, PLI, RPG, N/A)
Reload    ==> NO       New copy of program loaded (NO, YES)
Resident  ==> NO       Residence status (NO, YES)
Usage     ==> NORMAL   Storage release (NORMAL, TRANSIENT)
UseLPACopy ==> NO      Program used from LPA/SVA (NO, YES)
Status    ==> ENABLED  Program status (ENABLED, DISABLED)
Cedf      ==> NO       CEDF available (YES, NO)
DataLocation ==> BELOW Data location (BELOW, ANY)
Exekey    ==> USER    Program key (USER, CICS)
Executionset ==> FULLAPI Program run mode (FULLAPI, DPLSUBSET)
Remotesystem ==>      Connection name to remote CICS system
Remotename ==>      Program name in remote CICS region
Transid   ==>      Tranid for remote CICS to attach
Rsl       ==> PUBLIC   Resource security value (0-24,PUBLIC,blank)
Dynamic   ==> NO       Dynamic routing (NO, YES)
Concurrency ==> QUASIRENT Concurrency (N/A, QUASIRENT, THREADSAFE)
JVM       ==> N/A      Java Virtual Machine (NO, YES, DEBUG)
JVMClass  ==>      Java Virtual Machine Class

==>
==>
==>
==>
==>
Hotpool   ==> NO       Hot pooling (NO, YES)
JVM Profile ==> DFHJVMPR JVM profile name
Press ENTER to create PROGDEF.
Type END or CANCEL to cancel without creating.

```

Figure 81. Creating a program definition

- To add the program definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

**Note:** The Hotpool attribute is valid only in CICS Transaction Server 2.2 and 2.3.

## Installing BAS program definitions

To install a program in an active system, issue the `INS` command.

After installation of a `PROGDEF` resource definition, you can enquire about the resultant object using:

- The `CICSplex SM PROGRAM` command; see *CICSplex System Manager Operations Views Reference*.
- The `CICS CEMT INQUIRE PROGRAM` command; see *CICS Supplied Transactions*.
- The `EXEC CICS INQUIRE PROGRAM` command; see *CICS System Programming Reference*.

## Program definition attributes

The program definition attribute descriptions are:

### **Cedf**

specifies the action of the execution diagnostic facility (EDF) when the program is running under EDF control.

**NO** The EDF diagnostic screens are not displayed.

**YES** The EDF diagnostic screens are displayed. If the program is translated with the NOEDF option, only the program initiation and termination EDF screens are displayed.

## Concurrency

specifies whether the program is written to threadsafe standards, or is only quasi-reentrant. You can specify the CONCURRENCY attribute for all CICS executable program objects:

- User application programs
- PLT programs
- User-replaceable programs
- Global user exit programs
- Task-related user exit programs

However, there are special considerations for user-replaceable programs, task-related user exit programs, and global user exit programs. See the *CICS Customization Guide* for information about these categories of threadsafe program.

## QUASIRENT

The program is quasi-reentrant only, and relies on the serialization provided by CICS when accessing shared resources.

The program is restricted to the CICS permitted programming interfaces, and must comply with the CICS quasi-reentrancy rules. For details of these, see the *CICS Application Programming Guide*.

This value is supported for all executable programs.

CICS ensures that the program always executes under the QR TCB, even when control is returned after it has invoked a JVM or an open API task-related user exit, or when it interacts with threadsafe programs.

## THREADSAFE

The program is written to threadsafe standards, and when it accesses shared resources it takes into account the possibility that other programs may be executing concurrently and attempting to modify the same resources. The program, therefore, uses appropriate serialization techniques when accessing any shared resources.

Note that JVM programs must be defined as threadsafe.

For information about CICS DB2 application programs, see the *CICS DB2 Guide*.

For information about writing threadsafe application programs, see the *CICS Application Programming Guide*.

This value is supported for all executable programs. Threadsafesafe programs must be Language Environment<sup>®</sup>-conforming, or be assembler programs.

You can also specify the program CONCURRENCY attribute using a program autoinstall exit, if program autoinstall is active.

## Data location

Commands using the SET option can return a data address to an application program; this operand specifies the location of the data.

**ANY** The program can handle 31-bit addresses. The address of the data can be above or below the 16MB line.



### **BELOW**

The program can handle only 24-bit addresses and must therefore only be given data located below the 16MB line. If necessary, data is copied below the 16MB line before passing its address to the application program.

### **Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

### **Dynamic**

specifies whether, if the program is the subject of a program-link request, the request can be dynamically routed.

### **NO**

If the program is the subject of a program-link request, the dynamic routing program is not invoked.

For a distributed program link (DPL) request, the server region on which the program is to execute must be specified explicitly on the REMOTESYSTEM attribute of the PROGRAM definition or on the SYSID option of the EXEC CICS LINK command; otherwise it defaults to the local region.

### **YES**

If the program is the subject of a program-link request, the CICS dynamic routing program is invoked. Providing that a remote server region is not named explicitly on the SYSID option of the EXEC CICS LINK command, the routing program can route the request to the region on which the program is to execute.

The DYNAMIC attribute takes precedence over the REMOTESYSTEM attribute—see the description of the REMOTESYSTEM attribute.

For guidance information about the dynamic routing of DPL requests, see the *CICS Intercommunication Guide*.

### **Execkey**

specifies the key in which CICS gives control to the program, and determines whether the program can modify CICS-key storage.

### **CICS**

This specifies that CICS is to give control to the program in CICS key when it is invoked.

### **USER**

This specifies that CICS is to give control to the program in user key when it is invoked.

### **Executionset**

Specifies whether you want CICS to link to and run a program as if it were running in a remote CICS region.

### **DPLSUBSET**

Specify DPLSUBSET if you want CICS to link to the program and run it with the API restrictions of a remote DPL program.

### **FULLAPI**

Specify FULLAPI if you want CICS to link to the program and run it without the API restrictions of a DPL program. The program can use the full CICS API.

### **Hotpool (NO|YES)**

Specifies whether or not the Java program object is to be run in a preinitialized Language Environment enclave reused by multiple invocations of the program, under control of an H8 TCB. Programs defined with Hotpool (YES) must also be defined with CONCURRENCY (THREADSAFE).

HOTPOOL is valid only in CICS Transaction Server 2.2 and 2.3.

**Note:** A Java program object is a Java program that has been processed by the VisualAge® for Java Enterprise Toolkit for OS/390 bytecode binder.

**NO** The Java program object is not to be run in a preinitialized Language Environment enclave.

**YES** The Java program object is to be run in a preinitialized Language Environment enclave.

## Jvm

specifies whether or not the program is a Java program that has to operate under the control of a Java Virtual Machine (JVM).

**NO** The program is not to operate under a JVM.

**YES** The program is to operate under a JVM. Specify a class name in the JVMCLASS attribute if you specify JVM(YES).

**Note:** In addition to YES and NO, you can also specify DEBUG, but in compatibility mode only. DEBUG is valid only in CICS Transaction Server 1.3.

## Jvmclass

specifies the main class in a Java program to be run under the control of a JVM. This class name can be overridden using the user-replaceable programs DFHJVMAT (see the *CICS Customization Guide*). You can use DFHJVMAT to specify a class name larger than 255 characters.

Note that this attribute applies only to Java applications running under the control of a JVM. If you specify JVM(NO), at program execution time CICS ignores any value specified in the JVMClass field.

## JVM Profile

specifies the JVM profile name. The default value is DFHJVMPR. The name can be up to eight characters in length.

Do not use profile names beginning with DFH, because these characters are reserved for use by CICS.

## Language

specifies the program language.

### ASSEMBLER

This is an assembler language program.

**C** This is a C/370™ program not compiled by a Language Environment-conforming compiler.

### COBOL

This is a COBOL program.

**LE370** LANGUAGE(LE370) must be specified if the program exploits multi-language support, or if the program has been compiled by a Language Environment-conforming compiler.

**PLI** This is a PL/I program.

**RPG** For CICS/MVS 2.1.2 system, an RPG program.

In most cases, you do not need to specify the LANGUAGE attribute, because the CICS program manager deduces the correct language and ignores the

value you have specified. However, in the following cases, CICS cannot deduce the language, and you must specify the appropriate value:

- Programs written in assembler that do not have the DFHEAI stub

If the language is not specified, and CICS cannot deduce it, transactions that attempt to use the program will abend with code ALIG.

Although, in most cases, you do not need to specify a value for this attribute, you should be aware that the value specified is returned in the LANGDEDUCED and LANGUAGE options of the INQUIRE PROGRAM command. Programs that use this command may be affected if you change the value of this attribute.

This attribute is irrelevant for JVM programs; CICS deduces that the program is a Java program to run under the control of a JVM when JVM(YES) is specified.

If you intend to share the CSD file with a level of CICS prior to CICS/ESA 4.1, do not leave this field blank, because — in the earlier release — the default value is COBOL, which may not be correct.

#### **Name**

Specify a 1- to 8-character name for the program definition.

#### **Reload**

specifies whether a program control link, load, or XCTL request is to bring in a fresh copy of a program. This attribute does not apply to JVM programs.

For more information about the RELOAD attribute, see *CICS Performance Guide*.

#### **Remotename**

(Optional.) specifies, if the program resides on a remote system, the name by which the program is known in the remote CICS region. If you specify RemoteSystem and omit Remotename, the Remotename attribute defaults to the same name as the local name (that is, the program name on this resource definition).

#### **RemoteSystem**

(Optional.) If you want CICS to ship a DPL request to another CICS system, specify the system ID of the remote system. This value must be the name of the connection definition (CONNDEF) for the link to the remote system.

CICSplex SM uses this system ID only if the program is part of a resource group that is directly associated with a resource description (via RESINDSC). If the program is being assigned by a resource assignment (RASGNDEF), CICSplex SM sets the remote system according to the rules, as follows:

##### **USAGE MODE**

Action

##### **LOCAL N/A**

Remotesystem value from PROGDEF is used

##### **REMOTE STAT**

Remotesystem value set to SYSID of the related system

##### **REMOTE DYNAM**

Remotesystem value from PROGDEF is used

#### **RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### Resident

specifies the residence status of the program. This attribute does not apply to JVM programs.

For more information about the effects of the RESIDENT attribute, see the *CICS Performance Guide*.

For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the program:

**0** Transactions with RSL checking specified are not allowed to access the program.

**value** A resource security value, in the range 1 through 24.

### PUBLIC

Any transaction is allowed to access the program.

For systems running a version of CICS other than CICS/MVS 2.1.2, leave this field blank.

### Status

specifies the program status.

#### DISABLED

The program may not be used.

#### ENABLED

The program may be used.

### Transid

If the program is dynamic, this is the default TRANSID used for the distributed program link (DPL) request. If the program is not dynamic, this specifies the name of the transaction you want the remote CICS to attach, and under which it is to run the remote program. If you do not specify a transaction name on the TRANSID attribute, the remote region executes the DPL program under one of the following CICS-supplied default mirror transactions:

**CPMI** This is the CICS mirror transaction for LU6.2 connections that specify data conversion.

**CSMI** This is the CICS ISC mirror transaction for MRO and LU6.2 connections with sync level 2.

**CVMI** This is the CICS/VM mirror transaction for LU6.2 connections with synclevel 1.

### Usage

specifies when the storage for this program is released. This attribute does not apply to JVM programs.

#### NORMAL

When the use count for this program reaches zero, it becomes eligible for removal from storage as part of the normal dynamic program compression process.

This value must be specified if RELOAD(YES) is specified.

#### TRANSIENT

When the use count for this program becomes zero, the storage for this program is released. This value should be specified for programs that are referenced infrequently.

**UseLPACopy**

specifies whether the program is to be used from the link pack area (LPA). This attribute does not apply to JVM programs.

**NO** The program is not to be used from the LPA. It is loaded into the CICS address space.

**YES** The program can be used from the LPA if LPA=YES is specified as a system initialization parameter.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the program. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.



## Chapter 42. Partition set resource definitions

Partition set definitions describe the characteristics of a display partition configuration.

### Accessing BAS partition set definitions

To display information about existing partition set definitions:

**Issue the command:**

PRTNDEF [*resdef*]

where *resdef* is the specific or generic name of a partition set definition. If you omit this parameter, the view, illustrated in Figure 82, includes information about all existing partition set definitions within the current context.

**Select:**

PRTNDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 ==PRTNDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name      Ver      Created      Changed      Description
-----
EYUPTN01      1      1/09/97 14:22    1/09/97 14:22
EYUPTN01      2      1/10/97 07:52    1/10/97 07:52
EYUPTN02      1      1/09/97 14:31    1/09/97 14:31
```

Figure 82. The PRTNDEF view

### Working with the PRTNDEF view

The topics covered by this section are:

- “Installing BAS map set definitions” on page 219 of the PRTNDEF view
- “Installing BAS partner definitions” on page 223 for the PRTNDEF view
- “Working with the PROCDEF view” on page 227 for the PRTNDEF view

### Availability

Partition sets can be defined for all managed CICS systems.

### Action commands

Table 25 summarizes the action commands you can use with the PRTNDEF view.

Table 25. PRTNDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a partition set definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of partition set definitions, as described on page 29.

Table 25. PRTNDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a partition set definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 83. All of the fields are nonmodifiable.
CREate	CRE	Create a partition set definition and add it to the data repository, as described on page 252.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a partition set in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a partition set definition from the data repository, as described on page 33.
n/a	UPD	Update a partition set definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 83. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the PRTNDEF view.

## Defining partition sets using BAS

To create a partner set definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PRTNDEF view.
2. Fill in the fields on the partner set definition panel (see Figure 83):

```

COMMAND  ===>
Name      ===> EYUPTN01  Version ===> 1
Description ===>
RESGROUP  ===>
User Data  ===>

Resident   ===> NO      Resident status (NO, YES)
Usage      ===> NORMAL  Storage release (NORMAL, TRANSIENT)
UseLPACopy ===> NO      Partition set used from LPA (NO, YES)
Status     ===> ENABLED Partition set status (ENABLED, DISABLED)
Rsl        ===> 0       Resource security value (0-24,PUBLIC,blank)

Press ENTER to create PRTNDEF.
Type END or CANCEL to cancel without creating.
```

Figure 83. Creating a partition set definition

3. To add the partition set definition to the data repository, press Enter.



---

## Installing BAS partition set definitions

To install a partition set in an active system, issue the INS command.

After installation of a PRTNDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM PROGRAM command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE PROGRAM command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE PROGRAM command; see *CICS System Programming Reference*.

---

## Partition set definition attributes

The partition set definition attribute descriptions are:

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### Resident

specifies the residence status of the partition set.

**NO** The partition set is not to be permanently resident.

**YES** The partition set is to be loaded on first reference and is then to be permanently resident in virtual storage, but is to be pageable by the operating system.

### RSL

For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the partition set:

**0** Transactions with RSL checking specified are not allowed to access the partition set.

**value** A resource security value, in the range 1 through 24.

### PUBLIC

Any transaction is allowed to access the partition set.

For systems running a version of CICS other than CICS/MVS 2.1.2, leave this field blank.

### Status

specifies the partition set status.

### DISABLED

The partition set may not be used.

### ENABLED

The partition set may be used.

### Usage

specifies when the storage for this partition set is released.

### **NORMAL**

When the use count for this partition set reaches zero, it becomes eligible for removal from storage as part of the normal dynamic program compression process.

### **TRANSIENT**

When the use count for this partition set becomes zero, the storage for this partition set is released. This value should be specified for partition sets that are referenced infrequently.

### **UseLPACopy**

specifies whether the partition set is to be used from the link pack area (LPA).

#### **NO**

The partition set is not to be used from the LPA. It is loaded into the CICS partition.

#### **YES**

The partition set can be used from the LPA if LPA=YES is specified as a system initialization parameter. The use of the partition set from the LPA requires that it has been installed there and that the partition set is not named by the PRVMOD start-up option. For more details on this, see the *CICS Transaction Server for z/OS Installation Guide*.

### **User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the partition set. CICSplex SM makes no use of this user data.

### **Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

---

## Chapter 43. Request model resource definitions

Request model definitions associate inbound IIOF requests with a set of execution characteristics, such as security or priority, and with monitoring and accounting data. The request model definition is based on the format of the IIOF message and by the form of the object keys distributed by CICS Transaction Server Version 1 Release 3.

---

### Accessing the BAS request model definitions

To display information about existing request model definitions:

**Issue the command:**

RQMDEF [resdef]

where resdef is the specific or generic name of a request model definition. If you omit this parameter, the view, illustrated in Figure 84, includes information about all existing request model definitions within the current context.

**Select:**

RQMDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==RQMDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EYURQM01 1 1/09/98 16:14 1/09/98 16:14
EYURQM01 1 1/09/98 16:20 1/09/98 16:20
EYURQM02 1 1/09/98 16:26 1/09/98 16:26
```

Figure 84. The RQMDEF view

---

### Working with the RQMDEF view

The topics covered by this section are:

- “Availability” of the RQMDEF view
- “Action commands” for the RQMDEF view
- “Hyperlink fields” on page 256 for the RQMDEF view

#### Availability

Request models can be defined for CICS Transaction Server Version 1 Release 3 and later.

#### Action commands

Table 26 on page 256 summarizes the action commands you can use with the RQMDEF view.

Table 26. RQMDEF view action commands

Primary command	Line command	Description
ADD resdef version	ADD	Add a request model definition to a resource group, as described in “Adding resource definitions to a resource group” on page 44.
ALTER	n/a	Apply global changes to a set of request model definitions, as described in Figure 9 on page 29.
n/a	BRO	Browse a request model definition in the data repository.
CREate	CRE	The format of the resulting panel is similar to that shown in Figure 85 on page 257. All of the fields are nonmodifiable. Create a request model definition and add it to the data repository, as described in “Defining request models using BAS.”
n/a	INS	For systems running CICS Transaction Server for z/OS, Version 3 Release 1 or later, install a request model in an active system, as described in Chapter 17, “Dynamic resource installation,” on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve resdef version	REM	Remove a request model definition from the data repository, as described in “Remove a resource definition” on page 33.
n/a	UPD	Update a request model definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 85 on page 257. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the RQMDEF view.

---

## Defining request models using BAS

To create a request model definition:

1. Issue the create primary (CREate) or line (CRE) action command from the RQMDEF view.
2. Fill in the fields on the request model panel (see Figure 85 on page 257):

```

----- Create Request Model Definition for EYUPLX01 -----
COMMAND ==>
Name          ==>                               Version   ==> 1
Description    ==>
RESGROUP      ==>
User Data     ==>

Transid       ==> EJ01

CICS TS 2.1 SPECIFIC ATTRIBUTES

CorbaServer    ==>
Type           ==> GENERIC                CORBA | EJB | GENERIC

Corba Parameters
Module         ==> *
               ==>
               ==>
               ==>
               ==>
Interface      ==> *
               ==>
               ==>
               ==>

EJB Parameters
Beanname       ==>
               ==>
               ==>
               ==>
               ==>
Intfacetype    ==> BOTH                   BOTH | HOME | REMOTE | NOTAPPLIC

COMMON PARAMETERS
Operation      ==>
               ==>
               ==>
               ==>
               ==>

CICS TS 1.3 ATTRIBUTES

OMGModule      ==>                        IIOP Module Name
OMGInterface    ==>                        IIOP Interface Name
OMGOperation    ==>                        IIOP Operation Name

Press ENTER to create RQMDEF.
Type END or CANCEL to cancel without creating.

```

Figure 85. Creating a request model definition

3. To add the request model definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS request model definitions

To install a request model in an active system, issue the INS command.

After installation of a RQMDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM RQMODEL command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE REQUESTMODEL command; see *CICS Supplied Transactions*.

- The EXEC CICS INQUIRE REQUESTMODEL command; see *CICS System Programming Reference*.

---

## Request model definition attributes

The request model definition attribute descriptions are:

### Beanname

specifies a bean name, of up to 240 characters, matching the name of the enterprise bean in the XML deployment descriptor. The acceptable characters are A-Z a-z 0-9 . - \_ and accented alphabetic characters. For information about entering mixed case information, see *CICS Resource Definition Guide*. Characters outside this range may give unpredictable results. However, you can use an asterisk as the last (or only) character to specify a generic name.

If you specify a generic value for BEANNAME, then you must specify INTFACETYPE(BOTH) and OPERATION(\*).

If you specify TYPE as GENERIC, you must specify BEANNAME(\*).

For CORBA REQUESTMODELS—that is, if TYPE is CORBA—this field should be blank.

### CORBAServer

specifies the name of the destination CORBASERVER for this REQUESTMODEL. The name can be up to 4 characters in length. The acceptable characters are A-Z a-z 0-9. You can also use an asterisk as the last (or only) character to specify a generic name.

If a generic CORBASERVER is specified, BEANNAME, the CORBA attributes (MODULE and INTERFACE), and the COMMON attributes (OPERATION) must all be an asterisk (\*); INTFACETYPE must be BOTH.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, CORBASERVER must be blank.

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### Intfacetype

specifies the Java interface type for this REQUESTMODEL:

#### BOTH

matches either the home or remote interface for the bean. OPERATION must be an asterisk (\*).

#### HOME

specifies that this is the home interface for the bean.

#### REMOTE

specifies that this is the remote interface for the bean.

#### NOTAPPLIC

specifies that this attribute is not applicable for this request model definition; that is, the interface type is CORBA.

If you specify TYPE as GENERIC, you must specify INTFACETYPE(BOTH).

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, INTFACETYPE must be blank.

**Name**

Specify a 1- to 8-character name for the request model definition.

**Interface**

specifies a name, of up to 255 characters, matching the IDL interface name. The acceptable characters are A-Z a-z 0-9 \_ : and accented alphabetic characters. For information about entering mixed case information, see *CICS Resource Definition Guide*. Characters outside this range may give unpredictable results. However, you can use an asterisk as the last (or only) character to specify a generic name.

Case is significant and should match the original Java or IDL source. However, to comply with CORBA, installation of REQUESTMODELS that specify INTERFACE with values differing only in case from previously installed definitions, will be rejected.

If a generic INTERFACE is specified, the common attributes (OPERATION) must be an asterisk (\*).

For EJB REQUESTMODELS—that is, if TYPE is EJB—this field should be blank.

If you specify TYPE as GENERIC, you must specify INTERFACE(\*).

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, INTERFACE must be blank.

**Module**

specifies a name, of up to 255 characters, matching the IDL module name (which defines the name scope of the interface and operation). Characters outside this range may give unpredictable results. However, you can use an asterisk as the last (or only) character to specify a generic name.

Case is significant and should match the original Java or IDL source. However, to comply with CORBA, installation of REQUESTMODELS that specify MODULE with values differing only in case from previously installed definitions, will be rejected.

If you specify a generic value for MODULE, then you must specify INTERFACE(\*) and OPERATION(\*).

If you specify TYPE as GENERIC, you must specify MODULE(\*).

To indicate the default package, leave this field blank and specify a non-blank (but possibly generic) INTERFACE.

For EJB REQUESTMODELS—that is, if TYPE is EJB—this field should be blank.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, MODULE must be blank.

**OMGInterface**

This attribute is obsolete, but is supported to provide BAS definition support for earlier releases of CICS. If this attribute is present in the request model definition, the following attributes must be blank:

BEANNAME  
CORBASERVER  
INTFACETYPE  
INTERFACE

## OPERATION TYPE

If you define a request model with this attribute you can only install it on CICS TS OS/390, Version 1 Release 3. See *CICS Resource Definition Guide* for more information.

### OMGModule

This attribute is obsolete, but is supported to provide BAS definition support for earlier releases of CICS. If this attribute is present in the request model definition, the following attributes must be blank:

BEANNAME  
CORBASERVER  
INTFACETYPE  
INTERFACE  
OPERATION  
TYPE

If you define a request model with this attribute you can only install it on CICS TS OS/390, Version 1 Release 3. See *CICS Resource Definition Guide* for more information.

### OMGOperation

This attribute is obsolete, but is supported to provide BAS definition support for earlier releases of CICS. If this attribute is present in the request model definition, the following attributes must be blank:

BEANNAME  
CORBASERVER  
INTFACETYPE  
INTERFACE  
OPERATION  
TYPE

If you define a request model with this attribute you can only install it on CICS TS OS/390, Version 1 Release 3. See *CICS Resource Definition Guide* for more information.

### Operation

specifies a name, of up to 255 characters, matching the IDL operation or an IDL representation of the bean method signature. The acceptable characters are A-Z a-z 0-9 \_ and accented alphabetic characters. For information about entering mixed case information, see *CICS Resource Definition Guide*. However, you can use an asterisk as the last (or only) character to specify a generic name. Characters outside this range may give unpredictable results. Case is significant and should match the original Java or IDL source. However, to comply with CORBA, installation of REQUESTMODELS that specify OPERATION with values differing only in case from previously installed definitions, will be rejected.

In general, Java method names are mapped to an equivalent IDL name. However, there are cases where this is not possible, for example:

- Java method names that contain characters which are not permitted in IDL names.
- Overloaded Java method names.
- Java method names that begin with get and set.



Instead, IDL uses a “mangled” form of the Java name, that is, a valid and unambiguous IDL name derived from the Java name. The OPERATION attribute of the REQUESTMODEL must match the mangled name in this case.

For detailed information about how Java names are mapped to IDL names, see the *OMG Java to IDL mapping*, published by the Object Management Group (OMG), and available from [www.omg.org](http://www.omg.org).

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, OPERATION must be blank.

If you specify TYPE as GENERIC, you must specify OPERATION(\*).

#### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

#### Transid

defines the 4-character name of the CICS transaction to be used when a new request processor transaction instance is required to process a method request matching the specification of the REQUESTMODEL.

The transaction definition must have as its initial program a JVM program whose JVMClass is `com.ibm.cics.iiop.RequestProcessor`. It must be installed in all the AORs of the logical EJB server; it need not be installed in listener regions that are not also AORs.

#### Type

specifies the type of REQUESTMODEL:

##### GENERIC

matches both enterprise bean and CORBA requests. If you specify TYPE(GENERIC), you must also specify:

BEANNAME(\*)  
INTERFACE(\*)  
INTFACETYPE(BOTH)  
MODULE(\*)  
OPERATION(\*)

##### CORBA

matches CORBA requests as specified by the CORBA attributes (MODULE and INTERFACE). Only the CORBA attributes and OPERATION attribute can be specified; the EJB attributes (BEANNAME and INTFACETYPE) and CICS TS V1R3 attributes (OMGINTERFACE, OMGMODULE and OMGOPERATION) must be blank.

##### EJB

matches enterprise bean requests as specified by the EJB (BEANNAME and INTFACETYPE). Only the EJB attributes and COMMON attributes (OPERATION) are valid; the CORBA attributes (MODULE and INTERFACE) must be blank.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, TYPE must be blank.

Table 27 on page 262 shows the attributes that are valid for each type:

Table 27. Attributes valid for each value of the TYPE attribute

	TYPE(GENERIC)	TYPE(EJB)	TYPE(CORBA)
<b>BEANNAME</b>	valid	valid	invalid
<b>INTFACETYPE</b>	valid	valid	invalid
<b>MODULE</b>	valid	invalid	valid
<b>INTERFACE</b>	valid	invalid	valid
<b>OPERATION</b>	valid	valid	valid

**User data**

(Optional.) Three 8-character fields provided for any site-specific CICSplex SM data related to the request model. makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0CICSplex SM or leave blank for to assign the first available version id in the range 1 through 15.

## Chapter 44. Session resource definitions

Session definitions describe the nature of logical links between systems that communicate using intersystem communication (ISC) or multiple region operation (MRO).

### Accessing BAS session definitions

To display information about existing session definitions:

**Issue the command:**

SESSDEF [*resdef*]

where *resdef* is the specific or generic name of a session definition. If you omit this parameter, the view, illustrated in Figure 86, includes information about all existing session definitions within the current context.

**Select:**

SESSDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==SESSDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
S0001 1 1/09/97 14:39 1/09/97 14:39 ISC Session
S0001 2 1/09/97 14:48 1/09/97 14:48 ISC Session - Test
S0002 1 1/09/97 15:03 1/09/97 15:03 MRO Session
```

Figure 86. The SESSDEF view

### Working with the SESSDEF view

The topics covered by this section are:

- “Availability” of the SESSDEF view
- “Action commands” for the SESSDEF view
- “Hyperlink fields” on page 264 for the SESSDEF view

#### Availability

Sessions can be defined for all managed CICS systems.

#### Action commands

Table 28 summarizes the action commands you can use with the SESSDEF view.

Table 28. SESSDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a session definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of session definitions, as described on page 29.

Table 28. SESSDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a session definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 87 and Figure 88 on page 265. All of the fields are nonmodifiable.
CREate	CRE	Create a session definition and add it to the data repository, as described on page 264.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a session definition from the data repository, as described on page 33.
n/a	UPD	Update a session definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 87 and Figure 88 on page 265. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the SESSDEF view.

## Defining sessions using BAS

To create a session definition:

1. Issue the create primary (CREate) or line (CRE) action command from the SESSDEF view.
2. Fill in the fields on the first session definition panel (see Figure 87):

```

COMMAND  ===>
Name      ===> S001A      Version ===> 1
Description  ===> Session 1 - System A
RESGROUP  ===>
User Data  ===>

Protocol   ===> APPC      Intercommunication link protocol
                        (APPC, EXCI, LU61, NOTAPPLIC)
Maximum    ===> 0 , 0      Maximum sessions (0-999, blank)
Recv/Send count  ===> ,      Receive, Send counts (1-999, blank)
Recv/Send prfx  ===> ,      Receive, Send prefixes
Recv/Send size  ===> 4096 , 4096 Max Recv, Send VTAM RU size (1-30720,blank)
Modename    ===>          VTAM logmode name
Connection  ===>          Connection name
Autoconnect  ===> NO      Session established (NO, YES, ALL)
NetNameQ    ===>          Name known to remote IMS system

Press ENTER to create SESSDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 87. Creating a session definition - Page 1

3. To add the session definition to the data repository, press Enter. To continue creating a session definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second session definition panel (see Figure 88):

COMMAND

====>

Name

S001A

Version

====> 1

SessName

====>

Session ID

Session priority

====> 0

Session priority (0-255, blank)

Userid

====>

Signon and security userid

Inservice

====> N/A

Session in communication (YES, NO, N/A)

Build Chain

====> YES

Chain assembly required (YES, NO)

Relreq

====> NO

Release logic unit (YES, NO)

Discreq

====> NO

Disconnect request (YES, NO)

Userarealen

====> 0

User area size (0-255), blank)

Ioarea Length

====> 0

Terminal I/O area (0-32767, blank)

NEP class

====> 0

NEP transaction class (0-255, blank)

Transaction

====>

Device initiated transaction

Recov Option

====> SYSDEFAULT

CICS recovery using XRF  
(SYSDEFAULT, CLEARCONV,  
RELEASESESS, UNCONDREL, NONE)

Recov Notify

====> N/A

XRF takeover notify  
(NONE, MESSAGE, TRANSACTION, N/A)

Press ENTER to create SESSDEF.

Enter UP or DOWN to view other screens.

Type END or CANCEL to cancel without creating.

Figure 88. Creating a session definition - Page 2

5. To continue creating a connection definition:
- For all systems other than CICS/MVS 2.1.2 systems, go to step 6 on page 123.
  - For CICS/MVS 2.1.2 systems only, issue the DOWN command.
6. For CICS/MVS 2.1.2 systems only, fill in the fields on the third connection definition panel (see Figure 89):

COMMAND

====>

Name

S001A

Version

====> 1

Operid

====>

Operator identifier

Oper Priority

====> 0

Operator priority code (0-255, blank)

Oper RSL

====>

Session Resource security keys

Oper Security

====>

Device transaction security keys

====>

====>

====>

Press ENTER to create SESSDEF.

Enter UP or DOWN to view other screens.

Type END or CANCEL to cancel without creating.

Figure 89. Creating a session definition - Page 3

7. To add the session definition to the data repository, press Enter.

## Session definition attributes

The session definition attribute descriptions are:

**Autoconnect**

specifies how connections are to be established. What you have to specify for LU6.1 and APPC sessions is discussed below:

#### APPC sessions

For a VTAM-connected system that has Autoconnect set to YES or ALL on the connection definition:

**NO** CICS does not attempt to bind any sessions when the connection is established.

#### **YES or ALL**

A contention-winner session is established (that is, BIND is performed) during CICS initialization, or when communication with VTAM is started using the CEMT SET VTAM OPEN command.

For a VTAM-connected system that has Autoconnect set to NO on the CONNECTION definition:

**ALL** All sessions, not just contention winners, are established when the connection is acquired by issuing CEMT SET CONNECTION(name) ACQUIRED, or when the remote system itself initiates communication.

**NO** CICS does not attempt to bind any sessions when the connection is established.

**YES** Contention-winner sessions are established when the connection is acquired by issuing CEMT SET CONNECTION(sysid) ACQUIRED, or when the remote system itself initiates communication.

#### LU6.1 sessions

**NO** The connection is not established at initialization or CEDA install.

**YES** The connection is established at initialization or CEDA install.

#### Build Chain

specifies whether CICS is to perform chain assembly before passing the input data to the application program.

**NO** Any TIOA received by an application program from this logical unit contains one request unit (RU).

**YES** Any terminal input/output area (TIOA) received by an application program from this logical unit contains a complete chain.

#### Connection

specifies the name of the connection definition that you want to use with this session definition. The name can be up to four characters in length.

#### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

#### Discreq

specifies whether disconnect requests are to be honored. DISCREQ applies to LUTYPE6.1 ISC sessions, but not to MRO sessions where CICS is not dealing with VTAM devices.

#### Inservice

For LU 6.1 ISC sessions on systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, specify YES or **NO** to indicate whether the session can be used for communication. If the definition is not for an LU 6.1 ISC session or will not be used on a CICS/MVS 2.1.2 or CICS/ESA 3.3 system, specify N/A.

#### IOarea Length

specifies the length, in bytes, of the terminal input/output area to be used for processing messages transmitted on the MRO link.

*value1* Value1 specifies the minimum size of a terminal input/output area to be passed to an application program when a RECEIVE command is issued.

*value2* If value2 is not specified, or is less than value1, it defaults to the value of value1.

You can specify value2 as greater than or equal to value1. In this case, when the size of an input message exceeds value1, CICS uses a terminal input/output area (TIOA) value2 bytes long. If the input message size also exceeds value2, the node abnormal condition program sends an exception response to the terminal.

If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

#### **Maximum (APPC only)**

specifies the maximum number of sessions that are to be supported for the modeset. Value1 must be greater than or equal to value2.

1*value1*

The maximum number of sessions in the group. This value can be in the range 1 through 999. The default is 1.

0*value2*

The maximum number of sessions that are to be supported as contention winners. This value can be in the range 0 to 999. The default is 0. Note that this operand has no meaning for a single session connection. (For further information on the effects of the MAXIMUM option, see the *CICS Intercommunication Guide*.)

If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

#### **Modename (APPC only)**

specifies the name that identifies a group of sessions for use on an APPC connection. The name can be up to eight characters in length, and must be the name of a VTAM LOGMODE entry defined to VTAM.

#### **Name**

Specify a 1- to 8-character name for the session definition.

#### **NEP class**

specifies the transaction class for the node error program.

0

This results in a link to the default node error program module.

*value* The transaction class for the node error program module. The value can be in the range 1 through 255.

If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

#### **NetNameQ**

specifies the name by which the remote IMS system knows this particular session. This is used for CICS-IMS sessions.

#### **Operid**

This attribute applies only to systems running CICS/MVS 2.1.2. Specify a 3-character operator ID to be associated with the sessions.

#### **Oper Priority**

This attribute applies only to systems running CICS/MVS 2.1.2. Specify the operator priority to be used in determining task processing priority for each

transaction attached to the sessions, in the range 0 through 255. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Oper RSL**

This attribute applies only to systems running CICS/MVS 2.1.2. Identify the preset resource security keys for the sessions by specifying one or more decimal values in the range 1 through 24. If you do not want to identify any resource security keys, specify 0.

**Oper Security**

This attribute applies only to systems running CICS/MVS 2.1.2. Identify the preset transaction security keys for the device by specifying one or more decimal values in the range 1 through 64.

**Protocol**

specifies the type of protocol that is to be used for an intercommunication link (ISC or MRO).

**APPC (LUTYPE6.2)**

Advanced program-to-program communication (APPC) protocol. Specify this for CICS-CICS ISC.

**EXCI** The external CICS interface. Specify this to indicate that the sessions are for use by a non-CICS client program using the external CICS interface. If you specify EXCI, you must leave SENDCOUNT blank.

**LU61** LUTYPE6.1 protocol.

**NOTAPPLIC**

The session does not represent an intercommunication link.

**Recov Notify**

For systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, specify how a terminal user should be notified of an XRF takeover:

**NONE** No notification is given.

**MESSAGE**

A message is displayed, provided the terminal is defined with ATI(YES) and is capable of displaying a BMS map.

**TRANSACTION**

The transaction specified in the RMTRAN system initialization parameter is initiated, provided the terminal is defined with ATI(YES).

**N/A** The Recov Notify field does not apply to this definition and should not be validated.

**Recov Option**

This option applies to the recovery of sessions in a CICS region running with VTAM persistent sessions, or with XRF.

**Recv/Send count**

Specify the number of MRO, LU type 6.1, or EXCI sessions that usually either receive before sending (Recv) or send before receiving (Send):

**value1**

Recv count:

**blank** These sessions can send only; there are no receive sessions.

**number**

The number of receive sessions on connections that specify



LU61, EXCI, or NOTAPPLIC in the Protocol field of the connection definition (CONNDEF).

CICS uses the number to generate the last two or three characters of the session names. If you are using the default receive prefix (<), or your own 1-character prefix, specify a number in the range 1 through 999. If you specify a 2-character receive prefix, the number is restricted to the range 1 through 99.

#### value2

Send count:

**blank** These sessions can receive only; there are no send sessions.

The Send count field must be blank when the sessions are on an EXCI connection.

#### number

The number of send sessions on connections that specify LU61 or NOTAPPLIC in the Protocol field of the connection definition (CONNDEF).

CICS uses the number to generate the last two or three characters of the session names. If you are using the default send prefix (>), or your own 1-character prefix, specify a number in the range 1 through 999. If you specify a 2-character send prefix, the number is restricted to the range 1 through 99.

#### Recv/Send prfx

Specify a 1- or 2-character prefix that CICS is to use as the first 1 or 2 characters of the receive and send session names (the names of the terminal control table terminal entries (TCTTEs) for the sessions). The prefix you select must not result in any duplicate session or terminal names.

#### value1

Recv prefix:

< For MRO or EXCI sessions you are advised to use < and > as receive and send prefixes to avoid duplicate session names being created. CICS creates the last three characters using A-Z and 1-9. These 3-character identifiers begin with the letters AAA, and continue in ascending sequence until the number of session entries reaches the limit set by the Recv/Send count value. Receive session names are generated **after** the send session names, and they follow in the same sequence.

For example, if the last session name generated for the send sessions is >AAJ, using the send prefix ">", CICS generates the receive session names as <AAK, <AAL, <AAM, and so on. (This method of generating session identifiers is the same as for APPC sessions, except for the initial prefix symbol.)

**prefix** Specify your own 1- or 2-character prefix. A hyphen (-) is not supported for LU 6.1 sessions on the host.

#### value2

Send prefix:

> For MRO or EXCI sessions you are advised to use < and > as receive and send prefixes to avoid duplicate session names being created. CICS creates the last three characters using A-Z

and 1-9. These 3-character identifiers begin with the letters AAA, and continue in ascending sequence until the number of session entries reaches the limit set by the Recv/Send count value. Receive session names are generated **after** the send session names, and they follow in the same sequence.

For example, if the last session name generated for the send sessions is >AAJ, using the send prefix ">", CICS generates the receive session names as <AAK, <AAL, <AAM, and so on. (This method of generating session identifiers is the same as for APPC sessions, except for the initial prefix symbol.)

**prefix** Specify your own 1- or 2-character prefix. A hyphen (-) is not supported for LU 6.1 sessions on the host.

## Notes:

1. If you are creating a SESSDEF for an MRO SYSLINK, you should use "<" and ">" for the receive and send prefixes. If you specify different values for the prefixes you must specify a different SESSDEF for each SYSLINK to avoid duplicate session names being created.

## Recv/Send size

Specify the maximum VTAM request unit (RU) size that these sessions are capable of receiving and sending, in the range 1 through 30720 for LU 6.1 sessions, or 256 through 30720 for APPC sessions. If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

## Relreq

specifies whether CICS is to release the logical unit upon request by another VTAM application program.

## RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

## SessName

specifies the symbolic identification to be used as the local half of a session qualifier pair in a CICS intercommunication parallel session. The name can be up to four characters in length.

## Session priority

specifies the terminal priority. This decimal value (0 through 255) is used in establishing the overall transaction processing priority. (Transaction processing priority is equal to the sum of the terminal priority, transaction priority, and operator priority; this must not exceed 255.) If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

## Transaction

For systems running CICS/MVS 2.1.2, specify the 1- to 4-character ID of the transaction to be initiated from this device.

## Userarealen

Specify the length, in bytes, of the user area for this session, in the range 0 through 255. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

## User data

(Optional.) Three 8-character fields provided for any site-specific data related to the session. CICSplex SM makes no use of this user data.

**Userid**

specifies a user identifier used for sign-on (SEC=YES or MIGRATE) and referred to in security error messages, security violation messages, and the audit trail.

The name can be up to eight characters in length.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**SESSDEF**

## Chapter 45. TCP/IP service resource definitions

TCP definitions define which TCP/IP services are to use internal sockets support. The services that can be defined are IIOF and the CICS Web Interface.

### Accessing BAS TCP/IP service definitions

To display information about existing TCP/IP service definitions:

**Issue the command:**

TCPDEF [*resdef*]

where *resdef* is the specific or generic name of a TCP/IP service definition. If you omit this parameter, the view, illustrated in Figure 90, includes information about all existing TCP/IP service definitions within the current context.

**Select:**

TCPDEF from the ADMRES menu.

```
27FEB2005 14:26:01 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 =TCPDEF=====EYUPLX01=EYUPLX01=27FEB2005==14:26:01====CPSM=====
CMD Name      Ver   Created      Changed      Description
-----
TCPDRV1       1    7/28/98 11:52  7/28/98 11:52  Test TCP/IP service 1
TCPDRV2       1    7/28/98 11:53  7/28/98 11:53  Test TCP/IP service 2
```

Figure 90. The TCPDEF view

### Working with the TCPDEF view

The topics covered by this section are:

- “Availability” of the TCPDEF view
- “Action commands” for the TCPDEF view
- “Hyperlink fields” on page 274 for the TCPDEF view

#### Availability

TCP/IP services can be defined for all managed CICS systems at CICS Transaction Server for OS/390, Version 1 Release 3 and later.

#### Action commands

Table 29 summarizes the action commands you can use with the TCPDEF view.

Table 29. TCPDEF view action commands

Primary command	Line command	Description
ADD <i>resdef</i> version	ADD	Add a TCP/IP service definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of TCP/IP service definitions, as described on page 29.

Table 29. TCPDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a TCP/IP service definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 90 on page 273. All of the fields are nonmodifiable.
CREate	CRE	Create an TCP/IP service definition and add it to the data repository, as described on page 274.
n/a	INS	For systems running CICS Transaction Server for OS/390, Version 1 Release 3 or later, install a TCP/IP service definition in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a TCP/IP service definition from the data repository, as described on page 33.
n/a	UPD	Update a TCP/IP service definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 90. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the TCPDEF view.

---

## Defining TCP/IP services using BAS

To create a TCP/IP service definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TCPDEF view.
2. A Web User Interface view for the TCPIPS managed object (EYUSTARTTCPIPS.TABULAR is the Starter Set supplied default); see *CICSplex SM Web User Interface Guide*.
3. Fill in the fields in the TCP/IP definition panel (see Figure 91 on page 275):

```

----- Create TCP/IP Service Definition for MCPLEX1 ----- Top of data
COMMAND ==>

Name          ==>          Version  ==> 0          More:  +
Description   ==>
RESGROUP     ==>
User Data     ==>

Urm           ==>          Name of user replaceable module
Portnumber    ==> 00000          Port number for this service (1-65535)
Certificate    ==>          HFS pathname of certificate

Status        ==> OPEN          Initial status of service (OPEN, CLOSED)
SSL           ==> NO            Use of SSL (NO, YES, CLIENTAUTH)
Transaction   ==>          Transaction Id to process this service
Backlog       ==> 00001          Requests queued before rejection (0-32767)
TSQprefix     ==>          Prefix for temporary storage queues
IPaddress     ==>          IP address
Socketclose   ==> NO            Socket close (NO, 0-240000)
Authenticate  ==> NO            Authentication (NO,BASIC,CERTIFICATE,
                                AUTOREGISTER,AUTOMATIC,NOTAPPLIC,
                                ASSERTED)

Protocol      ==> NOTAPPLIC      Protocol (HTTP, IIOP, ECI)
DNSGroup      ==>          DNS group
GRPCritical   ==> NOTAPPLIC      Critical Member of DNS Group (YES, NO,
                                NOTAPPLIC)
Attachsec     ==> NOTAPPLIC      Attach-time security (LOCAL, VERIFY,
                                NOTAPPLIC)
Privacy       ==> NOTAPPLIC      Privacy (NOTSUPPORTED, REQUIRED,
                                SUPPORTED, NOTAPPLIC)
Ciphers       ==>          SSL Cipher Suite Codes

Press ENTER to create TCPDEF.
Type END or CANCEL to cancel without creating. Press ENTER to create TCPDEF.
Type END or CANCEL to cancel without creating.

```

Figure 91. Creating a TCP/IP service definition

4. To add the TCP/IP service definition to the data repository, press Enter.

## Installing a BAS TCP/IP service definition

To install a TCP/IP service definition in an active system, issue the INS command.

After installation of a TCPMDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM TCPIPS command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TCIPSERVICE command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE TCIPSERVICE command; see *CICS System Programming Reference*.

## TCP/IP service definition attributes

The TCP/IP service definition attribute descriptions are:

### Attachsec

specifies the level of attach-time security required for TCP/IP connections to CICS Clients.

### LOCAL

specifies that CICS does not require a user ID or password from clients.

**VERIFY**

specifies that incoming attach requests must specify a user identifier and a user password. Specify VERIFY when connecting systems are unidentified and cannot be trusted.

**NOTAPPLIC**

means that a value for PROTOCOL other than ECI has been specified.

Values other than NOTAPPLIC apply only when PROTOCOL(ECI) is specified.

**Authenticate**

specifies the authentication and identification scheme to be used for inbound TCP/IP connections for the HTTP and IIOF protocols. Each protocol supports a different set of authentication schemes. For the ECI protocol, this attribute is invalid.

When PROTOCOL(HTTP) is specified:

**NO**

The client is not required to send authentication or identification information. However, if the client sends a valid certificate that is already registered to the security manager, and associated with a user ID, then that user ID identifies the client.

**BASIC**

HTTP Basic authentication is used to obtain a user ID and password from the client. If an invalid user ID and password are supplied, the process is repeated until valid information is supplied, or until the end user cancels the connection.

When the end user has been successfully authenticated, the user ID supplied identifies the client.

**CERTIFICATE**

SSL client certificate authentication is used to authenticate and identify the client. The client must send a valid certificate which is already registered to the security manager, and associated with a user ID. If a valid certificate is not received, or the certificate is not associated with a user ID, the connection is rejected.

When the end user has been successfully authenticated, the user ID associated with the certificate identifies the client.

**Note:** If you specify AUTHENTICATE(CERTIFICATE), you must also specify SSL(CLIENTAUTH).

**AUTOREGISTER**

SSL client certificate authentication is used to authenticate the client.

- If the client sends a valid certificate that is already registered to the security manager, and associated with a user ID, then that user ID identifies the client.
- If the client sends a valid certificate that is not registered to the security manager, then HTTP Basic authentication is used to obtain a user ID and password from the client. Provided that the password is valid, CICS registers the certificate with the security manager, and associates it with the user ID. The user ID identifies the client.

**Note:** If you specify AUTHENTICATE(CERTIFICATE), you must also specify SSL(CLIENTAUTH).



**AUTOMATIC**

This combines the AUTOREGISTER and BASIC functions.

- If the client sends a certificate that is already registered to the security manager, and associated with a user ID, then that user ID identifies the client.
- If the client sends a certificate that is not registered to the security manager, then HTTP Basic authentication is used to obtain a user ID and password from the client. Provided that the password is valid, CICS registers the certificate with the security manager, and associates it with the user ID. The user ID identifies the client.
- If the client does not send a certificate, then HTTP Basic authentication is used to obtain a user ID and password from the user. When the end user has been successfully authenticated, the user ID supplied identifies the client.

**ASSERTED**

Asserted identity authentication is used.

When PROTOCOL(IIOp) is specified:

**NO**

The client is not required to send authentication or identification information. However, if the client sends a valid certificate that is already registered to the security manager, and associated with a user ID, then that user ID identifies the client.

**CERTIFICATE**

SSL client certificate authentication is used to authenticate and identify the client. The client must send a valid certificate which is already registered to the security manager, and associated with a user ID. If a valid certificate is not received, or the certificate is not associated with a user ID, the connection is rejected.

When the end user has been successfully authenticated, the user ID associated with the certificate identifies the client.

**Note:** If you specify AUTHENTICATE(CERTIFICATE), you must also specify SSL(CLIENTAUTH).

**ASSERTED**

Asserted identity authentication is used

**Note:** For the HTTP protocol, the analyzer program may change the user ID supplied by the authentication process. If the authentication process does not supply a user ID, the analyzer program may supply one; if the analyzer program does not supply one, the default user ID is used.

For the IIOp protocol, the IIOp user-replaceable program may supply a user ID if the authentication process does not supply one; if the user-replaceable program does not supply one, the default user ID is used.

For more information about authentication and identification of HTTP and IIOp clients, see *CICS RACF Security Guide*.

**Backlog**

specifies the number of TCP/IP connections for this service which are queued in TCP/IP before TCP/IP starts to reject incoming client requests.

**Certificate**

specifies the label of an X.509 certificate that is used as a server certificate

during the SSL handshake for the TCP/IP service. If this attribute is omitted, the default certificate defined in the key ring for the CICS region user ID is used.

Certificate labels can be up to 32 bytes long.

The certificate must be stored in a key ring in the external security manager's database. For more information, see *CICS RACF Security Guide*.

This attribute cannot be specified unless SSL(YES) or SSL(CLIENTAUTH) is also specified.

### Ciphers

(Optional) specifies a value up to 28 cipher suites, in the form of hexadecimal pairs. Any hexadecimal can be specified, but currently the only recognized values are 01, 02, 03, 04, 05, 06, 09, 0A, 2F, and 35. Additional values can be added at a later time. No separating characters are necessary between each pair.

The default is blank.

Ciphers is valid only on CICS Transaction Server 3.1 and later systems. More information is provided in the table showing the cipher suites supported by z/OS and CICS, see *CICS RACF Security Guide*.

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### DNS Group

(Optional) Specifies the group name with which CICS will register to OS/390 workload manager, for connection optimization. The value may be up to 18 characters, and any trailing blanks are ignored. This parameter is referred to as group\_name by the TCP/IP DNS documentation and is the name of a cluster of equivalent server applications in a sysplex. It is also the name within the sysplex domain that clients use to access the CICS TCP/IP service.

More than one TCP/IP service may specify the same group name. The register call is made to WLM when the first service with a specified group name is opened. Subsequent services with the same group name do not cause more register calls to be made. The deregister action is dictated by the GRP Critical attribute. It is also possible to explicitly deregister CICS from a group by issuing a master terminal or SPI command.

### GRP Critical

(Optional) Marks the service as a critical member of the DNS group, meaning that this service closing or failing causes a deregister call to be made to WLM for this group name. The default is NO, allowing two or more services in the same group to fail independently and CICS still remains registered to the group. Only when the last service in a group is closed is the deregister call made to WLM, if it has not already been done so explicitly. Multiple services with the same group name can have different GRP Critical settings. The services specifying GRP Critical (NO) can be closed or fail without causing a deregister. If a service with GRP Critical (YES) is closed or fails, the group is deregistered from WLM.

**NO** The group is not critical to the DNS group.

**YES** The group is critical to the DNS group.

### Name

Specify a 1- to 8-character name for the TCP/IP service definition.

**Portnumber**

specifies, in the range 1 through 65535, the decimal number of the port on which CICS is to listen for incoming client requests.

The well-known ports are those from 0 through 1023. It is advisable to use well known port numbers only for those services to which they are normally assigned. The well known ports for services supported by CICS are:

<b>80</b>	HTTP (non-SSL)
<b>443</b>	HTTP with SSL
<b>683</b>	IIOPI (non-SSL)
<b>684</b>	IIOPI with SSL
<b>1435</b>	ECI

You should take care to resolve conflicts with any other servers on the same MVS image that might use the well-known ports.

Port sharing has to be enabled for any port that you want to share across CICS systems within an MVS image. For more information, see *CICS Performance Guide*.

**Privacy**

specifies the level of SSL encryption required for inbound IIOPI connections to this service.

This attribute applies only when PROTOCOL(IIOPI) is specified.

During the SSL handshake, the client and server advertise which cipher suites they support, and, from those they both support, select the suite that offers the most secure level of encryption. For more information about cipher suites, see *CICS RACF Security Guide*.

**REQUIRED**

Encryption must be used. During the SSL handshake, CICS advertises only supported cipher suites that provide encryption.

**SUPPORTED**

Encryption is used if both client and server support it. During the SSL handshake, CICS advertises all supported cipher suites.

**NOTSUPPORTED**

Encryption must not be used. During the SSL handshake, CICS advertises only supported cipher suites that do not provide encryption.

**NOTAPPLIC**

Encryption is not applicable if SSL is not used.

**Protocol**

specifies the application level protocol used on the TCP/IP port.

**ECI** The CICS ECI protocol is used.

**HTTP** HTTP protocol is used. HTTP protocol is handled by CICS Web support.

**IIOPI** IIOPI protocol is used. Specify IIOPI for TCPIP SERVICES that are to accept inbound requests for enterprise beans.

**NOTAPPLIC**

NOTAPPLIC causes CICS to use the default, HTTP, which requires a URM to be specified.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**SocketClose**

specifies if, and for how long, CICS should wait before closing the socket, after issuing a receive for incoming data on that socket.

**No** The socket is left open until data is received, or until it is closed by the client. While the socket is open it is unavailable to other tasks, and its associated CICS task is suspended indefinitely.

**Note:** If you specify `PROTOCOL(EOI)` you must also specify `SOCKETCLOSE(NO)`.

*0-240000*

The period of time (in HHMMSS format) after which CICS is to close the socket. Specifying 000000 closes the socket immediately if no data is available for any `RECEIVES` other than the first one.

**SSL**

specifies whether the TCP/IP service is to use the secure sockets layer (SSL) for encryption and authentication:

**NO** SSL is not to be used.

**YES** An SSL session is to be used; CICS will send a server certificate to the client.

**CLIENTAUTH**

An SSL session is to be used; CICS will send a server certificate to the client, and the client must send a client certificate to CICS.

**Status**

Indicates the initial status of the service after installation. Set it to `OPEN` if CICS is to begin listening for this service after installation. Set to `CLOSE` if CICS is not to listen on behalf of this service after installation.

**Transaction**

specifies the 4-character ID of the CICS transaction attached to process new requests received for this service.

**TSQprefix**

specifies the 6-character prefix of the temporary storage queue used to store inbound data and Web documents created by applications.

**URM**

specifies the name of a user-replaceable program to be invoked by this service. The name you specify depends upon the value of the `PROTOCOL` attribute:

- For the HTTP protocol, specify the name of the analyzer program. See *CICS Internet Guide* for more information.
- For the IIOP protocol, specify the name of the IIOP security user-replaceable program. See *Java Applications in CICS* for more information.

**User data**

Three 8-character fields provided for any site-specific data related to the TCP/IP service. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

## Chapter 46. Transient data queue resource definitions

Transient data queue definitions describe intrapartition, extrapartition, indirect, and remote transient data destinations.

### Accessing BAS transient data queue definitions

To display information about existing transient data queue definitions:

**Issue the command:**

TDQDEF [*resdef*]

where *resdef* is the specific or generic name of a transient data queue definition. If you omit this parameter, the view, illustrated in Figure 92, includes information about all existing transient data queue definitions within the current context.

**Select:**

TDQDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==TDQDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EQEX 1 1/09/97 14:54 1/09/97 14:54 TDQ - Extra
EQID 1 1/09/97 14:59 1/10/97 08:03 TDQ - Indirect
EQIN 1 1/09/97 15:06 1/09/97 15:06 TDQ - Intra
```

Figure 92. The TDQDEF view

### Working with the TDQDEF view

The topics covered by this section are:

- “Availability” of the TDQDEF view
- “Action commands” for the TDQDEF view
- “Hyperlink fields” on page 282 for the TDQDEF view

#### Availability

Transient data queues can be defined for all managed CICS systems.

#### Action commands

Table 30 summarizes the action commands you can use with the TDQDEF view.

Table 30. TDQDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a transient data queue definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of transient data queue definitions, as described on page 29.

Table 30. TDQDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a transient data queue definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 93 on page 283 through Figure 97 on page 285. All of the fields are nonmodifiable.
CREate	CRE	Create a transient data queue definition and add it to the data repository, as described on page 282.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a transient data queue in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a transient data queue definition from the data repository, as described on page 33.
n/a	UPD	Update a transient data queue definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 93 through Figure 97 on page 285. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the TDQDEF view.

---

## Defining transient data queues using BAS

To create a transient data queue definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TDQDEF view.
2. Fill in the fields on the first transient data queue definition panel (see Figure 93 on page 283):

```

COMMAND  ===>
Name      ===> EQEX      Version ===> 1
Description ===> TDQ - Extra
RESGROUP  ===>
User Data  ===>

TYPE      ===> EXTRA      Transient data queue type
                               (EXTRA, INTRA, INDIRECT, REMOTE)

```

Press ENTER to create TDQDEF.  
Enter UP or DOWN to view other screens.  
Type END or CANCEL to cancel without creating.

Figure 93. Creating a transient data queue definition - Page 1

3. To add the transient data queue definition to the data repository, press Enter. To continue creating a transient data queue definition, issue the DOWN command. The panel that is displayed depends upon the type of transient data queue you are defining:
  - If you typed EXTRA in the Type field, go to step 4.
  - If you typed INTRA in the Type field, go to step 5.
  - If you typed INDIRECT in the Type field, go to step 6 on page 284.
  - If you typed REMOTE in the Type field, go to step 7 on page 284.
Otherwise, issue one of the commands available from this panel.
4. To define an extrapartition transient data queue, fill in the fields on the panel (see Figure 94):

```

COMMAND  ===>
Name      EQEX      Version ===> 1

EXTRA PARAMETERS:
Databuffers ===> 1      Number of data buffers (1-255, blank)
Ddname      ===>      Startup JCL DD name
Dsname      ===>      Extrapartition queue data set name
Sysoutclass ===>      Class of SYSOUT data set
Erroroption ===> IGNORE I/O error recovery (IGNORE, SKIP)
Opentime    ===> INITIAL Data set open (INITIAL, DEFERRED)
Rewind      ===> LEAVE  Tape data set disposition (LEAVE, REREAD)
Typefile    ===> INPUT  Data set type (INPUT, OUTPUT, RDBACK)
Recordsize  ===> 1      Record size (1-32767, blank)
Blocksize   ===> 0      Block size (0-32767, blank)
Recordformat ===> UNDEFINED Record Format (FIXED, VARIABLE, UNDEFINED, blank)
Blockformat ===> NOTAPPLIC Block format (BLOCKED, UNBLOCKED, NOTAPPLIC, blank)
Printcontrol ===> N/A    Print control (ASA, MACHINE, N/A, blank)
Disposition ===> SHR     Disposition (SHR, OLD, MOD)

```

Press ENTER to create TDQDEF.  
Enter UP or DOWN to view other screens.  
Enter END or CANCEL to cancel without creating.

Figure 94. Creating an EXTRA transient data queue definition

- To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.
5. To define an intrapartition transient data queue, fill in the fields on the panel (see Figure 95 on page 284):

```

COMMAND  ===>
Name                      EQIN      Version ===> 1

INTRA PARAMETERS:

Atifacility  ===> TERMINAL  Destination type (TERMINAL, FILE, SYSTEM)
Recovstatus  ===> NO        Recovery (NO, PHYSICAL, LOGICAL)
Facilityid   ===>          Sysid/Termid for intrapartition destination
Transid      ===>          Automatically initiated transaction
Triggerlevel ===> 1         Trigger level for TRANSID (0-32767, blank)
Userid       ===>          Userid for security checking
Wait         ===> N/A       Wait for UOW resynchronization (YES, NO, N/A)
Waitaction   ===> N/A       Wait action (QUEUE, REJECT, N/A)

Press ENTER to create TDQDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 95. Creating an INTRA transient data queue definition

To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

6. To define an indirect transient data queue, fill in the fields on the panel (see Figure 96):

```

COMMAND  ===>
Name                      EQID      Version ===> 1

INDIRECT PARAMETERS:

Indirectname ===>          Transient data destination

Press ENTER to create TDQDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 96. Creating an INDIRECT transient data queue definition

To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

7. To define a remote transient data queue, fill in the fields on the panel (see Figure 97 on page 285):



```

COMMAND ==>
Name           EQRM      Version ==> 1

REMOTE PARAMETERS:

Remote Sysid ==>      Connection name to remote system
Remotename  ==>      Remote destination name
Remotelength ==> 1    Remote length (0-32767, blank)

Press ENTER to create TDQDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 97. Creating a REMOTE transient data queue definition

To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

## Installing BAS transient data queue definitions

To install a transient data queue in an active system, issue the INS command.

After installation of a TDQDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM QUEUE command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TDQUEUE command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE TDQUEUE command; see *CICS System Programming Reference*.

## Transient data queue definition attributes

The transient data queue definition attribute descriptions are:

### Atifacility (intrapartition queues only)

specifies the type of destination the queue represents.

**FILE** The transient data queue is to be used as a file of data records that are not associated with a particular terminal or system. ATI does not require a terminal to be available.

### SYSTEM

The transient data queue is to be associated with the specified system identifier. The system must be defined to the local CICS system using an RDO CONNECTION definition.

Specifying Atifacility=System initiates a distributed transaction processing (DTP) session. For more information about DTP considerations in application programming, see the *CICS Application Programming Guide*.

### TERMINAL

The transient data queue is to be associated with the terminal. The terminal must be defined to CICS. If you do not specify TERMINAL, it defaults to the value of FACILITYID. If ATI is used, as specified in the TRANSID and TRIGGERLEVEL attributes, the transaction that is

initiated is associated with the specified terminal, which must be available before the transaction can be initiated.

**Blockformat (extrapartition queues only)**

specifies the block format of the data set. There is no default. If you specify the record format (RECORDFORMAT attribute) as undefined (or allow it to default), you cannot specify anything for the BLOCKFORMAT attribute.

**BLOCKED**

Blocked record format.

**UNBLOCKED**

Unblocked record format.

**NOTAPPLIC**

No block format is defined for this data set.

*blank* The block format will be derived from the associated data set.

**Blocksize (extrapartition queues only)**

specifies the length of the block, in bytes. The block length should be in the range 0 through 32767. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Databuffers (extrapartition queues only)**

specifies the number of buffers to be provided, up to a maximum of 255. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Dname**

specifies a 1-to 8-character value that may refer to a data set defined in the startup JCL.

**Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

**Disposition (extrapartition queues only)**

specifies the disposition of the data set.

**MOD** CICS first assumes that the data set exists. For an existing sequential data set, MOD causes the read/write mechanism to be positioned after the last record in the data set. The read/write mechanism is positioned after the last record each time the data set is opened for output.

**OLD** The data set existed before this job step.

**SHR** The data set existed before this job step and can be read by other concurrent jobs.

**(extrapartition queues only)**

specifies the name of the QSAM data set that is to be used to store records written to this extrapartition queue.

**Erroroption (extrapartition queues only)**

specifies the action to be taken if an I/O error occurs. This can be one of the following:

**IGNORE**

The block that caused the error is accepted.

**SKIP** The block that caused the error is skipped.

**Facilityid (intrapartition queues only)**

specifies a 4-character field that contains either:

- The system identifier for an intrapartition queue that specifies ATIFACILITY(SYSTEM)
- The terminal identifier where ATIFACILITY(TERMINAL) is specified.

If you do not specify anything in the FACILITYID field, it defaults to the name of the queue in each case.

If ATIFACILITY(FILE) is specified, the FACILITYID field must be left blank.

**Indirectname (indirect queues only)**

specifies the name of a transient data queue. The queue can be intrapartition, extrapartition, remote, or indirect.

**Opentime (extrapartition queues only)**

specifies the initial status of the data set. The initial status can be one of the following:

**DEFERRED**

The data set remains closed until you indicate that you want to open it by using the CEMT INQUIRE/SET TDQUEUE command.

**INITIAL**

The data set is to be opened at install time.

**Printcontrol (extrapartition queues only)**

specifies the control characters to be used. There is no default.

**ASA** ASA control characters.

**MACHINE**

Machine control characters.

**N/A** The Printcontrol value does not apply to this definition and should not be validated.

*blank* The control characters will be derived from the associated data set.

**Recordformat (extrapartition queues only)**

specifies the record format of the data set.

**FIXED** Fixed records. If you specify RECORDFormat(Fixed), you must also specify a block format.

**VARIABLE**

Variable records. If you specify RECORDFormat(Variable), you must also specify a block format.

**UNDEFINED**

Record format not defined.

*blank* The record format will be derived from the associated data set.

**Recordsize (extrapartition and remote queues)**

specifies the record length in bytes, in the range 0 through 32767. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Recovstatus (intrapartition queues only)**

specifies the recoverability attributes of the queue in the event of an abnormal termination of either CICS or the transaction that is processing the queue. The recoverability attributes are:

**LOGICAL**

This queue is logically recoverable.

**NO**

This queue is not recoverable.

**PHYSICAL**

This queue is physically recoverable.

**Remotename (remote queues only)**

(Optional.) specifies, if the transient data queue resides on a remote system, the 4-character name by which the queue is known in the system or region on which the queue resides.

**Remotelength (remote queues only)**

(Optional.) specifies the length in bytes, in the range 1 through 32767. The default value is 1. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Remote Sysid**

(Optional.) specifies, if the transient data queue resides on a remote system, the name of the connection that links the target (local) system to the related (remote) system where the transient data queue resides. If this attribute is not supplied, RemoteSystem is derived directly from the CICS system id of the related system, and the connection that links the target system to the related system must have the same name as the CICS system id of the related system.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Rewind (extrapartition queues only)**

specifies the disposition of a tape data set. The disposition can be one of the following:

**LEAVE**

The current tape is positioned at the logical end of the data set.

**REREAD**

The current tape is positioned at the logical start of the data set.

**Sysoutclass (extrapartition queues only)**

Instead of allocating an extrapartition queue to a physical data set, you can allocate it to a system output data set (referred to as SYSOUT).

Use the SYSOUTCLASS attribute to specify the class of the SYSOUT data set.

**A..ZIO..9**

A single alphabetic or numeric character that represents an output class that has been set up on the MVS system on which the CICS job is to run.

*\** This is the default class. SYSOUTCLASS defaults to an asterisk (\*) if you leave the DSNNAME attribute blank and specify OUTPUT for the Typefile field.

*blank* SYSOUTCLASS defaults to a blank character if you leave the DSNNAME attribute blank and specify INPUT or RDBACK for the Typefile attribute.

**Transid (intrapartition queues only)**

specifies the name of the transaction that is to be automatically initiated when the trigger level is reached.

**Triggerlevel (intrapartition queues only)**

specifies the number of records to be accumulated before a task is automatically initiated to process them. (This number is known as the trigger level.)

If you specify the TRANSID attribute, TRIGGERLEVEL defaults to 1. Specify a trigger level of 0 if you want to disable ATI processing. If you do not specify a transaction id, the trigger level is ignored. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

### Type

specifies the following types of transient data queue:

#### EXTRA

A queue that is outside the CICS region is allocated to CICS.

#### INDIRECT

An indirect queue is a queue that does not point to an actual data set, but to another queue. An indirect queue can be extrapartition, intrapartition, remote, or even another indirect queue.

#### INTRA

A queue for data that is to be stored temporarily.

#### REMOTE

A queue that is located on a remote system.

### Typefile

specifies the type of data set the queue is to be associated with.

**INPUT** An input data set.

#### OUTPUT

An output data set.

#### RDBACK

An input data set that is to be read backward.

**Note:** This is appropriate only for data sets that have been defined on magnetic tape.

### Userid (intrapartition queues only)

specifies the userid you want CICS to use for security checking when verifying the trigger-level transaction specified in the TRANSID field.

### Wait (intrapartition queues only)

specifies whether an in-doubt unit of work (UOW) that has modified a logically recoverable queue should wait for resynchronization with its coordinator to determine whether to commit or back out the changes.

**NO** The UOW is not to wait. Any changes made to recoverable resources are to be backed out or committed, as specified by the ACTION attribute on the TRANSACTION resource definition.

**YES** The UOW is to wait, and any action required while waiting is determined by the WAITACTION attribute.

**N/A** The Wait field does not apply to this definition.

### Waitaction (intrapartition queues only)

specifies the action CICS is to take for an in-doubt unit of work (UOW) if the definition for this queue specifies WAIT(YES). The possible actions are:

#### QUEUE

The UOW is in-doubt and waiting; any locks held by the UOW for this queue remain active until the final state of the UOW is known. This means that tasks are suspended rather than receiving the LOCKED response. When the final state of the UOW is known, any changes that

## TDQDEF

it has made are committed or backed out. Until then, any further requests of the following types that need one of the active locks must wait:

- READQ, if the in-doubt UOW had issued READQ or DELETEDQ requests.
- WRITEQ, if the in-doubt UOW had issued WRITEQ or DELETEDQ requests.
- DELETEDQ, if the in-doubt UOW had issued READQ, WRITEQ or DELETEDQ requests.

### REJECT

The UOW is in-doubt and is waiting. Any lock held by the UOW for this queue is retained until the final state of the UOW is known. When the final state is known, any changes the UOW has made are committed or backed out. Until then, any further request that needs one of the retained locks is rejected, and a LOCKED response is returned. WAITACTION=REJECT causes LOCKED to be raised in exactly the same circumstances as those in which QUEUE causes a transaction to wait.

### N/A

The Waitaction field does not apply to this definition and should not be validated.

## Chapter 47. Terminal resource definitions

Terminal definitions describe the unique characteristics of the terminal devices (including visual display units, printers, and operating system consoles) with which CICS communicates.

### Accessing BAS terminal definitions

To display information about existing terminal definitions:

**Issue the command:**

TERMDEF [*resdef*]

where *resdef* is the specific or generic name of a terminal definition. If you omit this parameter, the view, illustrated in Figure 98, includes information about all existing terminal definitions within the current context.

**Select:**

TERMDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 ==TERMDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name  Ver      Created          Changed          Description
-----
E01X     1    1/09/97 15:11    1/09/97 15:11
E01Y     1    1/09/97 15:14    1/09/97 15:14
E01Z     1    1/09/97 15:19    1/09/97 15:19
```

Figure 98. The TERMDEF view

### Working with the TERMDEF view

The topics covered by this section are:

- “Hyperlink fields” on page 300 of the TERMDEF view
- “Action commands” for the TERMDEF view
- “Hyperlink fields” on page 292 for the TERMDEF view

### Availability

Terminals can be defined for all managed CICS systems.

### Action commands

Table 31 summarizes the action commands you can use with the TERMDEF view.

Table 31. TERMDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a terminal definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of terminal definitions, as described on page 29.

## TERMDEF

Table 31. TERMDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a terminal definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 99 on page 293. All of the fields are nonmodifiable.
CREate	CRE	Create a terminal definition and add it to the data repository, as described on page 292.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a terminal in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove <i>resdef version</i>	REM	Remove a terminal definition from the data repository, as described on page 33.
n/a	UPD	Update a terminal definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 99. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the TERMDEF view.

---

## Defining terminals using BAS

To create a terminal definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TERMDEF view.
2. Fill in the fields on the terminal definition panels (The number of panels displayed depends on the characteristics of your terminal; Figure 99 on page 293 shows the terminal definition fields, for convenience in one list):



```

COMMAND ==>
Name      ==> E01X      Version ==> 1
Description ==>
RESGROUP  ==>
User Data

Autoinsmodel ==> NO      Model for autoinstall (NO, YES, ONLY)
Autoinsname ==>          Name of autoinstall control program
Typeterm    ==>          Definition associated with this terminal
Console     ==>          System Console number (NO, 0-250, blank)
ConsoleName ==>          System Console name
NetName     ==>          VTAM network name
Modename    ==>          VTAM logmode name
Printer     ==>          Primary 3270 printer
Printercopy ==> NO       Use printer for hardware copy (NO, YES)
Altprinter  ==>          Alternative printer name
Altprintcopy ==> NO       Printer used for hardware copy (NO, YES)
Pool        ==>          Name for 3600 or 3650 pipeline terminal
Tasklimit   ==>          Number of concurrent tasks (NO, 1-32767, blank)
Userid      ==>          Userid used for security
Natlang     ==>          Display language for NLS-enabled terminals
Transaction ==>          Initiated when no active tasks
Termpriority ==> 0       Terminal priority (0-255, blank)
Inservice   ==> YES      Terminal status (YES, NO)
Security name ==>          Security name of remote system
BindPassword ==> ..... Bind security password
Bindsecurity ==> NO       Use ESM for bind-time security (NO, YES)
Usedfltuser ==> N/A       Use default user (YES, NO, N/A)
Attachsec   ==> LOCAL     Security (LOCAL, IDENTIFY, VERIFY,
                          PERSISTENT, MIXIDPE)

Remotename  ==>          Name of terminal in owning system
Remote Sysid ==>          SYSIDENT of Remote System
Remote Sysnet ==>          Network name

CICS/MVS 2.1.2 only fields
Operid      ==>          Operator identifier
Oper Priority ==> 0       Operator priority code (0-255, blank)
Oper RSL     ==>          Terminal Resource security keys

Oper Security ==>          Device transaction security keys
==>
==>
==>

Press ENTER to create TERMDEF.

Type END or CANCEL to cancel without creating.

```

Figure 99. Creating a terminal definition

3. To add the terminal definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS terminal definitions

To install a terminal into an active system, issue the INS command.

After installation of a TERMDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM TERMNL command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TERMINAL command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE TERMINAL command; see *CICS System Programming Reference*.

---

## Terminal definition attributes

The terminal definition attribute descriptions are:

### **Altprintcopy**

specifies whether the hardware COPY feature is to be used to satisfy a print request on the printer named in the ALTPRINTER attribute. For further details, see the PRINTERCOPY attribute.

**NO** CICS should use the hardware COPY feature.

**YES** CICS should not use the hardware COPY feature.

### **Altprinter**

specifies the name of a 3270 printer to be used, if the printer named in the PRINTER attribute of this terminal definition is unavailable. The name may be up to four characters in length. For further details, see the PRINTER attribute. If you specify an ALTPRINTER without specifying a PRINTER, ALTPRINTER is ignored.

### **ATI Status**

Specify whether or not the terminal is available for use by transactions that are automatically initiated from within CICS.

**YES** The terminal is available for use by transactions that are automatically initiated from within CICS.

**NO** The terminal is not available for use by transactions that are automatically initiated from within CICS.

### **Attachsec (APPC only)**

specifies the level of attach time user security required for the connection.

#### **LOCAL**

The authority of the user is taken to be that of the link itself, and you rely on link security alone to protect your resource.

#### **IDENTIFY**

Incoming attach requests must specify a user identifier. Specify IDENTIFY when the connecting terminal has a security manager.

#### **MIXIDPE**

A connection is able to support attaches using either or both of the IDENTIFY and PERSISTENT security types. The security type used depends on the incoming attach.

#### **PERSISTENT**

This involves a user sign-on to a remote system that persists over multiple conversations until the user signs off from the remote system. In this way, the user's ID and password are passed only on the first (sign-on) attach. Subsequent attach requests require only the user's ID.

#### **VERIFY**

Incoming attach requests must specify a user identifier and a user password. Specify VERIFY when the connecting terminal has no security manager and therefore requires verification.

### **Autoinstall**

specifies whether this terminal definition can be used as a model terminal definition for autoinstall.

**NO** This definition is not used as a model for autoinstall. It is used only as a definition for a specific device that is not autoinstalled.

**ONLY** This definition is used only as a model for autoinstall. It is not used as a definition for a specific device.

**YES** This definition is used for a specific device that is not autoinstalled. The definition is also used as a model for automatic installation.

#### **Autoinsname**

specifies the name by which this model definition is known in the autoinstall control program. The name can be up to eight characters in length.

You need specify this only if AUTINSTMODEL is YES or ONLY.

#### **BindPassword (APPC only)**

specifies, for APPC links on systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, a password of up to 16 hexadecimal characters (0-9, A-F).

The password does not appear while you are typing it and it is not displayed on the update or browse panel. If you specify a password, the BindPassword field name appears highlighted on the update and browse panels to indicate a password exists; the field itself contains blanks. You can use the update panel to change an existing password or add a new password.

#### **Bindsecurity (APPC only)**

specifies whether an external security manager (ESM) is being used for bind-time security.

**NO** No external bind-time security is required.

**YES** If security is active and the XAPPC system initialization parameter is set to YES, an ESM is called.

#### **Console**

If the CICS system is running under a release of MVS earlier than MVS SP 4.1, indicate whether the terminal is a console device:

**NO** The terminal is not a console device.

#### **number**

A number in the range 01 through 250 (but not 128) that identifies an existing console. This number must match the identification numbers assigned to consoles according to their sequence in the CONSOLnn member of MVS SYS1.PARMLIB.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

#### **ConsoleName**

You can use this attribute only if the CICS system is running under MVS SP 4.1 or later. The length of CONSNAME must be 2–8 characters and must begin with an alphabetic character or one of #, @, or \$. It uniquely identifies the console device within a CICS region, regardless of the MVS image to which it is connected; that is, you cannot install two console definitions with the same CONSNAME. The CONSNAME corresponds to the name defined for the console in the MVS SYS1.PARMLIB member, CONSOLnn.

#### **Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

specifies the status of the terminal that is being defined.

**YES** Transactions may be initiated and messages may automatically be sent to the terminal.

**NO** The terminal can neither receive messages nor transmit input.

### **Model**

Specify whether or not this terminal is a model.

**YES** This terminal definition is a model.

**NO** This terminal is not a model.

### **Modename (APPC single session terminals only)**

specifies the name that is passed to VTAM as the LOGMODE name.

### **Name**

Specify a 1- to 4-character ID for the terminal definition.

### **Natlang**

specifies the language in which all NLS-enabled messages are displayed for this terminal.

Use only one character, which can be A-Z 1-9.

**blank** If you leave this blank and do not supply a value, CICS uses the system default as specified in the system initialization table (SIT).

**E** English

**K** Kanji

specifies the network name that identifies the terminal to ACF/VTAM.

If you do not specify a name, the NETNAME defaults to the TERMINAL name.

### **Operid**

Specify a 3-character operator ID to be associated with the terminal.

### **Oper Priority**

Specify the operator priority to be used in determining task processing priority for each transaction attached to the terminal, in the range 0 through 255. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

### **Oper RSL**

Identify the preset resource security keys for the terminal by specifying one or more decimal values in the range 1 through 24. If you do not want to identify any resource security keys, specify 0.

### **Oper Security**

Identify the preset transaction security keys for the device by specifying one or more decimal values in the range 1 through 64.

### **Pool**

specifies the pool name for a 3600 or 3650 pipeline terminal pooled with other pipeline terminals.

### **Printer**

specifies the name of the primary 3270 printer to be used to respond to an ISSUE PRINT command, or a PRINT request from an operator pressing a program access (PA) key. The name may be up to four characters in length.

### **Printercopy**

specifies whether the hardware COPY feature is to be used to satisfy a print request on the printer named in the PRINTER attribute of this terminal definition.

### **Remotename**

specifies the name by which the terminal is known in the system or region that owns the terminal. The name can be up to four characters in length.

**Remote Sysnet**

specifies the network name (APPLID) of the region that owns the terminal.

**Remote Sysid**

specifies the name that identifies the intercommunication link to the system that owns the terminal. The name can be up to 4 characters in length.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Security name**

specifies the security name of the remote system.

**Tasklimit**

specifies the number of concurrent tasks allowed to run in a pipeline session or in a pool of pipeline sessions.

**NO** No concurrent tasks are allowed.

**number**

The number of concurrent tasks allowed to run, in the range 1 through 32767.

**Termpriority**

specifies the terminal priority. This decimal value (0 through 255) is used in establishing the overall transaction processing priority. (Transaction processing priority is equal to the sum of the terminal priority, transaction priority, and operator priority, not exceeding 255.) If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Transaction**

specifies a 1-to 4-character name of the transaction that is to be initiated each time input is received from the terminal when there is no active task.

specifies the name of the TYPETERM definition to be associated with this TERMINAL definition. The name can be up to eight characters in length.

**Usedfltuser (APPC only)**

Indicate whether the terminal should use the default user ID specified for a CICS system:

**N/A** The Usedfltuser value does not apply to this definition and should not be validated by CICSplex SM.

**NO** Do not use the default user ID.

**YES** Use the default user ID specified on the DFLTUSER SIT parameter for the CICS system.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the terminal. CICSplex SM makes no use of this user data.

**Userid**

specifies a user identifier used for sign-on and referred to in security error messages, security violation messages, and the audit trail. It must be a valid userid defined to the security manager.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.



## Chapter 48. Transaction resource definitions

Transaction definitions describe how transactions are to run in a CICS system.

### Accessing BAS transaction definitions

To display information about existing transaction definitions:

**Issue the command:**

TRANDEF [*resdef*]

where *resdef* is the specific or generic name of a transaction definition. If you omit this parameter, the view, illustrated in Figure 100, includes information about all existing transaction definitions within the current context.

**Select:**

TRANDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==TRANDEF=====EYUPLX01=EYUPLX01==27FEB2005==11:30:30=CPSM=====4==
CMD Name Ver Created Changed Description
-----
ETVP 1 1/17/97 15:21 1/17/97 15:21 SSET - Workload IVP Def
ETVP 2 1/18/97 09:12 1/18/97 09:12 SSET - Workload IVP Def
ET01 1 1/09/97 15:28 1/09/97 15:28 SSET - Definition
ET02 1 1/09/97 15:51 1/09/97 15:51 SSET - Definition
```

Figure 100. The TRANDEF view

### Working with the TRANDEF view

The topics covered by this section are:

- “Availability” of the TRANDEF view
- “Action commands” for the TRANDEF view
- “Hyperlink fields” on page 300 for the TRANDEF view

#### Availability

Transactions can be defined for all managed CICS systems.

#### Action commands

Table 32 summarizes the action commands you can use with the TRANDEF view.

Table 32. TRANDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a transaction definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of transaction definitions, as described on page 29.

## TRANDEF

Table 32. TRANDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a transaction definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 101 on page 301 through Figure 103 on page 302. All of the fields are nonmodifiable.
CREate	CRE	Create a transaction definition and add it to the data repository, as described on page 300.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a transaction in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a transaction definition from the data repository, as described on page 33.
n/a	UPD	Update a transaction definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 101 through Figure 103 on page 302. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the TRANDEF view.

---

## Defining transactions using BAS

To reate a transaction definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TRANDEF view.
2. Fill in the fields on the first transaciton definition panel (see Figure 101 on page 301):



```

COMMAND ==>
Name      ==>          Version ==> 0
Description ==>
RESGROUP  ==>
User Data  ==>

Program    ==>          Name program to process transaction
Twasize    ==> 0         Transaction work area size (0-32767, blank)
Profile    ==> DFHCICST  Profile definition name
Partitionset ==>        Application partition set (name, KEEP, OWN)
Status     ==> ENABLED   Transaction status (ENABLED, DISABLED)
Taskdataloc ==> BELOW    Task storage location (BELOW, ANY)
Taskdatakey ==> USER    Task storage key (USER, CICS)
Storageclear ==> NO      Clear task life-time storage (YES, NO)
Runaway    ==> SYSTEM    Max tasktime (SYSTEM, 0-2700000, blank)
Shutdown   ==> DISABLED  Status during shutdown (DISABLED, ENABLED)
Isolate    ==> YES       Isolate user storage (YES, NO)

Press ENTER to create TRANDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 101. Creating a transaction definition - Page 1

3. To add the transaction definition to the data repository, press Enter. To continue creating a transaction definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
4. Fill in the fields on the second transaction definition panel (see Figure 102):

```

COMMAND ==>
Name      ==>          ETVP          Version ==> 0

Dynamic    ==> NO         Dynamic route to remote region (NO, YES)
Remotename ==>           Transaction name in remote system
Remote Sysid ==>         Connection name to remote system
Trprof     ==> DFHCICSS   Transaction routing profile name
Localq     ==> N/A        Queuing on local system (NO, YES, N/A)
Priority    ==> 1         Transaction priority (0-255, blank)
Tranclass  ==> DFHTCL00   Transaction class (DFHTCL00, name)
Alias      ==>           Alias name for transaction
Taskreq    ==>           Transactions initiation
Xtranid    ==>           Alternate name for initiating transaction
Ressec     ==> NO        Resource security checking (NO, YES)
Cmdsec     ==> NO        Sec checking for sys prog cmds (NO, YES)
Action     ==> BACKOUT    Recovery action (BACKOUT, COMMIT)
Wait       ==> YES       In-doubt unit of work wait (YES, NO)
Waittime   ==> 0 , 0 , 0 In-doubt unit of work wait time (blank,
                        DD (0-93), HH (0-23), MM (0-59))

Press ENTER to create TRANDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 102. Creating a transaction definition - Page 2

5. To add the transaction definition to the data repository, press Enter. To continue creating a transaction definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
6. Fill in the fields on the third transaction definition panel (see Figure 103 on page 302):

```

COMMAND ==>
Name          ETVP      Version ==> 0

Dtimeout      ==> NO      Apply deadlock time-out (NO, 1-6800, blank)
Indoubt       ==> BACKOUT Abend action (BACKOUT, COMMIT, WAIT)
Restart       ==> NO      Transaction restart facility (NO, YES)
Spurge        ==> NO      System purgeable (NO, YES)
Tpurge        ==> NO      Purged for terminal error (NO, YES)
Dump          ==> YES     Produce transaction dump (YES, NO)
Trace         ==> YES     Trace transaction activity (YES, NO)
Confdata      ==> NO      User data trace suppression (YES, NO)
TPname        ==>        Transaction name for APPC partner
              ==>
              ==>

XTPname              Alternative TPname
              ==>
              ==>
              ==>
              ==>

Press ENTER to create TRANDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 103. Creating a transaction definition - Page 3

7. To add the transaction definition to the data repository, press Enter. To continue creating a transaction definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
8. Fill in the fields on the fourth transaction definition panel (see Figure 104):

```

COMMAND ==>
Name          ETVP      Version ==> 0

Brexit        ==>        Name of bridge exit

Tclass        ==> NO      Task class (NO, 1-10, blank)
PrimedSize    ==> 0        Primed storage allocation size (0-65520, blank)
Extsec        ==> NO      External security manager used (NO, YES, N/A)
Transec       ==> 1        Transaction security value (1-64, blank)
Rsl           ==> 0        Resource security value (0-24, PUBLIC, blank)
Routable      ==> NO      Routable (NO, YES)
OTSTimeout    ==> NO      OTS Transaction timeout (NO, 0-240000, HHMMSS)

Press ENTER to create TRANDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 104. Creating a transaction definition - Page 4

9. To add the transaction definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

## Installing BAS transaction definitions

To install a transaction in an active system, issue the INS command.

After installation of a TRANDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM TRAN command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TRANSACTION command; see *CICS Supplied Transactions*.

- The EXEC CICS INQUIRE TRANSACTION command; see *CICS System Programming Reference*.

---

## Transaction definition attributes

The transaction definition attribute descriptions are:

### Action

specifies the action to be taken when a CICS region fails, or loses connectivity with its coordinator, during two-phase commit processing after the unit of work has entered the in-doubt period. The action depends on the WAIT attribute. If WAIT specifies YES, ACTION has no effect unless the WAITTIME expires before recovery from the failure.

If WAIT specifies NO, the action taken is one of the following:

### BACKOUT

All changes made to recoverable resources are backed out, and the resources are returned to the state they were in before the start of the UOW.

### COMMIT

All changes made to recoverable resources are committed, and the UOW is marked as completed.

### Alias

allows you to specify an alias transaction name for this transaction. The name may be up to four characters in length.

### Brexit

This parameter is a name which may be up to 8 characters in length. If you specify a value for Brexit then you must not also specify a value for Remotename or Remotesystem. You also must not specify Dynamic(YES) or Restart(YES).

CICS for CICS Transaction Server Release 2 uses Brexit in a different way to the way in which CICS in subsequent releases uses Brexit. For CICS Transaction Server Release 2, this is an optional parameter that defines the name of the bridge exit associated with this bridge transaction. The presence of a Brexit value identifies the transaction as a bridge transaction. Brexit should not be specified for a user transaction.

For CICS Transaction Server for z/OS, Version 3 Release 1 and subsequent releases, this is an optional parameter that defines the name of the default bridge exit to be associated with this transaction, if it is started in the 3270 bridge environment with a START BREXIT command, and BREXIT specifies no name. These differences mean that transaction definitions that include the Brexit keyword are slightly different depending upon whether you intend to install the transaction definition into a CICS system that runs at CICS Transaction Server Release 2 or into a CICS system at a subsequent release. The difference affects the way in which the Program keyword is specified.

If you intend to install your transaction definition into a CICS system running CICS Transaction Server Release 2, you must not specify the Program keyword. If you intend to install your transaction definition into a CICS system running a higher level of the CICS Transaction Server, you must specify the Program keyword.

### Cmdesc

specifies whether security checking is to be applied on system programming

commands. For programming information on the system programming commands, see the *CICS System Programming Reference*.

- NO** No check is made. The commands are always executed.
- YES** A call is made to the external security manager (ESM). CICS either authorizes or prevents access. If the ESM cannot identify the resource or resource type, access is prevented.

#### **Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

#### **Dtimeout**

specifies whether deadlock time-out is to be applied to the task. If the execution of the task gets suspended (for example, through lack of storage), a purge of the task is initiated if the task stays suspended for longer than the Dtimeout value.

#### **Confddata**

specifies whether CICS is to suppress user data from CICS trace entries when the CONFDATA system initialization parameter specifies HIDE TC.

#### **Dump**

specifies whether a call is to be made to the dump domain to produce a transaction dump if the transaction terminates abnormally.

- YES** CICS calls the dump domain to produce a transaction dump.
- NO** No call is made to the dump domain, suppressing any potential transaction dump.

#### **Dynamic**

specifies whether the transaction can be dynamically routed to a remote region, using the CICS dynamic transaction routing facility.

- NO** Creates a local or remote definition according to the REMOTESYSTEM attribute.
- YES** Allows the dynamic transaction routing program to determine the local or remote status dynamically at invocation time. For programming information about the dynamic transaction routing program, see the *CICS Customization Guide*.

#### **Extsec**

For systems running CICS/MVS 2.1.2, specify YES or NO to indicate whether an external security manager (ESM) is to be used for transaction or resource security checking. If the Extsec value does not apply to this definition, specify N/A.

#### **Indoubt**

For systems running a version of CICS prior to CICS TS for OS/390, specify the action required if the transaction is using intercommunication and abends at a critical time during syncpoint or abend processing:

#### **BACKOUT**

The effects of the transaction are backed out.

#### **COMMIT**

The effects of the transaction are committed.

- WAIT** Changes to recoverable temporary storage are locked until the session is recovered. The resources are then committed or backed out in step with the remote system.

**Isolate**

specifies whether CICS is to isolate the transaction's user-key task-lifetime storage to provide transaction-to-transaction protection. (See the TASKDATAKEY attribute for a description of user-key storage.) Isolation means that the user-key task-lifetime storage is protected from both reading and writing by the user-key programs of other transactions—that is, from programs defined with EXECKEY(USER).

**Notes:**

1. The ISOLATE attribute does not provide any protection against application programs that execute in CICS key—that is, from programs defined with EXECKEY(CICS).
2. VSAM nonshared resources (NSR) are not supported for transactions that use transaction isolation. You should specify ISOLATE(NO) when you define transactions that access VSAM files using NSR.

**YES** The transaction's user-key task-lifetime storage is isolated from the user-key programs of all other transactions—that is, from programs defined with EXECKEY(USER), but not from programs defined with EXECKEY(CICS).

Also, the user-key task-lifetime storage of **all** other transactions is protected **from** the user-key programs of transactions defined with ISOLATE(YES).

**NO** If you specify ISOLATE(NO), the transaction's task-lifetime storage is isolated from the user-key programs of those transactions defined with ISOLATE(YES). The transaction's storage is not, however, isolated from user-key programs of other transactions that also specify ISOLATE(NO) because, with this option, the transactions are all allocated to the common subspace.

Note also that the user-key task-lifetime storage of all transactions defined with ISOLATE(YES) is protected **from** the user-key programs of transactions defined with ISOLATE(NO).

Specify ISOLATE(NO) for those transactions that share any part of their user-key task-lifetime storage.

**Localq**

specifies whether queuing on the local system is to be performed.

**NO** No local queuing is to be performed.

**YES** Local queuing can be attempted for an EXEC START NOCHECK request when the system is not available and the system name is valid.

**N/A** The Localq attribute does not apply to this definition.

**Name**

Specify a 1- to 4-character ID for the transaction definition.

**OTSTimeout**

specifies, in hours, minutes, and seconds, the length of time for which an Object Transaction Service (OTS) transaction, created in an enterprise beans environment and executing as a task under this CICS transaction, is allowed to execute before the initiator of the OTS transaction must take a syncpoint or roll back the transaction. If the specified period expires, CICS purges the task.

The initiator of the OTS transaction may be:

- The client of the enterprise bean.

- The EJB container. (The container issues a syncpoint at the end of the bean method.)
- A session bean that manages its own OTS transactions.

Methods of session beans that manage their own OTS transactions can override the default timeout value by using the `setTransactionTimeout` method of the `javax.Transaction.UserTransaction` interface.

**NO** OTS transactions will not time out. This is the default.

*1-240000*

The period of time (in HHMMSS format) before the task is purged. The maximum period is 24 hours (240000).

## **Partitionset**

specifies the name of the partition set that is to be the default application partition set. The name can be up to eight characters in length.

## **PrimedSize**

For systems running CICS/MVS 2.1.2, identify the primed storage allocation size in bytes:

**0** CICS will handle storage for the control blocks.

**value** A storage allocation, in the range 1 through 65520.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

## **Priority**

specifies the transaction priority. This 1-to 3-digit decimal value from 0 to 255 is used in establishing the overall transaction processing priority. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

## **Profile**

is the name of the PROFILE definition that specifies the processing options used in conjunction with the terminal that initiated the transaction. The default is DFHCICST.

The name may be up to 8 characters in length.

## **Program**

specifies the name of the program to which CICS gives control to process this transaction. The name can be up to eight characters in length.

If this transaction definition is for use on a remote program link request, the program name you specify in this attribute must be the name of the CICS mirror program, DFHMIRS.

## **Remotename**

specifies the name of this transaction as it is known in a remote system, if it is to be executed in a remote system or region using intersystem communication. The remote system can be another CICS region or an IMS system. REMOTENAME can be 1 through 4 characters in length if the REMOTESYSTEM attribute specifies another CICS region, or 1 through 8 characters in length if REMOTESYSTEM specifies an IMS system.

If you specify a remote name, CICSplex SM uses that name when assigning the transaction to a related system. If you specify a remote system but not a remote name, the local name (that is, the name of this transaction definition) is used in both the target and related systems.

**Note:** If you specify a value for Brexit than you must not also specify a value for Remotename.

#### Remote Sysid

(Optional.) specify the name of the connection that links the target system to the related system where the transaction resides. If this parameter is not supplied, the connection name is derived directly from the CICS systsem id of the related system.

The name may be up to 4 characters in length.

CICSplex SM uses this system ID only if the transaction is part of a resource group that is directly associated with a resource description (via RESINDSC). If the transaction is being assigned by a resource assignmnet (RASGNDEF), CICSplex SM uses the actual CICS system ID of the related system.

**Note:** One, and only one, of the fields Program, Remote Sysid, and Brexit must be specified.

#### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

#### Ressec

specifies whether resource security checking is to be used for resources accessed by this transaction.

**NO** All resources are available to any user who has the authority to use this transaction.

**YES** An external security manager is used.

#### Restart

specifies whether the transaction restart facility is to be used to restart those tasks that terminate abnormally and are subsequently backed out by the dynamic transaction backout facility.

#### Routable

specifies whether, if the transaction is the subject of an eligible EXEC CICS START command, it will be routed using the enhanced routing method.

**NO** If the transaction is the subject of a START command, it will be routed using the “traditional” method.

The transaction should not be dynamically routed.

**YES** If the transaction is the subject of an eligible START command, it will be routed using the enhanced method.

The transaction should be dynamically routed.

If you specify ROUTABLE(YES), you must not also specify LOCALQ(YES).

For details of the enhanced and “traditional” methods of routing transactions invoked by EXEC CICS START commands, see the *CICS Intercommunication Guide*.

The RSL attribute is not valid in CICS Transaction Server for z/OS. See the *CICS Resource Definition Guide* for information.

#### Runaway

The amount of time, in milliseconds, for which any task running under this



transaction definition can have control of the processor before it is assumed to be in a runaway condition (logical loop). When this interval expires, CICS can abnormally terminate the task.

## **SYSTEM**

CICS is to use the ICVR system initialization parameter value as the runaway time limit for this transaction.

**0** There is no limit and no runaway task detection is required for the transaction.

## **0-2700000**

The runaway time limit in the range 0 through 2700000.

If this field is blank CICSplex SM uses the default value for your CICS environment if there is one.

## **Shutdown**

applies to transactions associated with a terminal, and indicates whether the transaction can be run during CICS shutdown. This supplements the XLT option on EXEC CICS PERFORM SHUTDOWN. For a transaction to be attached during shutdown, it must either be defined as SHUTDOWN(ENABLED) or be named in the XLT specified in the EXEC CICS SHUTDOWN command.

## **DISABLED**

The transaction is disabled from running during CICS shutdown.

## **ENABLED**

The transaction is enabled to run during CICS shutdown.

## **Spurge**

specifies whether the transaction is initially “system purgeable” or not.

SPURGE=NO prevents a transaction being purged by the deadlock time-out (DTIMOUT) facility, an EXEC CICS ... PURGE command, TWAOC (Cancel Task) being set in the node error program (NEP), or a CEMT SET ... PURGE command.

SPURGE=YES allows such purges to go ahead as far as the user is concerned. CICS may, however, prevent the purge if it is not safe to allow a purge at the point the transaction has reached.

Note that SPURGE=NO does not prevent a transaction being purged by the read time-out (RTIMOUT) facility, an EXEC CICS SET ... FORCEPURGE command, or a CEMT SET TRANSACTION(tranid) FORCEPURGE command. SPURGE determines only the initial value, which can be changed by the transaction while it is running.

**NO** The transaction is not initially system purgeable.

**YES** The transaction is initially system purgeable.

## **Status**

specifies the transaction status.

## **ENABLED**

Allows the transaction to be executed normally.

## **DISABLED**

Prevents the transaction being executed.

## **Storageclear**

specifies whether task-lifetime storage for this transaction is to be cleared on



release. This can be used to prevent other tasks accidentally viewing any confidential or sensitive data that was being stored by this transaction in task lifetime storage.

### **Taskdatakey**

specifies the storage key of the storage CICS allocates at task initialization for the duration of the task (task-lifetime storage), and which is accessible by the application. These storage areas are the EXEC interface block (EIB) and the transaction work area (TWA).

TASKDATAKEY also specifies the key of the storage that CICS obtains on behalf of all programs that run under the transaction. The program-related storage that CICS allocates in the specified key includes:

- The copies of working storage that CICS obtains for each execution of an application program.
- The storage CICS obtains for the program in response to implicit and explicit GETMAIN requests. For example, the program can request storage by a GETMAIN command, or as a result of the SET option on other CICS commands.

You must specify TASKDATAKEY(USER) if any of the programs in the transaction is defined with EXECKEY(USER). If you specify TASKDATAKEY(CICS) for a transaction, an attempt to run any program in user key under this transaction leads to a task abend, with abend code AEZD.

**USER** CICS obtains user-key storage for this transaction. Application programs executing in any key can both read and modify these storage areas.

**Note:** User-key programs of transactions defined with ISOLATE(YES) have access only to the user-key task-lifetime storage of their own tasks.

User-key programs of transactions defined with ISOLATE(NO) also have access to the user-key task-lifetime storage of other tasks defined with ISOLATE(NO).

See the description of the EXECKEY attribute on the PROGRAM definition for more information about task storage protection.

**CICS** CICS obtains CICS-key storage for this transaction. Application programs executing in CICS key can both read and modify these storage areas. Application programs executing in user key can only read these storage areas.

### **Taskdata1oc**

specifies whether task life-time storage acquired by CICS for the duration of the transaction can be located above the 16MB line in virtual storage. These areas, which relate to specific CICS tasks, include the EXEC interface block (EIB) and the transaction work area (TWA).

You must specify TASKDATA1OC(BELOW) if any of the programs that make up the transaction runs in 24-bit addressing mode (this also applies to task-related user exits running on behalf of the transaction).

For transactions that do not satisfy any of these conditions, you can specify ANY to obtain the associated virtual storage constraint relief.

CICS polices the use of TASKDATA1OC(ANY). In particular:

- An attempt to invoke an AMODE 24 program running under a transaction defined with TASKDATA1OC(ANY) results in an AEZC abend.

- An attempt to issue an EXEC CICS command or call a task related user exit while running AMODE(24) with TASKDATALOC(ANY) specified results in an AEZA abend.
- An AMODE 31 program running as a transaction with TASKDATALOC(ANY), which attempts to invoke a task-related user exit that is forced to run AMODE(24), results in an AEZB abend.
- If a task-related user exit that is forced to run in AMODE 24 is enabled for task start, CICS forces TASKDATALOC(BELOW) for all transactions for the remainder of the CICS run.

### **BELOW**

Storage areas that CICS acquires for the transaction must be located below the 16MB line.

**ANY** Storage areas that CICS acquires for the transaction can be located above the 16MB line in virtual storage.

### **Taskreq**

specifies whether a transaction is to be initiated by pressing a PF key, by using a light pen, or by using a card. Possible values are:

- **PA1**, **PA2**, or **PA3** for PA keys.
- **PF1** through **PF24** for PF keys.
- **OPID** for the operator identification card reader.
- **LPA** for a light-pen-detectable field on a 3270 device.
- **MSRE** for the 10/63 character magnetic slot reader.

Here are some notes on the use of PF and PA keys:

- If a PA or PF key is specified in the PRINT system initialization parameter, you cannot use the same PF key as the TASKREQ to initiate a transaction.
- PA or PF keys specified in the SKRxxxx system initialization parameter as page retrieval keys are interpreted as such during a page retrieval session. You can use the same keys to initiate transactions at other times. The keys should be defined with the following values:

```
TASKREQ=KEY-ID
PROGRAM=DFHTPR
TWASIZE=1024
TPURGE=NO
SPURGE=NO
```

- If you define a transaction with PROGRAM(DFHTPR), and define a TASKREQ key, the key initiates the transaction and opens the page retrieval session at the same time.

### **Tclass**

As a result of the introduction of TRANCLASS, the TCLASS attribute is obsolete in CICS Transaction Server for z/OS. If you already use TCLASS, you can still access it by using compatibility mode (see the *CICS Resource Definition Guide* for information). See the *CICS Resource Definition Guide* for a description of TCLASS.

### **TPname**

specifies the name of the transaction that may be used by an APPC partner if the 4-character length limitation of the TRANSACTION attribute is too restrictive. This name can be up to 64 characters in length.

### **Tpurge**

specifies (for non-VTAM terminals only) whether the transaction can be purged because of a terminal error.

**NO** The task cannot be purged when a terminal error occurs.

**YES** The task can be purged when a terminal error occurs.

#### **Trace**

specifies whether the activity of this transaction is to be traced.

**YES** Trace the activity for this transaction.

**NO** Do not trace the activity for this transaction.

#### **Tranclass**

specifies the name of the transaction class to which the transaction belongs.

Transactions belonging to a transaction class are subject to scheduling constraints before they are allowed to execute. The reserved TRANCLASS name DFHTCL00 is used to indicate that the transaction does not belong to any transaction class.

The name may be up to 8 characters in length.

#### **Transec**

The TRANSEC attribute is obsolete, but is supported to provide compatibility with earlier releases of CICS. See the *CICS Resource Definition Guide* for more information.

#### **Trprof**

specifies for remote transactions the name of the PROFILE for the session that carries intersystem flows during ISC transaction routing. The name can be up to eight characters in length.

The default is DFHCICSS>

#### **TWAsize**

specifies the size (in bytes) of the transaction work area to be acquired for this transaction. Specify a 1-to 5-digit decimal value in the range 0 through 32767.

#### **Notes:**

1. Your storage may be corrupted if your TWASIZE is too small.
2. Do not change the TWASIZE of the CICS-supplied transactions.

#### **User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the transaction. CICSplex SM makes no use of this user data.

#### **Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

#### **Wait**

specifies whether an in-doubt unit of work (UOW) is to wait, pending recovery from a failure that occurs after the UOW has entered the in-doubt state.

**YES** The UOW is to wait, pending recovery from the failure, to resolve its in-doubt state and determine whether recoverable resources are to be backed out or committed. In other words, the UOW is to be **shunted**.

**NO** The UOW is not to wait. CICS immediately takes whatever action is specified on the ACTION attribute.

#### **Waittime**

specifies how long a transaction is to wait before taking an arbitrary decision about an in-doubt unit of work, based on what is specified in the ACTION attribute.

**00,00,00**

The transaction waits indefinitely.

***dd, hh, mm***

The time, in days, hours, and minutes, for which the transaction is to wait. The maximum value is 93,23,59.

WAITTIME takes effect only if WAIT(YES) is specified.

If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

**XTPname**

This attribute may be used as an alternative to TPNAME. Enter a hexadecimal string up to 128 characters in length, representing the name of the transaction that may be used by an APPC partner. All hexadecimal combinations are acceptable **except X'40'**.

**XTRANID(*value*)**

You can use this optional attribute to specify another name to be used instead of the TRANSACTION name for initiating transactions. The name may be up to eight hexadecimal digits in length. Because XTRANID is specified in hexadecimal form, you can use a name that contains characters that you cannot specify in the TRANSACTION attribute.

(See also TASKREQ, another transaction alias that can be specified.)

**value** A 4-byte transaction identifier in hexadecimal notation (the identifier therefore uses up to eight hexadecimal digits). If you specify fewer than eight hexadecimal digits, the identifier is padded on the right with blanks.

Certain values are reserved for use by CICS, and so there are restrictions on the values you can specify:

- The first byte must not be X'C3'.
- The first byte must not be less than or equal to X'40'.
- The value must not be X'00000000'.
- The last three bytes must not be X'FFFFFF'.

Avoid using values in the range X'00' through X'3F' in the second, third and fourth bytes if the transaction is to be attached by unsolicited data received from a terminal defined as a 3270 device, because CICS will interpret these values as control characters, and not as part of the transaction identifier. For example, if you issue EXEC CICS RETURN or EXEC CICS START and specify TRANSID(X'41303238'), then the correct transaction will be attached. However, if you issue EXEC CICS RETURN without specifying a TRANSID, and the 3270 device transmits data that begins with X'41303238', CICS will attempt to attach a transaction as if X'41404040' had been transmitted.

Additional attributes required for systems running CICS/MVS 2.1.2 or CICS/ESA 3.3 only are:

**Tclass**

For systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, identify the class associated with the task:

**NO** No class is assigned to the task.

**value** A class value, in the range 1 through 10.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

### PrimedSize

For systems running CICS/MVS 2.1.2, identify the primed storage allocation size in bytes:

0 CICS will handle storage for the control blocks.

**value** A storage allocation, in the range 1 through 65520.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

### Extsec

For systems running CICS/MVS 2.1.2, specify YES or NO to indicate whether an external security manager (ESM) is to be used for transaction or resource security checking. If the Extsec value does not apply to this definition, specify N/A.

### Transec

For systems running CICS/MVS 2.1.2, specify a transaction security value in the range 1 through 64. A value of 1 means the transaction is not secured.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

### Rsl

For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the transaction:

0 Transactions with RSL checking specified are not allowed to access the transaction.

**value** A resource security value, in the range 1 through 24.

### PUBLIC

Any transaction is allowed to access the transaction.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

### Routeable

Specify whether or not the transaction, when invoked using an EXEC CICS START TERMID TRANSID command, is eligible for shipping to the TOR (the routing region) for dynamic routing.

**YES** The transaction is eligible for shipping to the TOR for dynamic routing.

NO The transaction is not eligible for shipping to the TOR for dynamic routing.



## Chapter 49. Transaction class definitions

Transaction class definitions describe the operational characteristics for transactions belonging to the class.

### Accessing BAS transaction class definitions

To display information about existing transaction class definitions:

**Issue the command:**

TRNCLDEF [*resdef*]

where *resdef* is the specific or generic name of a transaction class definition. If you omit this parameter, the view, illustrated in Figure 105, includes information about all existing transaction class definitions within the current context.

**Select:**

TRNCLDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 ==TRNCLDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Name Ver Created Changed Description
-----
EYUTCL01 1 1/09/97 16:01 1/09/97 16:01
EYUTCL01 2 1/10/97 08:15 1/10/97 08:15
EYUTCL02 1 1/09/97 16:06 1/09/97 16:06
```

Figure 105. The TRNCLDEF view

### Working with the TRNCLDEF view

The topics covered by this section are:

- “Availability” of the TRNCLDEF view
- “Action commands” for the TRNCLDEF view
- “Hyperlink fields” on page 316 for the TRNCLDEF view

#### Availability

Transaction classes can be defined for CICS/ESA 4.1 and later systems.

#### Action commands

Table 33 summarizes the action commands you can use with the TRNCLDEF view.

Table 33. TRNCLDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a transaction class definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of transaction class definitions, as described on page 29.

Table 33. TRNCLDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a transaction class definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 106. All of the fields are nonmodifiable.
CREate	CRE	Create a transaction class definition and add it to the data repository, as described on page 316.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a transaction class in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a transaction class definition from the data repository, as described on page 33.
n/a	UPD	Update a transaction class definition in the data repository.  The format of the resulting panel is similar to that shown in Figure 106. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the TRNCLDEF view.

## Defining transaction classes using BAS

To create a transaction class definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TRNCLDEF view.
2. Fill in the fields on the transaction class definition panel (see Figure 106):

```

COMMAND  ==>

Name      ==> EYUTCL01  Version ==> 1
Description ==>
RESGROUP  ==>
User Data  ==>

Maxactive  ==> 0          Max transaction active (0 - 999)
Purge thresh ==> NO      Purge threshold (NO, 1-1000000, blank)

Press ENTER to create TRNCLDEF.
Type END or CANCEL to cancel without creating.
```

Figure 106. Creating a transaction class definition

3. To add the transaction class definition to the data repository, press Enter.



---

## Installing BAS transaction class definitions

To install a transaction class in an active system, issue the INS command.

After installation of a TRNCLDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM TRNCLS command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TCLASS command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE TRANCLASS command; see *CICS System Programming Reference*.

---

## Transaction class definition attributes

The transaction class definition attribute descriptions are:

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

### Maxactive

specifies the maximum number of transactions in this transaction class that are allowed to be active. You must specify a MAXACTIVE value when you define a transaction class, in the range 0 through 999.

### Name

Specify a 1- to 8-character name for the transaction class definition.

### Purgethresh

This is an optional purge threshold for the transaction class; it defines a threshold number at which transactions queuing for membership of the transaction class are purged. Specify it if you want to limit the number of transactions queueing in this transaction class. It can have the following values:

**NO** The size of the queue is unlimited (other than by the storage available to attach tasks).

*number*

The purge threshold number in the range 1—1 000 000.

If you specify this as 1, no transactions are allowed to queue. If you specify it as any other number (*n*), the size of the queue is restricted to *number*–1. All new transactions attached after the limit of *n*–1 is reached are purged.

### RESGROUP

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

### User data

(Optional.) Three 8-character fields provided for any site-specific data related to the transaction class. CICSplex SM makes no use of this user data.

### Version

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

TRNCLDEF

---

## Chapter 50. Temporary storage model definitions

Temporary storage model definitions describe the attributes of temporary storage models defined in the CPSM data repository. When installed in a target CICS system, these temporary storage model attributes govern the characteristics of CICS temporary storage queues, whose names generically match that of the Prefix field.

---

### Accessing BAS temporary storage model definitions

To display information about existing temporary storage model definitions:

**Issue the command:**

TSMDEF [*resdef*]

where *resdef* is the specific or generic name of a temporary storage model definition. If you omit this parameter, the view, illustrated in Figure 107, includes information about all existing temporary storage model definitions within the current context.

**Select:**

TSMDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 =TSMDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====
CMD Name Ver Created Changed Description
-----
EYUTSM01 1 1/09/98 16:01 1/09/98 16:01
EYUTSM01 2 1/10/98 08:15 1/10/98 08:15
EYUTSM02 1 1/09/98 16:06 1/09/98 16:06
```

Figure 107. The TSMDEF view

---

### Working with the TSMDEF view

The topics covered by this section are:

- “Availability” of the TSMDEF view
- “Action commands” for the TSMDEF view
- “Hyperlink fields” on page 320 for the TSMDEF view

#### Availability

Temporary storage models can be defined for CICS Transaction Server for z/OS, Version 3 Release 1.

#### Action commands

Table 34 on page 320 summarizes the action commands you can use with the TSMDEF view.

Table 34. TSMDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a temporary storage model definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of temporary storage model definitions, as described on Figure 9 on page 29.
n/a	BRO	Browse a temporary storage model definition in the data repository.
CREate	CRE	The format of the resulting panel is similar to that shown in Figure 108 on page 321. All of the fields are nonmodifiable. Create a temporary storage model definition and add it to the data repository, as described on page 320.
n/a	INS	For systems running CICS Transaction Server for OS/390 Release 3, install a temporary storage model in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove <i>resdef version</i>	REM	Remove a temporary storage model definition from the data repository, as described on page 33.
n/a	UPD	Update a temporary storage model definition in the data repository.  The format of the resulting panels is similar to that shown in Figure 108. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the TSMDEF view.

## Defining temporary storage models using BAS

To create a temporary storage model definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TSMDEF view.
2. Fill in the fields on the temporary storage model definition panel (see Figure 108 on page 321):

```

COMMAND  ==>
Name      ==> TSMODL01      Version ==> 1
Description ==> Model for
RESGROUP  ==>
User Data  ==>

Prefix      ==> USERAPP1      Prefix for TS queues
XPrefix     ==>

Location    ==> AUXILIARY      TS queue in MAIN or AUXILIARY storage
Recovery    ==> NO              Recoverable TS queue (YES, NO)
Security     ==> NO              Security checking on queue (YES, NO)
Pool name    ==>                Shared TS pool name

Remote system ==>                Remote system name
Remote prefix ==>                Prefix used on remote system
XRemote prefix ==>

Press ENTER to create TSMDEF.
Type END or CANCEL to cancel without creating.

```

Figure 108. Creating a temporary storage model definition

3. To add the temporary storage model definition to the data repository, press Enter. Otherwise, enter one of the other commands available from this panel.

## Installing BAS temporary storage model definitions

A temporary storage model definition specifies the attributes of temporary storage queues with names that match the prefix in the model. When a TSMDEF is installed, a TSMODEL is created on the local system. When an EXEC CICS WRITEQ TS command specifies a prefix that matches a TSMODEL prefix, a temporary storage queue is created, using the attributes of the TSMODEL. If the installed TSMODEL specifies a Remote system name, the queue is created on that remote system. However, the TSMDEF and the TSMODEL always exist locally. This rule applies whether the TSMDEF is installed using the INS command, or by resource assignment or resource group. If either a RASGNDEF or a RESGROUP is used to install the temporary storage model definition, the Usage parameter must always specify LOCAL (see “Installing resource descriptions” on page 78 and “Installing resource groups” on page 72).

To install a temporary storage model into an active system, issue the INS command.

After installation of a TSMDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM TSMODEL command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TSMODEL command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE TSMODEL command; see *CICS System Programming Reference*.

## Temporary storage model definition attributes

The temporary storage model definition attribute descriptions are:

### Description

(Optional.) Specifies a 1- to 30-character description of the resource.

**Location**

specifies whether the queue is to be held in auxiliary or main storage:

**AUXILIARY**

Queues matching this model are to be held on auxiliary storage. Whatever is specified on the API request is disregarded.

**MAIN** Queues matching this model are to be held in main storage. Whatever is specified on the API request is disregarded.

**Notes:**

1. TSMODEL definitions created using the Migrate command have their location attribute set to the default value *AUXILIARY*.
2. LOCATION is ignored for remote TSMODELS and shared TS pool models. Using LOCATION on a remote entry allows the same definition to be installed in both a local and remote region. See the *CICS Resource Definition Guide*.

**Name**

Specify a 1- to 8-character id for the temporary storage model definition.

**Pool name**

specifies the 8-character name of the shared TS pool definition that you want to use with this TSMODEL definition. The name can be up to eight characters in length.

**Prefix**

specifies the character string that is to be used as the prefix for this model. The prefix may be up to 16 characters in length.

**Note:** Note that you can use either upper case, or lower case, or a mixture of the two for the prefix name; lower case is not folded to upper case. For example, queue prefixes EYUPREFIX, EYUprefix, and eyuprefix identify three different queue models. If you are using CECL, or any other application that does not support mixed case prefix names, you should check that your data is being written to the correct temporary storage queue

**Recovery**

specifies whether or not queues matching this model are to be recoverable.

**NO** queues matching this model are to be non-recoverable.

**YES** queues matching this model are to be recoverable.

**Remote prefix**

specifies the character string that is to be used as the prefix on the remote system. The prefix may be up to 16 characters in length.

**Remote system**

specifies the name of the connection that links the local system to the remote system where the temporary storage queue resides.

REMOTESYSTEM and POOLNAME are mutually exclusive. If REMOTESYSTEM is specified, POOLNAME is ignored.

Note that a remote system name applies only to the created temporary storage queue. A temporary storage model definition can be installed only on the local system. For more information, see "Installing BAS temporary storage model definitions" on page 321.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Security**

specifies whether security checking is to be performed for queues matching this model.

**NO** security checking is not to be performed for queues matching this model.

**YES** security checking is to be performed for queues matching this model.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the temporary storage model. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**XPrefix**

may be used as an alternative to PREFIX. Enter a hexadecimal string, up to 32-characters in length, that is to be used as the prefix for this model. Because XPREFIX is specified in hexadecimal form, you can use a name that contains characters that you cannot enter in the PREFIX attribute. Generic prefix names are allowed, using a single wildcard character, hex 4E.

**XRemote prefix**

may be used as an alternative to REMOTEPREFIX. Enter a hexadecimal string, up to 32-characters in length, that is to be used as the prefix on the remote system. Because XREMOTEPREFIX is specified in hexadecimal form, you can use a name that contains characters that you cannot enter in the REMOTEPREFIX attribute.





---

## Chapter 51. Typeterm resource definitions

Typeterm definitions are partial terminal definitions that describe a set of common attributes for a group of terminals.

**Note:** For detailed information on typeterm definitions, including valid device types and the resulting dependent default values, refer to the *CICS/ESA Resource Definition Guide* (or the *Resource Definition (Online)* book) for the version of CICS you are running.

---

### Accessing BAS typeterm definitions

To display information about existing typeterm definitions:

**Issue the command:**

TYPTMDEF [*resdef*]

where *resdef* is the specific or generic name of a typeterm definition. If you omit this parameter, the view, illustrated in Figure 109, includes information about all existing typeterm definitions within the current context.

**Select:**

TYPTMDEF from the ADMRES menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 ==TYPTMDEF=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====5==
CMD Name      Ver      Created          Changed          Description
-----
CONSL000      1      1/09/97 16:36    1/09/97 16:36
MRDTYPE       1      1/10/97 08:29    1/09/97 08:29    PS/2 Model 80 Simulator
TCSN3277      1      1/09/97 16:49    1/09/97 16:49
TYPEFEPI      1      1/10/97 14:37    1/10/97 14:37
327R          1      1/10/97 14:48    1/10/97 14:48
```

Figure 109. The TYPTMDEF view

---

### Working with the TYPTMDEF view

The topics covered by this section are:

- “Availability” of the TYPTMDEF view
- “Action commands” for the TYPTMDEF view
- “Hyperlink fields” on page 326 for the TYPTMDEF view

#### Availability

Typeterms can be defined for all managed CICS systems.

#### Action commands

Table 35 on page 326 summarizes the action commands you can use with the TYPTMDEF view.

Table 35. TYPTMDEF view action commands

Primary command	Line command	Description
ADD <i>resdef version</i>	ADD	Add a typeterm definition to a resource group, as described on page 44.
ALTER	n/a	Apply global changes to a set of typeterm definitions, as described on page 29.
n/a	BRO	Browse a typeterm definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 110 on page 327 through Figure 114 on page 329. All of the fields are nonmodifiable.
CREate	CRE	Create a typeterm definition and add it to the data repository, as described on page 326.
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a typeterm in an active system, as described on page 87.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMOve <i>resdef version</i>	REM	Remove a typeterm definition from the data repository, as described on page 33.
n/a	UPD	Update a typeterm definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 110 on page 327 through Figure 114 on page 329. Most of the fields are modifiable.

## Hyperlink fields

There are no hyperlink fields in the TYPTMDEF view.

## Defining typeterms using BAS

To create a typeterm definition:

1. Enter the create primary (CREate) or line (CRE) action command from the TYPTMDEF view.
2. Fill in the fields on the first panel (see Figure 110 on page 327):

```

COMMAND ==>
Name      ==> EYUTYP01 Version ==> 1
Description ==>
RESGROUP  ==>
User Data  ==>

Device     ==>      Device type
Termmodel  ==> 1      Model number (1, 2, blank)
SessionType ==>      VTAM SNA session type
LDCLIST    ==>      Logical device code list name
Shippable  ==> NO     Shippable to remote system (NO, YES)
Pagesize   ==> 0 ,0   Rows, Cols (0-999, 0-999, blank)
Altpage    ==> 0 ,0   Rows, cols (0-999, 0-999, blank)
Altsuffix  ==>      Alphanumeric suffix for map sets
FMHparm    ==> NO     User-supplied data in FMH (NO, YES)
OBoperid   ==> NO     Outboard operid used by CICS (NO, YES)
Autopage   ==> NO     Should autopage be used (NO, YES)
DefScreen  ==> 0 ,0   3270 devsize, Rows, Cols (0-999,0-999,blank)
AltScreen  ==> 0 ,0   Alt 3270 devsize, Rows, Cols (0-999,0-999,blank)

Press ENTER to create TYPTMDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 110. Creating a typeterm definition - Page 1

3. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
4. Fill in the fields in the second panel (see Figure 111):

```

COMMAND ==>
Name      EYUTYP01 Version ==> 1

Query      ==> NO     User query structured field (NO,COLD,ALL)
Sendsize   ==> 0      Maximum send size (0-30720, blank)
Receivesize ==> 256    Maximum receive size (0-30720, blank)
Bracket    ==> YES     Bracket protocol enforced (YES, NO)
Logmode     ==>      Logmode name
Autoconnect ==> NO     Autoconnect for terminal (NO, YES)
Ati         ==> NO     Transactions started via ATI (NO, YES)
Tti         ==> YES     Transactions started via user (YES, NO)
Createsess  ==> NO     Sessions to be created (NO, YES)
Relreq      ==> NO     CICS to release LU (NO, YES)
Discreq     ==> YES     Disconnect requests honored (YES, NO)
Nepclass    ==> 0      Nep transaction class (0-255, blank)
Signoff     ==> YES     Automatic timeout (YES, NO, LOGOFF)
Xrfsignoff  ==> NOFORCE Signon characteristics (NOFORCE, FORCE)
Rstsignoff  ==> NOFORCE Signon characteristics (NOFORCE, FORCE)
Routedmsgs  ==> ALL     Messages routed to terminal (ALL, NONE, SPECIFIC)
Logonmsg    ==> NO     Logon message initiated (NO, YES)

Press ENTER to create TYPTMDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 111. Creating a typeterm definition - Page 2

5. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
6. Fill in the fields on the third panel (see Figure 112 on page 328):

```

COMMAND ===>
Name          EYUTYP01  Version ===> 1

Buildchain    ===> NO      Perform chain assembly (NO, YES)
Userarealen   ===> 0       User area size (0-255, blank)
Ioarealen     ===> 0       I/O area size, Alt size (0-32767, blank)
Uctran        ===> NO      Uppercase translation req'd (YES, NO, TRANID)
Recovoption   ===> SYSDEFAULT Recovery option (SYSDEFAULT,CLEARCONV,
                           RELEASESESS, UNCONDREL, NONE)
Recnotify     ===> NONE     Recovery notification (NONE,MSG,TRAN)
Apkybd        ===> NO      APL keyboard feature supported (NO, YES)
Apltext       ===> NO      APL text feature supported (NO, YES)
Audiblealarm  ===> NO      Audible alarm feature supported (NO, YES)
Color         ===> NO      Extended color feature supported (NO, YES)
Copy          ===> NO      Copy feature supported (NO, YES)
Dualcasekybd  ===> NO      Dualcase keyboard supported (NO, YES)
Extendeddds   ===> NO      3270 datastream extensions supported (NO, YES)
Hilight       ===> NO      Extended highlight facility supported (NO, YES)
Katakana      ===> NO      Katakana support required (NO, YES)

Press ENTER to create TYPTMDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 112. Creating a typeterm definition - Page 3

7. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
8. Fill in the fields on the fourth panel (see Figure 113):

```

COMMAND ===>
Name          EYUTYP01 Version ===> 1

Lightpen      ===> NO      Selector pen feature supported (NO, YES)
Msrcontrol    ===> NO      Magnetic slot reader available (NO, YES)
Obformat      ===> NO      Outboard formatting to be used (NO, YES)
Partitions    ===> YES     Device using partitions (NO, YES)
Printadapter   ===> NO     Print adapter to be used (NO, YES)
Progsymbols   ===> NO     PS facility available (NO, YES)
Validation     ===> NO     Extended validation feature supported (NO, YES)
Formfeed      ===> NO     Formfeed feature supported (NO, YES)
Horizform     ===> NO     Use horizontal tabbing (NO, YES)
Verticalform   ===> NO     Use vertical tabbing (NO, YES)
Textkybd      ===> NO     Text-keyboard feature supported (NO, YES)
Textprint     ===> NO     Text-print feature supported (NO, YES)
Outline       ===> NO     Field outlining supported (NO, YES)
Sosi          ===> NO     Mixed EBCDIC and DBCS supported (NO, YES)
Backtrans     ===> NO     Bkground transparency feature supported (NO, YES)
Cgcsgid       ===> 0      CGCS Id (0-65535, blank)

Press ENTER to create TYPTMDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 113. Creating a typeterm definition - Page 4

9. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.
10. Fill in the fields on the fifth panel (see Figure 114 on page 329):

```

COMMAND  ==>>
Name      EYUTYP01  Version ==> 1

Ascii      ==> NO      ASCII feature supported (NO, 7, 8, blank)
Errlastline ==> NO      Display error messages (NO, YES)
Errintensify ==> NO     Display errmsgs in intensified fields (NO,YES)
Errcolor    ==> NO      Display errmsgs in color (NO,BLUE,RED,PINK,
                        GREEN,TURQUOISE,YELLOW,NEUTRAL)
Errhighlight ==> NO     Error msg highlight (NO,BLINK,REVERSE,UNDERLINE)

Press ENTER to create TYPTMDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 114. Creating a typeterm definition - Page 5

11. To add the typeterm definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS typeterm definitions

To install a typeterm in an active system, issue the INS command.

After installation of a TYPTMDEF resource definition, you can enquire about the resultant object using:

- The CICSplex SM TERMNL command; see *CICSplex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TERMINAL command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE TERMINAL command; see *CICS System Programming Reference*.

## Typeterm definition attributes

The typeterm definition attribute descriptions are:

### Altpage

specifies the page size to be used by BMS for this terminal entry when the alternate screen size is specified in a profile definition (PROFDEF). The default is the PAGESIZE. The values for both *rows* and *columns* must be in the range 0 through 999. The product of *rows* and *columns* must not exceed 32767. If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

### AltScreen

specifies the 3270 screen size to be used for a transaction that has an alternate screen size specified in its profile definition. The row and column values must each be in the range 0 through 999. If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

### Altsuffix

A 1-character numeric suffix that BMS is to append to map set names.

**blank** Leave this attribute blank if you do not want a suffixed map set.

*number*

BMS appends this suffix to map set names if the screen size being used is the same value as the alternate screen size; that is, if the

transaction has an alternate screen size specified in the PROFILE definition, or if the default and alternate screen size are the same.

**Ap1kybd**

specifies whether the 3270 device has the APL keyboard feature:

**YES** The 3270 device has the APL keyboard feature.

**NO** The 3270 device does not have the APL keyboard feature.

**Ap1text**

specifies whether the 3270 device has the APL text feature:

**YES** The 3270 device has the APL text feature.

**NO** The 3270 device does not have the APL text feature.

**Ascii**

specifies whether the terminal has an ASCII feature.

**NO** This terminal does not have an ASCII feature.

**7** Specify this to communicate with ASCII-7 terminals.

**8** Specify this to communicate with ASCII-8 terminals.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Ati**

specifies whether transactions can start at the terminal by automatic transaction initiation:

**YES** Transactions can start at the terminal by automatic transaction initiation.

**NO** Transactions cannot start at the terminal by automatic transaction initiation.

**Audiblealarm**

specifies whether the audible alarm feature is installed for a 3270 display or for a 3270 printer attached to a 3651 controller:

**YES** The audible alarm feature is installed.

**NO** The audible alarm feature is not installed.

**Autoconnect**

specifies whether autoconnect processing is to occur for the terminal.

**NO** CICS does not attempt to bind sessions when the connection is established.

**YES** CICS attempts to bind as a contention winner session, when the connection is established.

**Autopage**

specifies whether BMS autopaging is to be used. Specify YES for printers and NO for display devices.

**Backtrans**

specifies whether the device has the background transparency feature:

**NO** The device does not have the background transparency feature.

**YES** The device does have the background transparency feature.

**Bracket**

specifies whether bracket protocol is to be enforced for this logical unit.

- YES** Bracket protocol is to be used.
- NO** Bracket protocol is not to be used.

**Buildchain**

specifies whether CICS is to perform chain assembly prior to passing the input data to the application program.

- NO** Any terminal input/output area (TIOA) received by an application program from this logical unit contains one request unit (RU).
- YES** Any TIOA received by an application program from this logical unit contains a complete chain.

**Cgcsgid**

Specify a coded graphic character set global identifier (CGCSGID), in the range 0 through 655335.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Color**

specifies whether the 3270 device or the SCS printer has the extended color feature, which allows colors to be selected for each field or character:

- NO** The device does not have the extended color feature.
- YES** The device has the extended color feature.

**Copy**

specifies whether the copy feature for a 3270 display or printer is included in the 3270 control unit:

- NO** The copy feature is included.
- YES** The copy feature is not included.

**Createsess**

specifies whether sessions are to be created.

- NO** Specify this to prevent internally generated session requests from actually creating a session.
- YES** Specify this for a status that allows internally generated session requests to create a session.

**DefScreen**

specifies the 3270 screen size or 3270 printer page size to be used on this device when attached to a transaction for which the default screen size has been specified in the profile definition. The row and column values must each be in the range 0 through 999. If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

**Description**

(Optional.) Specifies a 1- to 30-character description of the resource.

**Device**

specifies the device type which this TYPETERM defines.

**Discreq**

specifies whether disconnect requests are to be honored.

- YES** CICS is to honor a disconnect request for a VTAM device.
- NO** CICS is not to honor a disconnect request for a VTAM device.

## Dualcasekybd

specifies whether a 3270 display has a typewriter keyboard or an operator console keyboard. Both uppercase and lowercase data can be transmitted with either of these keyboards

**NO** The device does not have a dual-case keyboard.

**YES** The device has a dual-case keyboard.

## Errcolor

specifies whether the error message is to be displayed in color.

The colors you can specify are:

BLUE  
RED  
PINK  
GREEN  
TURQUOISE  
YELLOW  
NEUTRAL

## Errhighlight

specifies the highlighting, if any, with which error messages are to be displayed. The forms of highlighting you can specify are:

BLINK  
REVERSE  
UNDERLINE.

## Errintensify

specifies whether the error message is to be displayed in an intensified field.

## Errlastline

specifies where error messages are to be displayed.

**NO** An error message is displayed at the current cursor position and without any additional attributes.

**YES** An error message is displayed starting at the beginning of the line nearest the bottom of the screen so that the whole message fits on the screen.

Because all error messages occupy the same line, if the messages are received in quick succession, they overlay one another and earlier messages may disappear before they have been read.

## Extendedds

specifies whether the 3270 device or the SCS printer supports extensions to the 3270 data stream:

**NO** The device does not support 3270 data stream extensions.

**YES** The device supports 3270 data stream extensions.

## FMHparm

specifies whether BMS is to accept user-supplied parameters for inclusion in the function management header built by BMS:

**NO** Do not accept user-supplied parameters for inclusion in the function management header built by BMS.

**YES** Accept user-supplied parameters for inclusion in the function management header built by BMS.



**Formfeed**

specifies whether or not the device has the forms feed feature, which means that BMS uses the form-feed character when formatting output documents:

**NO** The device does not have the form feed feature.

**YES** The device has the form feed feature.

**Highlight**

specifies whether the 3270 device or SCS printer has the extended highlight facility, which enables fields or characters to be displayed in reverse-video, underline mode, or blink (3270 only):

**NO** The device does not have the extended highlight facility.

**YES** The device has the extended highlight facility.

**Horizform**

specifies whether or not the device has the horizontal form feature, which means that BMS should use the horizontal tabbing when formatting output documents:

**NO** The device does not have the horizontal form feature.

**YES** The device has the horizontal form feature.

**NO** The HTAB option in the BMS map definition is ignored.

**YES** BMS uses horizontal tabbing when formatting output documents.

**Ioarealen**

specifies the length in bytes of a terminal input/output area to be passed to a transaction.

If you specify ATI(YES), you must specify an IOAREALEN of at least one byte.

*value1* *Value1* specifies the minimum size of a terminal input/output area to be passed to an application program when a RECEIVE command is issued.

*value2* You can specify *value2* as greater than or equal to *value1*. In this case, when the size of an input message exceeds *value1*, CICS uses a terminal input/output area *value2* bytes long. If the input message size also exceeds *value2*, the node abnormal condition program sends an exception response to the terminal.

If *value2* is not specified, or is less than *value1*, it defaults to the value of *value1*.

The maximum value that may be specified for IOAREALEN is 32767 bytes. If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

**Katakana**

specifies whether Katakana support is required. Katakana terminals cannot display mixed case output; uppercase characters appear as uppercase English characters, but lowercase characters appear as Katakana characters.

**NO** Katakana support is not required.

**YES** Katakana support is required.

**LDClist****Lightpen**

specifies whether a 3270 display has the selector pen feature:

**NO** The 3270 display does not have the selector pen feature.

**YES** The 3270 display has the selector pen feature.

## Logmode

specifies how CICS is to build the BIND to be sent to the logical unit.

**blank** A defined terminal definition uses the BIND image generated by the CICS definitions for this device by means of this TYPETERM definition and its associated terminal definitions.

**name** This is the LOGMODE name from a VTAM logon mode table that has been set up for use by this logical unit. The name may be up to eight characters in length.

## 0 (zero)

This causes CICS to use some of the information from the BIND image contained in the CINIT coming from the logical unit.

## Logonmsg

specifies whether the 'good morning' transaction, specified in the GMTRAN system initialization parameter, will be:

- Automatically initiated when the logical unit is first logged on to CICS through VTAM
- Initiated after the terminal user's TIMEOUT period has expired under certain conditions.

If you have specified ERRLASTLINE(YES), the messages written by the transaction do not overwrite the error message line.

## Msrcontrol

specifies whether the terminal, an 8775 or 3643, has a magnetic slot reader.

## Name

Specify a 1- to 8-character name for the typeterm definition.

## Nepclass

specifies the node error program transaction class.

**0** This results in a link to the default node error program module.

**value** The transaction class for the (nondefault) node error program module. *Value* can be in the range 1 through 255. For programming information about the node error program, see the *CICS Customization Guide*.

## Obformat

specifies whether outboard formatting is used. Obformat can be specified for two device types only:

- 3650, SESSIONTYPE(3270)
- LUTYPE2, for an 8100 Information System using the DPPX operating system with DPPX/DPS Version 2 for presentation services

## OBoperid

specifies whether CICS uses the outboard operator identifiers to support the BMS routing facilities required for this terminal. This option applies only to the 3790 and 3770 batch data interchange logical units.

**NO** CICS does not use the outboard operator identifiers.

**YES** CICS uses the outboard operator identifiers.

## Outline

specifies whether the device supports field outlining:

**NO** The device does not support field outlining.

**YES** The device supports field outlining.

#### **Pagesize**

specifies the default page size for this printer. The default page size is used by BMS when the default screen size has been specified in a profile definition (PROFDEF)..

The product of *rows* and *columns* must not exceed 32767.

If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

#### **Partitions**

specifies whether a device is to use partitions. This option is not valid for SCS printers.

**NO** The device is not to use partitions.

**YES** The device is to use partitions.

#### **Printadapter**

**For the 3275:** specifies whether the printer adapter feature and corresponding 3284 Printer Model 3 are present on the 3275 Display Station.

**NO** The printer adapter feature and corresponding 3284 Printer Model 3 are not available.

**YES** The printer adapter feature and corresponding 3284 Printer Model 3 are available.

**For LUTYPE2 logical units:** specifies whether, for print requests initiated by the PRINT key or by an ISSUE PRINT command, printer allocation is handled by the 3790, or by the 3274 or 3276, according to the printer authorization matrix for both VTAM and non-VTAM attachments.

**NO** Print requests are not handled according to the printer authorization matrix for both VTAM and non-VTAM attachments.

**YES** Print requests are handled according to the printer authorization matrix for both VTAM and non-VTAM attachments.

#### **Progsymbols**

specifies whether the programmed symbol (PS) facility can be used on this 3270 device or SCS printer.

**NO** Programmed symbol (PS) facility cannot be used.

**YES** Programmed symbol (PS) facility can be used.

#### **Query**

specifies whether CICS should use the QUERY structured field to determine the characteristics of the device.

**NO** CICS does not use the QUERY function.

**COLD** CICS uses the QUERY function to determine the characteristics of the device only when the device is first connected after an initial or a cold start of CICS. The device characteristics are stored in the CICS global catalog for use on subsequent warm and emergency starts.

**ALL** CICS uses the QUERY function to determine the characteristics of the device each time the device is connected.

### Receivesize

Specify the maximum size of a request unit that can satisfy a VTAM RECEIVE request. The RECEIVESIZE value is transmitted to the connected logical unit, and must be in the range 0 through 30720. If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

### Recnotify

Specify how a terminal user should be notified of a system restart (in the case of VTAM persistent sessions support) or an XRF takeover:

**NONE** No notification is given.

**MSG** A message is sent to the terminal screen.

**TRAN** A transaction is initiated at the terminal.

### Recovoption

This option applies to the recovery of sessions in a CICS region running with VTAM persistent sessions, or with XRF.

#### SYSDEFAULT

**VTAM persistent sessions:** In a CICS region running with persistent sessions support, this specifies that CICS is to select the optimum procedure to recover a session on system restart within the persistent session delay interval, depending on the session activity and on the characteristics of the terminal.

**XRF:** In a CICS region running with XRF support, this specifies that CICS is to select the optimum procedure to recover a busy session at takeover, depending on the session activity and on the characteristics of the terminal.

### CLEARCONV

Prevents CICS from sending an end-bracket indicator to close an in-bracket session. Instead CICS sends a CLEAR request, to reset the conversation states. If the session does not support the CLEAR request, CICS sends an UNBIND request. The CLEAR or UNBIND is sent only if the session was busy at the time of system restart (in the case of persistent sessions) or takeover (in the case of XRF).

### RELEASESESS

Requires CICS to send an UNBIND request to release the active session. The UNBIND is sent only if the session was busy at the time of system restart (in the case of persistent sessions), or takeover (in the case of XRF).

### UNCONDREL

Requires CICS to send an UNBIND request to release the active session. The UNBIND is sent whether or not the session was busy at the time of system restart (in the case of persistent sessions support) or the takeover (in the case of XRF).

### NONE

**VTAM persistent sessions:** In a CICS region running with persistent sessions support, this specifies that the terminal session is not to be recovered at system restart within the persistent session delay interval: in effect, the terminal has no persistent sessions support.

### Relreq

specifies whether CICS is to release the logical unit upon request by another VTAM application program.

**NO** CICS is not to release the logical unit.

**YES** CICS is to release the logical unit, if the logical unit is not currently part of a transaction.

#### **RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

#### **Routedmsgs**

specifies which messages are to be routed to this terminal by an EXEC CICS ROUTE command.

**ALL** BMS routes to this terminal messages that are destined for **all** terminals as well as those specifically destined for **this** terminal.

**NONE** BMS does not route any messages to this terminal, whether they are destined for all terminals or for this terminal specifically.

#### **SPECIFIC**

BMS routes messages to this terminal when they are destined specifically for this terminal, but not when they are destined for **all** terminals.

#### **Rstsignoff**

specifies the sign-on characteristics of a group of terminals in the event of a persistent sessions restart or an XRF takeover. It supersedes the XRF SIGNOFF attribute, which is obsolete.

If you have a collection of terminals in a security-sensitive area, for example, you might choose to force sign off of those terminals after a persistent sessions restart or an XRF takeover, to prevent the use of the terminal in the absence of the authorized user. (This could happen if the authorized user left the terminal during the restart or takeover, and the terminal became active again while it was unattended.)

This option works in conjunction with the RST SIGNOFF system initialization parameter and the XRF SOFF entry in the CICS segment of the RACF user profile.

#### **FORCE**

This group of terminals will be signed off after a persistent sessions restart or XRF takeover.

#### **NOFORCE**

This group of terminals will be signed on after a persistent sessions restart or XRF takeover, provided that both the RST SIGNOFF system initialization parameter and the XRF SOFF entry in the CICS segment of the RACF user profile are also set to NOFORCE.

#### **Sendsize**

Specify the maximum size of a request unit that can satisfy a VTAM SEND request, in the range 0 through 30720. If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

#### **SessionType**

specifies the type of session that can be used for a VTAM SNA logical unit.

#### **Shippable**

specifies whether the definition is allowed to be sent to a remote system if this device tries to initiate a remote transaction.

**NO** This definition cannot be shipped to a remote system.

**YES** This definition can be shipped to a remote system.

**Signoff**

specifies whether the terminal should be timed out automatically.

**YES** When the specified time has elapsed after the last input from the operator, the terminal is automatically signed off from CICS.

**NO** The terminal is not timed out.

**LOGOFF**

When the specified time has elapsed after the last input from the operator, the terminal is automatically signed off from CICS and then logged off from VTAM.

**Sosi**

specifies whether the device supports mixed EBCDIC and double-byte character set (DBCS) fields.

**NO** The device supports mixed EBCDIC and double-byte character set (DBCS) fields.

**YES** The device supports mixed EBCDIC and double-byte character set (DBCS) fields.

**Termmodel**

specifies the model number of the terminal. If the device is a component of the 3270 Information Display System, specify the model number of the terminal:

**1** Specify 1 for the 3270 Model 1 displays and printers (for example, 3277 Model 1) with a default screen or buffer size of 12x40 (480 bytes/characters). TERMMODEL(1) is the default for 3270 Model 1 printers and displays.

Specify 1 for the 3275 Display Station Model 11. The CICS support obtained is identical to that obtained by coding TERMMODEL(1) for 3275 Display Station Model 1.

**2** Specify 2 for the 3270 displays and printers (for example, 3278 Model 4) with a default screen or buffer size of 24x80 (1920 bytes/characters). TERMMODEL(2) is the default for the 3286 printer in 3270 compatibility mode.

Specify 2 for the 3275 Display Station Model 12. The CICS support obtained is identical to that obtained by coding TERMMODEL(2) for 3275 Display Station Model 2.

If you leave this field blank, CICSplex SM uses the default value for your CICS environment, if there is one.

**Textkybd**

specifies whether the 3270 device has the text-keyboard feature.

**NO** The 3270 device does not have the text-keyboard feature.

**YES** The 3270 device has the text-keyboard feature.

**Textprint**

specifies whether the 3288 printer has the text-print feature.

**NO** The 3288 printer does not have the text-print feature.

**YES** The 3288 printer has the text-print feature.

**Tti**

specifies whether transactions can be initiated at the terminal by a user.

**Uctran**

specifies whether the input data stream from a terminal is to be translated to uppercase.

**NO** No uppercase translation is performed.

**YES** All the data input from the terminal, both the transaction identifier if present and the program data, is translated to uppercase before any processing.

**TRANID**

When the input data stream includes a transaction identifier, CICS translates it to uppercase before attempting to locate its definition. However, all the input data, both the transaction identifier and the program data, is passed to the program without any translation.

**Userarealen**

specifies the length in bytes (0 to 255) of the user area for this terminal. If you leave this field blank, CICSplex SM uses the default values for your CICS environment, if there are any.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the typeterm. CICSplex SM makes no use of this user data.

**Validation**

specifies whether or not an 8775 or 3290 device the extended validation feature:

**NO** The device does not have the extended validation feature.

**YES** The device has the extended validation feature.

specifies whether the 8775 device has the extended validation feature, which allows fields to be defined as TRIGGER, MANDATORY FILL, or MANDATORY ENTER.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.

**Vertical form**

specifies whether the device has the vertical form feature.

**NO** The device does not have the vertical form feature.

**YES** The device has the vertical form feature.

**Xrfsignoff**

This attribute is obsolete, and superseded by the RSTSIGNOFF attribute. It is supported to provide compatibility with earlier releases of CICS.

You cannot specify both XRFSIGNOFF and RSTSIGNOFF; if you specify XRFSIGNOFF on CICS TS for z/OS, Version 2.1 or earlier, you must specify RSTSIGNOFF on CICS TS for z/OS, Version 2.2 or later.

If you define a TYPETERM with this attribute, you can only install it on CICS TS for z/OS, Version 2.1 or an earlier version. See *CICS Resource Definition Guide* for more information.





## Chapter 52. URIMAP resource definitions

A URIMAP resource definition matches the URIs of HTTP or web service requests, and provides information. See *CICS Resource Definition Guide* for more information about URIMAP resource definitions in CICS.

You need to use the Web User Interface (WUI) to define URIMAP resource definitions in CICSplex SM. There are no corresponding EUI views.

### Working with URIMAP definitions

URIMAP definitions can be defined for CICS TS 3.1 and later systems.

To display information about existing URIMAP definitions from the WUI main menu, click **Administration views** → **Basic CICS resource administration views** → **CICS resource definitions** → **URI mapping definitions**. This opens the **URI map definition** tabular view (EYUSTARTURIMPDEF.TABULAR). Click on one of the displayed URIMAP definition name to open a detailed view of the selected resource definition. All of the fields are nonmodifiable.

Table 36 summarizes the actions you can perform from the **URI map definition** tabular or detailed view.

Table 36. URI map definition view action commands

Action command button	Description
<b>Add to resource group</b>	Add a URIMAP definition to a resource group.
<b>Create</b>	Create a URIMAP definition and add it to the data repository.
	This opens a detailed view of a preselected resource. All of the fields are modifiable.
<b>Install</b>	Install a URIMAP definition in an active system.
<b>Remove</b>	Remove a URIMAP definition from the data repository.
<b>Update</b>	Update a URIMAP definition in the data repository.
	This opens a detailed view of a preselected resource. Most of the fields are modifiable.

See *CICS Resource Definition Guide* for an explanation of the URIMAP attributes you need to specify when creating and updating URIMAP definitions. See *CICSplex System Manager Resource Tables Reference* for a list of the corresponding URIMPDEF resource table attributes.

After installation of a URIMAP resource definition, you can enquire about the resulting object using:

- The WUI **URI map** view (EYUSTARTURIMAP); from the WUI main menu, click **CICS operations views** → **TCP/IP service operations views** → **URI map**.
- The CICS CEMT INQUIRE URIMAP command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE URIMAP command; see *CICS System Programming Reference*.



## Chapter 53. WEBSERVICE resource definitions

A WEBSERVICE resource definition defines aspects of the run time environment for a CICS application program deployed in a web services setting, where mapping between application data structure and SOAP messages has been generated using the CICS Web services assistant. See *CICS Resource Definition Guide* for more information about WEBSERVICE resource definitions in CICS.

You need to use the Web User Interface (WUI) to define WEBSERVICE resource definitions in CICSplex SM. There are no corresponding EUI views.

### Working with WEBSERVICE definitions

WEBSERVICE resource definitions can be defined for CICS TS 3.1 and later systems.

To display information about existing WEBSERVICE definitions from the WUI main menu, click **Administration views** → **Basic CICS resource administration views** → **CICS resource definitions** → **Web service definitions**. This opens the **Web service definition** tabular view (EYUSTARTWEBSVDEF.TABULAR). Click on one of the displayed Web service definition names to open a detailed view of the selected resource definition. All of the fields are nonmodifiable.

Table 37 summarizes the actions you can perform from the **Web service definition** tabular or detailed view.

Table 37. Web service definition view action commands

Action command button	Description
<b>Add to resource group</b>	Add a WEBSERVICE definition to a resource group.
<b>Create</b>	Create a WEBSERVICE definition and add it to the data repository.
	This opens a detailed view of a preselected resource. All of the fields are modifiable.
<b>Install</b>	Install a WEBSERVICE definition in an active system.
<b>Remove</b>	Remove a WEBSERVICE definition from the data repository.
<b>Update</b>	Update a WEBSERVICE definition in the data repository.
	This opens a detailed view of a preselected resource. Most of the fields are modifiable.

See *CICS Resource Definition Guide* for an explanation of the WEBSERVICE attributes you need to specify when creating and updating WEBSERVICE definitions. See *CICSplex System Manager Resource Tables Reference* for a list of the corresponding WEBSERVICE resource table attributes.

After installation of a WEBSERVICE resource definition, you can enquire about the resulting object using:

- The WUI **Web service** view (EYUSTARTWEBSERV); from the WUI main menu, click **CICS operations views** → **TCP/IP service operations views** → **Web service**.

## WEBSERVICE

- The CICS CEMT INQUIRE WEBSERVICE command; see *CICS Supplied Transactions*.
- The EXEC CICS INQUIRE URIMAP command; see *CICS System Programming Reference*.

---

## Chapter 54. RASGNDEF (resource assignments) view

A resource assignment describes the characteristics of selected resource definitions and how those resources are to be assigned to CICS systems.

The resource definitions to be assigned must be of a single resource type (such as FILE) and must be associated with a resource group. The resource assignment identifies which resource definitions in the group are selected and to which CICS systems they are assigned. A single resource definition can be assigned as both a local and remote resource in multiple CICS systems. A resource assignment must be associated with at least one resource description (RESDESC) before any assignment can begin.

---

### Accessing the RASGNDEF view

To display information about existing resource assignments:

**Issue the command:**

```
RASGNDEF [rasgn [resgroup [restype [target]]]]
```

where:

*rasgn* Is the specific or generic name of a resource assignment, or \* (asterisk) for all assignments.

*resgroup*  
Is the specific or generic name of a resource group or \* (asterisk) for all groups.

*restype*  
Is the specific or generic name of a resource type or \* (asterisk) for all types.

*target* Is the specific or generic name of a CICS system or CICS system group that is the target scope of the resource assignments.

If no parameters are specified, the view, illustrated in Figure 115 on page 346, includes information about all resource assignments within the current context.

**Select:**

RASGNDEF from the ADMBAS menu.

```

27FEB2005 19:33:51 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =RASGNDEF=====EYUPLX01=EYUPLX01=27FEB2005==19:33:51=CPSM=====9==
CMD Name      ResGroup ResType Target Usage Related Description
-----
EYUBAA03 EYUBAG01 FILEDEF EYUCSG03 REMOTE EYUMAS4A SSET - Allocate the Fil
EYUBAA04 EYUBAG02 TRANDEF EYUMAS1A REMOTE EYUCSG03 SSET - Allocate the Tra
EYUBAA05 EYUBAG02 PROGDEF EYUCSG03 LOCAL          SSET - Allocate the Pro
EYUBAA12 EYUBAG05 PROGDEF EYUCSG01 LOCAL          SSET - Autoinst Program
EYUBAA13 EYUBAG06 TERMDEF EYUCSG01 LOCAL
EYUBAA14 EYUBAG06 TYPTMDEF EYUCSG01 LOCAL
EYUBAA15 EYUBAG06 PROGDEF EYUCSG01 LOCAL
EYUBAA16 EYUBAG06 TRANDEF EYUCSG01 LOCAL
EYUBAA17 EYUBAG06 TSMDEF  EYUCSG01 LOCAL          TSModel definition assign

```

Figure 115. The RASGNDEF view

## Working with the RASGNDEF view

The topics covered by this section are:

- “Action commands” for the RASGNDEF view
- “Hyperlink fields” on page 347 from the RASGNDEF view.

### Action commands

Table 38 summarizes the action commands you can use with the RASGNDEF view.

Table 38. RASGNDEF view action commands

Primary command	Line command	Description
ADD <i>rasgn</i>	ADD	Add an association between a resource assignment and a resource description, as described in “Adding a resource assignment to a resource description” on page 348.
n/a	BRO	Browse a resource assignment.
		The format of the resulting panels is similar to that shown in Figure 116 on page 347 and Figure 117 on page 348. All of the fields are nonmodifiable.
CREate	CRE	Create a resource assignment and add it to the data repository, as described in “Creating a resource assignment” on page 347.
n/a	MAP	Display a visual map of business application services definitions using the specified assignment as a starting point.
REMOve <i>rasgn</i>	REM	Remove a resource assignment from the data repository.
n/a	UPD	Update a resource assignment in the data repository.
		The format of the resulting panels is similar to that shown in Figure 116 on page 347 and Figure 117 on page 348. Most of the fields are modifiable.

## Hyperlink fields

Table 39 shows the hyperlink field on the RASGNDEF view.

Table 39. RASGNDEF view hyperlink field

Hyperlink field	View displayed	Description
ResGroup	RESINGRP	Displays the resources associated with the specified resource group.

## Creating a resource assignment

To define a resource assignment:

1. Issue the create primary (CREate) or line (CRE) action command from the RASGNDEF view.
2. Fill in the first panel, illustrated in Figure 116, which prompts you to provide information about the type of CICS resource, how the resources are accessed and used, and to which CICS systems or CICS system groups the resources are to be assigned:

COMMAND ==>

```

Name          ==> EYUBAA03
Description    ==> SSET - Assign File Defs

Target Scope   ==>          CICS System or System Group
Related Scope  ==>          CICS System or System Group

Resource Group ==>          RESGROUP Containing definitions
Resource Type  ==>          Resource Definition Type

Usage          ==> LOCAL    Assignment type (LOCAL,REMOTE,LINK)
Mode           ==> N/A      Usage Qualifier by Resource Type
Referenced Assign ==>      Resource Assignment Definition name
Override       ==> RELATED  Scope of override (TARGET,RELATED,BOTH,
                             NONE)
  
```

Press ENTER to create Resource Assignment.  
 Type UP or DOWN to view other screens.  
 Enter END or CANCEL to cancel without creating.

Figure 116. Creating a resource assignment - Page 1

3. If the resource assignment is complete, press Enter. If you want to specify a filter or override expression for the resources, issue the DOWN command.
4. Fill in the fields on the second panel (see Figure 117 on page 348):

```

COMMAND  ===>

Name                      EYUBAA03

Filter string expression:  (Type FILTER to list columns)
===> NAME='A+B*'.
===>
===>
===>
===>
===>
===>

Override string expression: (Type MODIFY to list modifiable columns)
===> DSNAME='CVM.TEST.FILE',STRINGS=4.
===>
===>
===>

Press ENTER to create Resource Assignment.
Type UP or DOWN to view other screens.
Enter END or CANCEL to cancel without creating.

```

Figure 117. Creating a resource assignment - Page 2

5. Press Enter to add the resource assignment to the data repository.

## Adding a resource assignment to a resource description

To add a resource assignment to a resource description:

1. Issue the add primary or line action command (ADD) from the RASGNDEF view.
2. Fill in the fields on the panel (see Figure 118):

```

COMMAND  ===>

Assignment Name  ===> EYUBAA01

Description Name ===>

Description      ===>

Group Name       ===>

Target Scope     ===>

Related Scope    ===>

Press ENTER to add Assignment to Description.
Enter END or CANCEL to cancel without adding.

```

Figure 118. Adding a resource assignment to a resource description

3. Press ENTER to add the assignment to the resource description. Otherwise, issue either the END or the CANCEL command to return without adding the resource assignment to the resource description.

### Notes:

1. If you do not specify values for the Group Name, Target Scope, and Related Scope fields on this panel, you must do so on the associated RASGNDEF or RESDESC definition.
2. Adding a resource assignment to a resource description could result in inconsistent resource set or inconsistent scope errors. For information about



these types of problems and how to resolve them, see “Validation of a set of resources” on page 37 and “Validation CICS system assignments” on page 39.

## Resource assignment attribute descriptions

Provide the following information, as appropriate:

### Assignment Name

The specific or generic name of an existing resource assignment that you want to associate with a resource description. If you enter a generic value, a list of valid resource assignments is displayed.

### Description

(Optional.) A 1- to 30-character description of a resource assignment or a resource assignment-to-description association..

### Description Name

The specific or generic name of an existing resource description with which a resource assignment is to be associated. If you enter a generic value, a list of valid resource descriptions is displayed.

### Filter string expression

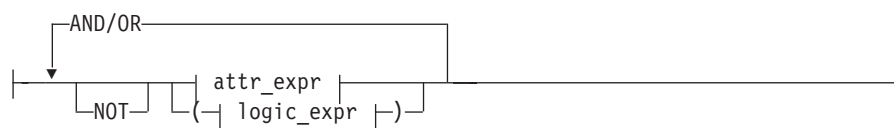
(Optional.) Identifies attributes that are to be used in selecting resources to be assigned. CICSplex SM processes only those resources that meet the specified filter criteria.

A filter expression can be made up of one or more attribute expressions in the form:

### Filter Expression

►► | logic\_expr | .—————►►

### logic\_expr:



### attr\_expr:

| attr\_op value |—————|

where:

**attr** Is the name of an attribute in the resource table for the specified resource. You can name the same attribute more than once in a filter expression.

**oper** Is one of the following comparison operators:

<	Less than
<=	Less than or equal to
=	Equal to
>=	Greater than or equal to
>	Greater than
≠	Not equal to

**value** Is the value for which the attribute is being tested. The value must be a valid one for the attribute.

If the attribute accepts character data, this value can be generic. Generic values can contain:

- An asterisk (\*), to represent any number of characters, including zero. The asterisk must be the last or only character in the specified value. For example:

```
TRANID=PAY*
```

- A plus sign (+), to represent a single character. A + can appear in one or more positions in the specified value. For example:

```
TRANID=PAY++96
```

If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes. For example:

```
TERMID='Z AB'
```

To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October''s Payroll'
```

## AND/OR

Combines attribute expressions into compound logic expressions using the logical operators AND and OR, like this:

```
attr_expr AND attr_expr.
```

Filter expressions are evaluated from left to right. You can use parentheses to vary the meaning of a filter expression. For example, this expression:

```
attr_expr AND (attr_expr OR attr_expr).
```

has a different meaning than this one:

```
(attr_expr AND attr_expr) OR attr_expr.
```

**NOT** Negates one or more attribute expressions.

You can negate a single attribute expression, like this:

```
NOT attr_expr
```

You can also negate multiple attribute expressions or even a whole filter expression, like this:

```
NOT (attr_expr OR attr_expr).
```

Note that you must place parentheses around the attribute expressions (or the filter expression) to be negated.

To see a list of the resource attributes, type FILTER in the COMMAND field and press Enter.

## Group Name

The specific or generic name of a resource group that contains, or will contain, resource definitions to be processed by a resource assignment. If you enter a generic value, a list of all resource groups is displayed.

**Mode** For some resource types, CICSplex SM requires additional information to

determine which subset of resource attributes to use in processing a resource assignment. The Mode value you should specify depends on the resource type being assigned:

#### Programs (PROGDEF)

If you specified LOCAL in the Usage field, you can specify AUTO to have CICS automatically install programs into a system. AUTO means that no explicit definition of the programs is required in the CICS system. Otherwise, specify N/A.

If REMOTE is specified in the Usage field, you can identify how the program is to be routed:

##### DYNAM

Programs are processed by the dynamic routing program (DTR).

**STAT** Programs are sent to the remote CICS system identified in the Related Scope

#### Transactions (TRANDEF)

You can specify whether or not the transaction should be processed by the dynamic routing program. If the Usage field contains REMOTE, a Mode must be specified.

##### DYNAM

Transactions are processed by the dynamic routing program.

**STAT** Each transaction should be sent to the remote CICS system identified in the transaction definition (TRANDEF). This mode may be specified only if the Usage field contains REMOTE.

**Note:** The value you specify when creating a resource assignment overrides the Dynamic value in the TRANDEF.

#### Transient data queues (TDQDEF)

You can identify the type of transient data queue to be assigned:

##### EXTRA

Extrapartition TDQ.

**IND** Indirect TDQ.

##### INTRA

Intrapartition TDQ.

If you specify N/A, CICSplex SM uses the Type value in the TDQDEF to assign the transient data queue. If the Type value is REMOTE, CICSplex SM assigns an indirect TDQ.

For all other resources, specify N/A because no Mode data is required.

**Name** A 1- to 8-character name for the resource assignment. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

#### Override

If you plan to specify an override expression for the resources, indicate to which scope the override values should be applied:

**NONE** Do not apply any override values.

**BOTH** Apply the override values to both scopes.

**RELATED**

Apply the override values to the Related Scope only.

**TARGET**

Apply the override values to the Target Scope only.

**Override string expression**

(Optional.) Identifies attributes of the specified resources whose values are to be overridden when they are assigned to one or more scopes. (The value in the Override field determines which scope the override values are applied to.)

An override expression can be made up of one or more attribute expressions in the form:

**Override Expression**



where:

**attr** Is the name of a modifiable attribute for the resource.

**value** Is the value to which you want the attribute set. The following restrictions apply:

- The value must be a valid one for the attribute.
- If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes, like this:

```
DESCRIPTION='Payroll.OCT'
```

- To include a single quote or apostrophe in a value, you must repeat the character, like this:

```
DESCRIPTION='October''s Payroll'
```

To see a list of resource attributes that can be modified, type MODIFY in the COMMAND field and press Enter.

**Referenced Assign**

The resource assignment that applies to the related session definitions (SESSDEF) when a Resource Type field contains CONNDEF (for connections). For each connection, CICSplex SM requires one or more session definitions to construct the actual CICS link properly.

**Related Scope**

The specific or generic name of an existing CICS system to which remote resources are to be assigned as LOCAL, if you specify a Usage value of REMOTE. If you enter a generic value, a list of valid CICS systems is displayed.

If you specify a Usage value of REMOTE when you are creating a resource assignment, and you do not specify a Related Scope value, you must provide one in the associated RASINDSC or RESDESC definition.

**Notes:**

1. You must also specify a Related Scope value when assigning connections (CONNDEF) that reference other CICS systems in the same CICSplex.
2. For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the Related Scope value. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

**Resource Group**

The specific or generic name of an existing resource group that contains, or will contain, resource definitions of a specified type. If you enter a generic value, a list of all resource groups is displayed.

If you do not specify a Resource Group value when you are creating a resource assignment, you must provide one in the associated RASINDSC or RESDESC definition.

**Resource Type**

The type of resource to be processed by an assignment statement. For a list of valid resource types, see Figure 6 on page 21.

**Target Scope**

The specific or generic name of an existing CICS system or CICS system group to which the resources named in a resource assignment are to be assigned. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

If you do not specify a Target Scope value when creating a resource assignment, you must provide one in the associated RASINDSC or RESDESC definition.

**Usage** Specifies how the resources will be used:

**LOCAL**

The resources are contained within the target CICS system. LOCAL is valid for all supported resource types.

**REMOTE**

The resource definitions refer to resources that reside in a different CICS system. If you specify REMOTE, you must also specify a Related Scope value to identify the CICS system that will contain the local instances of the resources. REMOTE is valid only for the following resource types:

FILEDEF  
PROGDEF  
TDQDEF  
TRANDEF

**Notes:**

1. When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the Target Scope and Related Scope fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.
2. Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue's attributes is always a local resource. Therefore, when you install a temporary storage model definition, the Usage parameter must always specify

## **RASGNDEF**

LOCAL. See “Installing BAS temporary storage model definitions” on page 321. For a description of the TSMDEF Remote system attribute, see “Temporary storage model definition attributes” on page 321.

---

## Chapter 55. RASINDSC (resource assignments in a resource description) view

The RASINDSC view describes the membership of a resource assignment (RASGNDEF) in a resource description (RESDISC). A RASINDSC association is created automatically when a resource assignment is added to a resource description.

---

### Accessing the RASINDSC view

To display information about existing resource descriptions and the resource assignments associated with them:

**Issue the command:**

```
RASINDSC [resdesc [rasgn]]
```

where:

*resdesc*

Is the specific or generic name of a resource description or \* (asterisk) for all descriptions.

*rasgn* Is the specific or generic name of a resource assignment.

If no parameters are specified, the view, illustrated in Figure 119, includes information about all resource descriptions within the current context and the resource assignments associated with them.

**Select:**

RASINDSC from the ADMBAS menu.

```
27FEB2005 19:34:15 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
=W1 =RASINDSC=====EYUPLX01=EYUPLX01=27FEB2005==19:34:15=CPSM=====7==
CMD Name      Assign  ResGroup Target  Related Description
-----
EYUBAD02      EYUBAA04
EYUBAD02      EYUBAA05
EYUBAD05      EYUBAA12
EYUBAD05      EYUBAA13
EYUBAD05      EYUBAA14
EYUBAD05      EYUBAA15
EYUBAD05      EYUBAA16
```

Figure 119. The RASINDSC view

---

### Working with the RASINDSC view

The topics covered by this section are:

- “Action commands” for the RASINDSC view
- “Hyperlink fields” on page 356 from the RASINDSC view.

### Action commands

Table 40 on page 356 summarizes the action commands you can use with the RASINDSC view.

Table 40. RASINDSC view action commands

Primary command	Line command	Description
n/a	BRO	Browse the association between a resource description and a resource assignment.  The format of the resulting panel is similar to that shown in Figure 120. All of the fields are nonmodifiable.
n/a	MAP	Display a visual map of business application services definitions using the specified description as a starting point.
REMOve <i>resdesc rasgn</i>	REM	Remove the association between a resource description and a resource assignment.
n/a	UPD	Update the association between a resource description and a resource assignment, as described in "Updating a resource description-to-assignment association."

## Hyperlink fields

Table 41 shows the hyperlink fields on the RASINDSC view.

Table 41. RASINDSC view hyperlink fields

Hyperlink field	View displayed	Description
Assign	RASGNDEF	Displays the specified resource assignment.
ResGroup	RESINGRP	Displays the resources associated with the specified resource group.

## Updating a resource description-to-assignment association

To update a resource description-to-assignment association:

1. Issue the update (UPD) line action command from the RASINDSC view.
2. Fill in the panel, illustrated in Figure 120.

COMMAND ==>

Resource Description	EYUBAD01	Resource description definition
Resource Assignment	EYUBAA01	Resource assignment definition
Description	==>	
Resource Group	==> EYUBAG01	Optional Resource Group
Target Scope	==> EYUCSG03	Optional Target scope
Related Scope	==>	Optional Related scope

Press ENTER to update Resource Assignment in Description.  
Type END or CANCEL to cancel without updating.

Figure 120. Updating the association between a resource description and assignment

3. Press Enter to update the resource description-to-assignment association in the data repository.



**Notes:**

- a. If you do not specify values for the Resource Group, Target Scope, and Related Scope fields on this panel, you must do so on the associated RASGNDEF or RESEDESC definition.
- b. Updating a resource description-to-assignment association could result in inconsistent resource set or inconsistent scope errors. For information about these types of problems and how to resolve them, see “Validation of a set of resources” on page 37 and “Validation CICS system assignments” on page 39.

---

## Resource assignments in a resource description attribute descriptions

Provide the following information, as appropriate:

**Description**

(Optional.) A 1- to 30-character description of the resource description-to-assignment association.

**Related Scope**

(Optional.) The specific or generic name of an existing CICS system to which resources are to be assigned as LOCAL, if the Usage value in the resource assignment is REMOTE. If you enter a generic value, a list of valid CICS systems is displayed.

**Note:** For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the Related Scope value. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

**Resource Group**

(Optional.) The specific or generic name of a resource group that contains, or will contain resource definitions to be processed by a resource assignment. If you enter a generic value, a list of all resource groups is displayed.

**Target Scope**

(Optional.) The specific or generic name of an existing CICS system or CICS system group to which resources named in a resource assignment are to be assigned. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.



## Chapter 56. RASPROC (resource assignment process) view

The RASPROC view displays the resources that will be selected when the specified resource assignment is processed. Resources are selected based on the contents of the associated resource group and the selection criteria of the assignment itself.

### Accessing the RASPROC view

To display information about the expected results of the resource assignment process:

**Issue the command:**

RASPROC *rasgn*

where *rasgn* is the name of a resource assignment.

Figure 121 is an example of the RASPROC view.

**Select:**

RASPROC from the ADMBAS menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
>W1 =RASPROC=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3=====
CMD Resource Ver Type      Use      Mode Target  Related Assign  Group  Ref
-----
EYUFIL07      1 FILEDEF LOCAL  N/A  EYUCSG03      EYUBAA03 EYUBAG01
EYUFIL08      1 FILEDEF LOCAL  N/A  EYUCSG03      EYUBAA03 EYUBAG01
EYUFIL09      1 FILEDEF LOCAL  N/A  EYUCSG03      EYUBAA03 EYUBAG01
```

Figure 121. The RASPROC view (left side)

You can scroll to the right to see additional information, as shown in Figure 122.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
<W1 =RASPROC=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Resource Referenc Ref Type      Alias
----- Resource Ver -----
EYUFIL07
EYUFIL08
EYUFIL09
```

Figure 122. The RASPROC view (right side)

**Notes:**

1. Journal definitions (JRNLEDEF), file key segment definitions (FSEGDEF), and session definitions (SESSDEF) can appear in a RASPROC view; this is to present a complete picture of your logical scope. Note, however, that those resources are never actually installed in a CICS system.
2. Connection definitions (CONNDEF) can be installed in a CICS system only if they have associated SESSDEFs (as noted in the Referenc Resource field). If the Referenc Resource field for a CONNDEF is blank, the connection cannot be installed.

## Working with the RASPROC view

The topics covered by this section are:

- Figure 123 on page 363 for the RASPROC view
- “Hyperlink fields” from the RASPROC view

## Action commands

There are no actions for the RASPROC view.

## Hyperlink fields

Table 42 shows the hyperlink fields on the RASPROC view.

*Table 42. RASPROC view hyperlink fields*

Hyperlink field	View displayed	Description
Resource	xxxxDEF	Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).
Group	RESINGRP	Displays the resources associated with the specified resource group.
Referenc Resource	xxxxDEF	Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).

## RASPROC view attribute descriptions

The fields displayed are:

**Alias** Alias for a remote definition.

### Assign

The name of the resource assignment.

**Group** The name of the resource group to which the resource definition belongs.

**Mode** The value in this field depends on the resource type being processed. See page 350.

### Referenc Resource

Referenced resource definition name.

### Ref Ver

Referenced resource definition version.

### Related

If the Use field contains REMOTE, this is the name of the CICS system or CICS system group that holds the local definition of the resource.

### Resource

The name of the resource definition

**Target** The name of an existing CICS system or CICS system group into which the resource is to be installed.

**Type** The resource type or the referenced resource definition type.

**Use** Whether the resource usage is local or remote.

**Version**  
The resource definition version.



## Chapter 57. RDSCPROC (resource description process) view

The RDSCPROC view displays the resources that will be selected when the specified resource description is processed. Resources can be selected from:

- Resource assignments that are currently associated with the resource description
- Resource groups that are directly associated with the resource description (via RESINDSC)

### Accessing the RDSCPROC view

To display information about the expected results of the resource description process:

**Issue the command:**

```
RDSCPROC resdesc
```

where *resdesc* is the name of a resource description.

Figure 123 is an example of the RDSCPROC view.

**Select:**

RDSCPROC from the ADMBAS menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =RDSCPROC=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3=====
CMD Resource Ver Type Use Mode Target Related Assign Group ResD
-----
EYUFIL07 1 FILEDEF LOCAL N/A EYUCSG03 EYUBAA03 EYUBAG01 EYUB
EYUTRN08 2 TRANDEF LOCAL N/A EYUCSG03 EYUBAA03 EYUBAG01 EYUB
EYUPRG09 1 PROGDEF LOCAL N/A EYUCSG03 EYUBAA03 EYUBAG01 EYUB
EYUTSM01 1 TSMDEF LOCAL N/A EYUCSG03 EYUBAA04 EYUBAG01 EYUB
EYUTSM02 3 TSMDEF LOCAL N/A EYUCSG03 EYUBAA04 EYUBAG01 EYUB
```

Figure 123. The RDSCPROC view (left side)

You can scroll to the right to see additional information, as shown in Figure 124.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
<W1 =RDSCPROC=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD Resource ResDesc Referenc Ref Type Alias
-----
EYUFIL07 EYUBAD01
EYUTRN08 EYUBAD01
EYUPRG09 EYUBAD01
```

Figure 124. The RDSCPROC view (right side)

#### Notes:

1. When the name in the Resource column is that of a DB2TDEF, the Referenced Resource column can contain the name of a DB2EDEF. What has happened in such cases is that CICSplex SM has created a 'ghost' DB2TDEF entry that will result in a DB2TRAN object when that DB2EDEF is installed. This situation arises when a transaction id was specified in the DB2EDEF. In this case, the

Referenced Resource field contains details of the DB2EDEF that generated the DB2TDEF, and the Type field contains 'DB2EDEF'.

2. Journal definitions (JRNLEDEF), file key segment definitions (FSEGDEF) and session definitions (SESSDEF) can appear in the RDSCPROC view; this is to present a complete picture of your logical scope. Note, however, that those resources are never actually installed in a CICS system.
3. Connection definitions (CONNDEF) can be installed in a CICS system only if they have associated SESSDEFs (as noted in the Referenc Resource field). If the Referenc Resource field for a CONNDEF is blank, the connection cannot be installed.

---

## Working with the RDSCPROC view

The topics covered by this section are:

- “Action commands”
- “Hyperlink fields.”

### Action commands

There are no actions for the RDSCPROC view.

### Hyperlink fields

Table 43 shows the hyperlink fields on the RDSCPROC view.

*Table 43. RDSCPROC view hyperlink fields*

Hyperlink field	View displayed	Description
Resource	xxxxDEF	Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).
Group	RESINGRP	Displays the resources associated with the specified resource group.
Referenc Resource	xxxxDEF	Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).

---

## RDSCPROC view attribute descriptions

The fields displayed are:

**Alias** Alias for a remote definition.

**Assign**

The name of the resource assignment.

**Group** The name of the resource group to which the resource definition belongs.

**Mode** The value in this field depends on the resource type being processed. See page 350.

**Referenc Resource**

Referenced resource definition name.



**Ref Ver**

Referenced resource definition version.

**Related**

If the Use field contains REMOTE, this is the name of the CICS system or CICS system group that holds the local definition of the resource.

**Resource**

The name of the resource definition

**Target** The name of an existing CICS system or CICS system group into which the resource is to be installed.

**Type** The resource type or referenced resource definition type..

**Use** Whether the resource usage is local or remote.

**Version**

The resource definition version.



## Chapter 58. RESDESC (resource descriptions) view

A resource description identifies a set of logically related resource definitions that can be:

- Installed in CICS systems that support resource installation
- Named as the scope for CICSplex SM requests

### Accessing the RESDESC view

To display information about existing resource descriptions,

**Issue the command:**

RESDESC [*resdesc*]

where *resdesc* is a specific or generic resource description name. If you omit this parameter, the view, illustrated in Figure 125, includes information about all resource descriptions within the current context.

**Select:**

RESDESC from the ADMBAS menu.

```
27FEB2005 19:33:51 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 =RESDESC=====EYUPLX01=EYUPLX01=27FEB2005==19:33:51=CPSM=====4===
CMD Name      Scope  Scope  Description
-----
EYUBAD01 YES    WLMIVP SSET - WLM IVP Application
EYUBAD02 YES    CPUONLY SSET - CPU Only Application
EYUBAD05 YES    COMMON  SSET - Common Definitions
EYUBAD09 NO
```

Figure 125. The RESDESC view

### Working with the RESDESC view

The topics covered by this section are:

- “Action commands” for the RESDESC view
- “Hyperlink fields” on page 368 from the RESDESC view.

### Action commands

Table 44 summarizes the action commands you can use with the RESDESC view.

Table 44. RESDESC view action commands

Primary command	Line command	Description
n/a	BRO	Browse a resource description.  The format of the resulting panels is similar to that shown in Figure 126 on page 369 and Figure 127 on page 369. All of the fields are nonmodifiable.
CREate	CRE	Create a resource description and add it to the data repository, as described in “Creating a resource description” on page 368.

## RESDESC

Table 44. RESDESC view action commands (continued)

Primary command	Line command	Description
n/a	INS	For systems running either CICS/ESA 4.1 and later, install the resources associated with the resource description into active systems, as described in “Installing resource descriptions” on page 78.
n/a	MAP	Display a visual map of business application services definitions using the specified description as a starting point.
REMove <i>resdesc</i>	REM	Remove a resource description from the data repository.
n/a	REP	For systems running CICS/ESA 4.1 or later, replace the resources associated with one resource description with the resources associated with another description, as described in “Replacing a resource description” on page 370.
n/a	UPD	Update a resource description in the data repository.  The format of the resulting panels is similar to that shown in Figure 126 on page 369 and Figure 127 on page 369. Most of the fields are modifiable.

## Hyperlink fields

Table 45 shows the hyperlink field on the RESDESC view.

Table 45. RESDESC view hyperlink field

Hyperlink field	View displayed	Description
Name	RASINDSC	Displays the resource assignments associated with the specified resource description.

## Creating a resource description

To create a resource description:

1. Issue the create primary (CREate) or line (CRE) action command from the RESDESC view.
2. Fill in the first panel, illustrated in Figure 126 on page 369.

```

COMMAND  ==>

      Name          ==> EYUBAD03
      Description    ==> SSET - Test Application

      Valid Scope    ==> NO          Add to Topology Scope Set (YES,NO)
      Scope Name      ==>          Name to be used as Scope

      Model          ==>          Resource Description copy model

      ResGroup Scope  ==>          Scope applied to associated ResGroups

      Auto Install    ==> NO          Add Description Resources to Scope

Press ENTER to create Resource Description.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 126. Creating a resource description - Page 1

3. If the resource description is complete, press Enter. If you want to specify replacement values for the resource assignments associated with the resource description, issue the DOWN command.
4. Fill in the fields on the second panel as shown in Figure 127.

```

COMMAND  ==>

Name      EYUBAD03

ResType    ResGroup  Target  Related
-----
CONNDEF    =>
DB2CDEF    =>
DB2EDEF    =>
DB2TDEF    =>
DOCDEF     =>
EJCDEF     =>
EJDJDEF    =>
ENQMDEF    =>
FENODDEF   =>
FEPODEF    =>
FEPRODEF   =>
FETRGDEF   =>
FILEDEF    =>
FSEGDEF    =>
JRNLEDEF   =>
JRNMDEF    =>
LSRDEF     =>
MAPDEF     =>
PARTDEF    =>
PROCDEF    =>
PROFDEF    =>
PROGDEF    =>
PRTNDEF    =>
RQMDEF     =>
SESSDEF    =>
TCPDEF     =>
TDQDEF     =>
TERMDEF    =>
TRNCLDEF   =>
TRANDEF    =>
TSMDEF     =>
TYPTMDEF   =>

Press ENTER to create Resource Description.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.

```

Figure 127. Creating a resource description - Page 2

The replacement values you specify on a resource description are used only if the same fields on the associated RASGNDEF and RASINDSC definitions are blank. That is:

- Any values that are explicitly defined in the resource assignment (RASGNDEF) are used.
- For any fields that are blank in the RASGNDEF definition, the values found in the RASINDSC are used.
- For any fields that are blank in the both the RASGNDEF and RASINDSC definitions, the values you specify here are used.

**Note:** For each of the fields on this panel, if you do not specify a value here, you must specify a value on the associated RASGNDEF or RASINDSC definition.

5. Press Enter to add the resource description to the data repository.

## Replacing a resource description

To replace a resource description:

1. Issue the replace line action command (REP) from the RESDESC view.
2. Fill in the panel, illustrated in Figure 128.

COMMAND ==>

Name	EYUBAD02	Description to be installed
Installed Name ==>	EYUBAD03	Description to be replaced
Notify ==>	NO	Precheck (INACTIVE,RELEASE,FULL,NO)
State Check ==>	NO	Consistent State (YES,NO)
Force Install ==>	NO	Unconditional Install (YES,NO)

Press ENTER to replace Resource Description.  
 Enter END or CANCEL to cancel without replacing.

Figure 128. Replacing a resource description

3. Press Enter to replace the resource description in active CICS systems.

When you use the replace line action command (REP) from the RESDESC view, CICSplex SM attempts to replace all of the resources associated with an installed resource description with the resources associated with a new description. That is, CICSplex SM:

- Discards any resources that are associated with the old resource description, but not the new one.
- Reinstalls any resources that are associated with both the old resource description and the new one.
- Installs any additional resources that are associated with the new resource description.

For replacement to occur, the CICS systems named in the Target and Related scope fields of both resource descriptions must be active and must be running a release of CICS that supports the EXEC CICS CREATE command.

**Note:** For information on what happens if your request does not complete successfully, see “Handling dynamic installation errors in the EUI” on page 96.

## Resource descriptions attribute descriptions

### Auto Install

Specifies whether or not the set of resource definitions referenced by this description and its associated resource assignments and resource groups are to be automatically installed when a target MAS connects to the CICSplex.

**NO** The set of resource definitions, resource groups and resource assignments is not to be automatically installed.

**YES** The set of resource definitions, resource groups and resource assignments is to be automatically installed.

**Note:** The CICSSYS definition for a target MAS also affects whether resources are automatically installed. The Install Resources value determines if and when resources can be installed in that system.

### Description

(Optional.) A 1- to 30-character description of the resource description.

### Force Install

Indicates whether or not you want to install the resources even if CICSplex SM believes they do not need to be installed.

**NO** Do not force the installation of resources.

**YES** Force the installation of resources.

Normally, CICSplex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSplex SM does not install the resource, to avoid inadvertently changing attributes of an active resource.

If you specify YES in this field, CICSplex SM bypasses this duplicate resource checking and installs the new resource unconditionally.

### Installed Name

The specific or generic name of a currently installed resource description that is to be replaced. If you enter a generic value, a list of valid resource descriptions is displayed.

**Model** (Optional.) The specific or generic name of an existing resource description whose resource assignments are to be used by the new description. If you enter a generic value, a list of valid resource descriptions is displayed.

**Name** A 1- to 8-character name for the resource description. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

**Notify** Specifies the type of checking to be performed before attempting to install resources in the CICS systems associated with a new resource description:

**NO** No checking is performed.

**FULL** Perform both INACTIVE and RELEASE checking.

#### INACTIVE

Check for CICS systems in the target scope that are not currently active.

#### RELEASE

Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

### Related

The specific or generic name of an existing CICS system to which remote resources are to be assigned as LOCAL, if the Usage value in the resource assignment is REMOTE. If you enter a generic value, a list of valid CICS systems is displayed.

**Note:** For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the Related scope value. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

### ResGroup

The specific or generic name of a resource group that contains, or will contain, resource definitions of a specified type. If you enter a generic value, a list of all resource groups is displayed.

### ResGroup Scope

The specific or generic name of an existing CICS system or CICS system group with which you want to associate a set of resource definitions referenced by a description, and the resource groups that are directly associated with it (via RESINDSC). If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

The resource definitions are associated “as is” with the specified scope; no assignment or override processing is performed.

### Scope Name

A 1- to 8-character name used to identify the scope in end-user interface and API requests. The scope name must be unique within the CICSplex.

### State Check

Indicates whether or not the existence and operational state of all resources are to be checked before an EXEC CICS CREATE command is issued.

**NO** The existence and operational state of all resources are not to be checked.

**YES** The existence and operational state of all resources are to be checked.

**Target** The specific or generic name of an existing CICS system or CICS system group to which resources are to be assigned. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

### Valid Scope

Specifies whether or not a resource description is to be registered with Topology Services as a logical scope.

**NO** The resource description is not to be registered with Topology Services as a logical scope.

**YES** The resource description is to be registered with Topology Services as a logical scope. If you specify YES, the name you specify in the Scope Name field can be used as a scope value for end-user interface and API requests.



# Chapter 59. RESGROUP (resource groups) view

A resource group is used to associate one or more related resource definitions. The resource definitions in a resource group can be for the same or different resource types.

## Accessing the RESGROUP view

To display information about existing resource groups:

**Issue the command:**

RESGROUP [*resgroup*]

where *resgroup* is a specific or generic resource group name. If you omit this parameter, the view, illustrated in Figure 129, includes information about all resource groups within the current context.

**Select:**

RESGROUP from the ADMBAS menu.

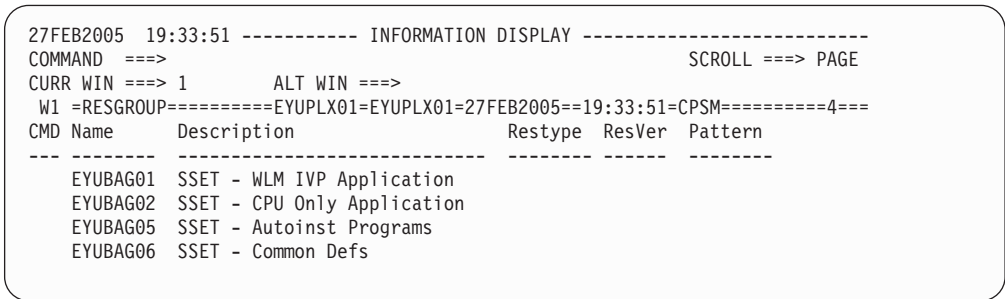


Figure 129. The RESGROUP view

## Working with the RESGROUP view

The topics covered by this section are:

- “Action commands” for the RESGROUP view.
- “Overtypes commands” on page 374 for the RESGROUP view.
- “Hyperlink fields” on page 374 from the RESGROUP view.

## Action commands

Table 46 summarizes the action commands you can use with the RESGROUP view. Table 47 on page 374 identifies the overtype fields that you can use with the RES action command.

Table 46. RESGROUP view action commands

Primary command	Line command	Description
n/a	ADD	Add an association between a resource group and a resource description, as described in “Adding a resource group to a resource description” on page 377.
n/a	BRO	Browse a resource group definition. Neither of the fields is modifiable.
CREate	CRE	Create a resource group and add it to the data repository, as described in “Creating a resource group” on page 375.

## RESGROUP

Table 46. RESGROUP view action commands (continued)

Primary command	Line command	Description
n/a	INS	For systems running either CICS/ESA 4.1 and later, install the resources associated with the resource group in an active system, as described in “Installing resource groups” on page 72.
n/a	MAP	Display a visual map of business application services definitions using the specified group as a starting point.
REMove <i>resgroup</i>	REM	Remove a resource group from the data repository. <b>Note:</b> You cannot remove a resource group if it is currently named in a resource description, resource assignment, or description-to-assignment association. You must first identify a new resource group or remove the RESDESC, RASGNDEF, or RASINDSC definition altogether.
n/a	RES	Add multiple resource definitions of the specified type to a resource group, as described in “Adding resource definitions to a resource group” on page 375.  When you issue the RES command, you can enter a resource type value in the Restype field. If you omit the resource type at this stage, a selection list is displayed showing available resource types.  You can also specify a version number in the ResVer field and a generic resource name in the Pattern field to limit the list of resource definitions that is displayed. <b>Note:</b> To add a single resource definition to a resource group, you can use the ADD action command from the appropriate resource definition view (for example, the FILEDEF view to add a file definition).
n/a	UPD	Update a resource group definition. Only the Description field is modifiable; you cannot change the resource group name.

## Overtyping commands

Table 47. RESGROUP view overtyping fields

Field name	Value
Restype	The type of resource definitions to be added to the group. For a list of valid resource types, see Figure 6 on page 21.
ResVer	A version number in the range 1 to 15, to limit the list to resource definitions of the specified version.
Pattern	A generic resource name, to limit the list to resource definitions that match the specified pattern.

## Hyperlink fields

Table 48 shows the hyperlink field on the RESGROUP view.

Table 48. RESGROUP view hyperlink field

Hyperlink field	View displayed	Description
Name	RESINGRP	Displays the resources associated with the specified resource group.

---

## Creating a resource group

To create a resource group:

1. Issue the primary create (CREate) or line (CRE) action command from the RESGROUP view.
2. Fill in the panel, illustrated in Figure 130.

COMMAND ==>

Name ==> EYUBAG04

Description ==> SSET - Test Group

Model Group ==>

Copy Resources ==> NO (ASSOCIATIONS, MEMBERS, NO)

Press ENTER to create RESGROUP.

Type END or CANCEL to cancel without creating.

*Figure 130. Creating a resource group*

3. Press Enter to add the resource group to the data repository.

---

## Adding resource definitions to a resource group

To add resource definitions to a resource group:

1. Issue the resource line action command (RES) from the RESGROUP view and enter a resource type value in the Restype field when you do this.
2. If you do not enter a value in the Restype field, or enter an invalid value, the selection list shown in Figure 131 on page 376 appears.

```

COMMAND ==>                                Scroll ==> PAGE
Resource Type requires a specific value.
Select a single entry or enter END or CANCEL to terminate.

    Available values for Table: RESGROUP  Attribute: RESTYPE

C Value
-----
- CONNDEF
- DB2CDEF
- DB2EDEF
- DB2TDEF
- DOCDEF
- EJCODEF
- EJDJDEF
- ENQMDEF
- FENODDEF
- FEPODEF
- FEPRODEF
- FETRGDEF
- FILEDEF
- FSEGDEF
- JRNLDEF
- JRNMDEF
- LSRDEF
- MAPDEF
- PARTDEF
- PROCDEF
- PROFDEF
- PROGDEF
- PRTNDEF
- RQMDEF
- SESSDEF
- TCPDEF
- TDQDEF
- TERMDEF
- TRANDEF
- TRNCLDEF
- TSMDEF
- TYPTMDEF

```

Figure 131. Selecting a resource type

3. Select a resource type from this list by typing an S (for select) to the left of the value and pressing Enter.
4. Once you have identified the type of resource definitions to be added to the group, the selection list shown in Figure 132 appears.

```

COMMAND ==>                                Scroll ==> PAGE

Resource Group      EYUBAG04
Resource Type       CONNDEF

Sel   Name      Ver Description                      Error
---   -
      C00A       1 System A Connection
      C00A       2 System A Connection - Test
      C00C       1 System C Connection

```

Figure 132. Selecting resource definitions to be added to a resource group

This panel provides the following information:

**Resource Group**

The name of the resource group to which resource definitions are to be added.

**Resource Type**

The resource type that you specified in the Restype field when you issued the RES command.

The remainder of the panel lists resource definitions of the specified type. If you also specified a version in the ResVer field or a generic resource name in the Pattern field of the RESGROUP view when you issued the RES command, the list is limited to definitions that match your criteria.

For each resource definition, the following information is provided:

**Name** The name of the resource definition.

**Ver** The version level of the definition.

**Description**

A description of the definition, if one was supplied when it was created.

5. Select one or more resource definitions from this list by typing an S (for select) to the left of the definitions. You can use the UP and DOWN commands (or equivalent PF keys) to scroll the selection list.

**Note:** If you type a character other than S in the Sel field, the message “Invalid Selection” appears in the Error field. When you change the invalid character to an S and press Enter, the message is removed.

6. Once you have made all of your selections, press Enter to add the resource definitions to the resource group in the data repository. To cancel the request without adding any resource definitions, issue the END command.

**Note:** Adding resource definitions to a resource group could result in inconsistent resource set errors. For information about this type of problem and how to resolve it, see “Validation of a set of resources” on page 37.

---

## Adding a resource group to a resource description

To add a resource group to a resource description:

1. Issue the add line action command (ADD) from the RESGROUP view.
2. Fill in the panel, illustrated in Figure 133.

COMMAND ==>

Resource Group ==> EYUBAG04

Resource Description ==> EYUBAD03

Description ==>

Press ENTER to add Group to Description.  
Type END or CANCEL to cancel without adding.

*Figure 133. Adding a resource group to a resource description*

3. Press Enter to add the resource group to the specified resource description in the data repository.

**Note:** Adding a resource group to a resource description could result in inconsistent resource set errors. For information about this type of problem and how to resolve it, see “Validation of a set of resources” on page 37.

---

## Resource group attribute descriptions

### Copy Resources

The definitions which are to be copied from the model resource group to the new group if a model group was specified:

**NO** Do not copy any definitions from the model group.

### ASSOCIATIONS

Copy the associations between resource definitions and the model group (RESINGRP definitions) and create a new set of associations from the existing resources to the new group.

### MEMBERS

Copy all the resource definitions in the model group and create a new set for use by the new group.

### Description

(Optional.) A 1- to 30-character description of a resource group or of an association of a resource group with a description.

### Model Group

(Optional.) The specific or generic name of an existing resource group whose resource definitions are to be used by a new group. If you enter a generic value, a list of all resource groups is displayed.

**Name** A 1- to 8-character name of a resource group. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

### Resource Description

The specific or generic name of an existing resource description with which a resource group is to be associated. If you enter a generic value, a list of valid resource descriptions is displayed.

### Resource Group

The name of a resource group to which resource definitions are to be added or which is to be associated with a resource description.

### Resource Type

The type of resource definitions to be added to a resource group..

**Ver** The version level of a resource definition.

# Chapter 60. RESINDSC (resource groups in description) view

The RESINDSC view describes the membership of a resource group (RESGROUP) in a resource description (RESDISC). A RESINDSC association is created automatically when a resource group is added to a resource description, that is, there is no association between the resource description and a resource assignment (RASGNDEF).

## Accessing the RESINDSC view

To display information about existing resource descriptions and the resource groups associated with them:

**Issue the command:**

RESINDSC [*resdesc* [*resgroup*]]

where:

*resdesc*

Is the specific or generic name of a resource description or \* (asterisk) for all descriptions.

*resgroup*

Is the specific or generic name of a resource group.

If no parameters are specified, the view, illustrated in Figure 134, includes information about all resource descriptions within the current context and the resource groups associated with them.

**Select:**

RESINDSC from the ADMBAS menu.



Figure 134. The RESINDSC view

## Working with the RESINDSC view

The topics covered by this section are:

- “Action commands” for the RESINDESC view.
- “Hyperlink fields” on page 380 from the RESINDESC view.

### Action commands

Table 49 on page 380 summarizes the action commands you can use with the RESINDSC view.

Table 49. RESINDSC view action commands

Primary command	Line command	Description
n/a	BRO	Browse the association between a resource description and a resource group.
n/a	MAP	The format of the resulting panel is similar to that shown in Figure 135. All of the fields are nonmodifiable. Display a visual map of business application services definitions using the specified description as a starting point.
REMove <i>resdesc resgroup</i>	REM	Remove the association between a resource description and a resource group.
n/a	UPD	Update the association between a resource description and a resource group, as described in "Updating a resource description-to-group association."

## Hyperlink fields

Table 50 shows the hyperlink fields on the RESINDSC view.

Table 50. RESINDSC view hyperlink fields

Hyperlink field	View displayed	Description
Name	RESDISC	Displays information about the selected resource description.
ResGroup	RESGROUP	Displays information about the selected resource group.

## Updating a resource description-to-group association

To update a resource description-to-group association:

1. Issue the update line action command (UPD) from the RESINDSC view.
2. Fill in the panel as illustrated in Figure 135.

COMMAND ===>

Resource Description EYUBAD03  
Resource Group EYUBAG02

Description ===>

Press ENTER to update Resource Group in Description.  
Type END or CANCEL to cancel without updating.

Figure 135. Updating the association between a resource description and group

3. Press Enter to update the resource description-to-group association in the data repository.



---

## Resource groups in description attributes

### Description

(Optional.) A 1- to 30-character description of a resource description-to-group association.

**RESINDSC**

---

## Chapter 61. RESINGRP (resource definitions in resource group) view

The RESINGRP view displays information about resource groups and the resource definitions associated with them. A RESINGRP association is created automatically when a resource definition is added to a resource group (RESGROUP).

---

### Accessing the RESINGRP view

To display information about existing resource groups and the resource definitions associated with them:

**Issue the command:**

```
RESINGRP [resgroup [resdef [restype]]]
```

where:

*resgroup*

Is the specific or generic name of a resource group or \* (asterisk) for all groups.

*resdef* Is the specific or generic name of a resource definition or \* (asterisk) for all definitions.

*restype*

Is a specific resource type.

If no parameters are specified, the view, illustrated in Figure 136, includes information about all resource groups within the current context and the resource definitions associated with them.

**Select:**

RESINGRP from the ADMBAS menu.

```
27FEB2005 19:34:15 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =RESINGRP=====EYUPLX01=EYUPLX01=27FEB2005==19:34:15=CPSM=====4==
CMD Resource  Resource  Ver  Restype
--- Group--- Name----- ---  -----
EYUBAG04 EYUFIL08  1  FILEDEF
EYUBAG04 EYUFIL09  1  FILEDEF
EYUBAG04 EYULSR01  1  LSRDEF
EYUBAG04 EYUPRF03  1  PROFDEF
EYUBAG04 EYUTSM02  1  TSMDEF
```

Figure 136. The RESINGRP view

---

### Working with the RESINGRP view

The topics covered by this section are:

- “Action commands” for the RESINGRP view.
- “Hyperlink fields” on page 384 from the RESINGRP view.

#### Action commands

Table 51 on page 384 summarizes the action commands you can use with the RESINGRP view.

## RESINGRP

Table 51. RESINGRP view action commands

Primary command	Line command	Description
n/a	MAP	Display a visual map of business application services definitions using the specified group as a starting point.
REMove <i>resgroup resdef</i>	REM	Remove the association between a resource group and a resource definition.

## Hyperlink fields

There are no hyperlink fields in the RESINGRP view.

## Chapter 62. SYSLINK (system links) view

The SYSLINK view displays information about the links between CICS systems in a CICSplex.

### Accessing the SYSLINK view

To display information about the links that exist between CICS systems in the CICSplex:

**Issue the command:**

SYSLINK [primary [secondary]]

where:

**primary**

Is the specific or generic name of a CICS system or \* (asterisk) for all CICS systems.

**secondary**

Is the specific or generic name of a CICS system to which the specified primary CICS system is linked.

If no parameters are specified, the view includes information about all system links defined in the current context, as illustrated in Figure 137.

**Select:**

SYSLINK from the ADMBAS menu.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =SYSLINK=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====4==
CMD Primary  Secondary ConnDef Ver  SessDef Ver
-----
EYUMAS1A    EYUMAS2A    C002      1  S0002      1
EYUMAS1A    EYUMAS3A    C002      1  S0002      1
EYUMAS1B    EYUMAS2A    C002      1  S0002      1
EYUMAS4A    EYUMAS1B    C002      1  S0002      1
```

Figure 137. The SYSLINK view

The terms Primary and Secondary are used in the SYSLINK view to identify two CICS systems to be connected by a corresponding link. The Primary system has the values defined in the installed CONNDEF and SESSDEF definitions. For the Secondary system, some of the values are altered by the install process. In the Secondary CICS system for an MRO connection, the Receive count is swapped with the Send count, and the Receive size is swapped with the Send size. In the Secondary system for an APPC connection, the Receive size field is swapped with the Send size and the 'Maximum number of sessions supported as contention winners' is recalculated by subtracting the 'Maximum number of sessions supported as contention winners' from the 'Maximum number of sessions in the group' in the Primary system. For example, if Maximum(90, 10) is specified, this value is installed in the Primary system, and Maximum(90, 80) is installed in the Secondary system. This creates a communications link, with the corresponding values, between the CICS systems.

A system link is identified in the data repository by both CICS system names. A given CICS system name may be in the Primary position of some system link definitions and in the Secondary position of others, depending on how the definition was created. Any definition that names that system, regardless of its position, is a valid link for the system. However, because the same system name can appear in either the Primary or Secondary field, the SYSLINK view has certain limitations:

- The SORT display command cannot display all the system links for a given CICS system together. SORT enables you to sort records based on the contents of a single field, but the CICS system name can be in either of two fields.
- A single SYSLINK view cannot display all the system links for a given CICS system to the exclusion of all other links. Again, because a system can be either the primary or secondary system in a link, a single SYSLINK command cannot adequately filter the records. Using the systems in Figure 137 on page 385 as an example, you would have to issue both of these commands:

- SYSLINK EYUMAS1B
- SYSLINK \* EYUMAS1B

to isolate all of the system links for EYUMAS1B.

The APPLID and SYSID values used in the connections that are defined between the primary and secondary systems are dependant on when the systems were started and whether or not the APPLID and SYSIDNT values used in the CICSSYS definition match the values in use by CICS.

When a system link is installed connection and sessions definitions for the partner system are created:

- If the partner system is **not** active or **not** connected to CICSplex SM, the APPLID and SYSIDNT values used for the connection definition are taken from the CICSSYS definition for the partner system.
- If the partner system is active **and** connected to CICSplex SM, the APPLID and SYSIDNT used for the connection definition are the values currently in use by the partner system (for example the values specified in the SIT or SIT overrides for the partner system).

If the APPLID or SYSIDNT of a MAS is changed, you should update the CICSSYS definition:

- After the values have been changed, the MAS continues to use the old values as long as it remains active. During this time partner systems installing system links that refer to this MAS use the (old) APPLID or SYSIDNT values which the MAS is using.
- After the MAS has been shut down (following the change), and before it has started again, partner systems installing system links use the updated values from the CICSSYS definition.
- After the MAS has been restarted it uses the new values, and partner systems installing links that refer to this MAS use the (new) values that the MAS is using.

---

## Working with the SYSLINK view

The topics covered by this section are:

- “Action commands” on page 387 for the SYSLINK view.
- “Hyperlink fields” on page 387 from the SYSLINK view.

## Action commands

Table 52 summarizes the action commands you can use with the SYSLINK view.

Table 52. SYSLINK view action commands

Primary command	Line command	Description
n/a	BRO	Browse a CICS system link definition.  The format of the resulting panel is similar to that shown in Figure 138. All of the fields are nonmodifiable.
CREate	CRE	Create a CICS system link definition and add it to the data repository, as described in “Creating a CICS system link.”
n/a	INS	For systems running either CICS/ESA 4.1 and later, install a CICS system link in an active system, as described in “Installing system links” on page 80.
n/a	REM	Remove a CICS system link definition from the data repository, as described in “Removing a CICS system link.”

## Hyperlink fields

There are no hyperlink fields in the SYSLINK view.

## Creating a CICS system link

To create a CICS system link:

1. Issue the create primary (CREate) or line (CRE) action command from the SYSLNK view.
2. Fill in the panel illustrated in Figure 138.

```
COMMAND ==>

Primary System ==> EYUMAS1A
Secondary System ==> EYUMAS1B

ConnDef Name ==> CON1      Version ==> 1
SessDef Name ==> SESSDEF1  Version ==> 1

Press ENTER to create SYSLINK.
Type END or CANCEL to cancel without creating.
```

Figure 138. Creating a CICS system link

3. Press Enter to create the system link definition in the CICSplex SM data repository.

## Removing a CICS system link

To remove a CICS system link:

1. Issue the REM line action command from the SYSLNK view.
2. Fill in the panel illustrated in Figure 139 on page 388.

COMMAND   ===>

Primary System

Secondary System

ConnDef Name

SessDef Name

EYUMAS1A

EYUMAS1B

CON1

SESSDEF1

Version

Version

1

1

Press ENTER to remove SYSLINK.

Type END or CANCEL to cancel without removing.

Figure 139. Removing a CICS system link

From this panel you can verify which CICS system link is being removed.

3. Press Enter to remove the system link definition from the CICSplex SM data repository. To cancel the remove action, type END or CANCEL; the system link definition remains in the data repository.

## System link attribute descriptions

### ConnDef Name

The 1- to 4-character name of a connection definition (CONNDEF) that describes a link.

### Primary System

A 1- to 8-character name of a CICS system. The CICS system that you specify must have a system ID defined for it (that is, the SYSIDNT field of the CICSSYS definition must contain a valid system ID).

### Secondary System

A 1- to 8-character name of a CICS system to which you want the primary system linked. The CICS system that you specify must have a system ID defined for it (that is, the SYSIDNT field of the CICSSYS definition must contain a valid system ID).

### SessDef Name

A 1- to 8-character name of the sessions definition (SESSDEF) that is used to create a link.

### Version

The version of connection and sessions definitions being used to create a link, in the range 1 to 15.



## Chapter 63. SYSRES (CICS system resources) view

The SYSRES view displays the resources that will be assigned to a specified CICS system. Resources are selected based on the resource descriptions currently associated with the CICS system.

**Note:** Resources named in a resource assignment are included in the SYSRES view only if that assignment is associated with a resource description.

### Accessing the SYSRES view

To display information about the resources that will be assigned to a CICS system:

**Issue the command:**

SYSRES *sysname*

where *sysname* is the name of a CICS system within the current context.

**Select:**

SYSRES from the ADMBAS menu.

Figure 140 is an example of the SYSRES view.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =SYSRES=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD System  Resource Ver Type  Use Mode  ResDesc  Assign  Group  Refere
-----
EYUMAS1A EYUFIL07  1  FILE  LOC
EYUMAS1A EYUFIL08  1  FILE  LOC
EYUMAS1A EYUFIL09  1  FILE  LOC
```

Figure 140. The SYSRES view (left side)

You can scroll to the right to see additional information, as shown in Figure 141.

```
27FEB2005 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
<W1 =SYSRES=====EYUPLX01=EYUPLX01=27FEB2005==11:30:30=CPSM=====3==
CMD System  Referenc Ref Type  Alias
-----
EYUMAS1A
EYUMAS1A
EYUMAS1A
```

Figure 141. The SYSRES view (right side)

#### Notes:

1. When the name in the Resource column is that of a DB2TDEF, the Referenced Resource column can contain the name of a DB2EDEF. What has happened in such cases is that CICSplex SM has created a 'ghost' DB2TDEF entry that will result in a DB2TRAN object when that DB2EDEF is installed. This situation arises when a transaction id was specified in the DB2EDEF. In this case, the Referenced Resource field contains details of the DB2EDEF that generated the DB2TDEF.

- Journal definitions (JRNLEDEF), file key segment definitions (FSEGDEF) and session definitions (SESSDEF) can appear in a SYSRES view; this is to present a complete picture of your logical scope. Note, however, that those resources are never actually installed in a CICS system.
- Connection definitions (CONNDEF) can be installed in a CICS system only if they have associated SESSDEFs (as noted in the Referenc Resource field). If the Referenc Resource field for a CONNDEF is blank, the connection cannot be installed.

## Working with the SYSRES view

The topics covered by this section are:

- “Action commands” for the SYSRES view.
- “Hyperlink fields” from the SYSRES view.

## Action commands

There are no actions for the SYSRES view.

## Hyperlink fields

Table 53 shows the hyperlink fields on the SYSRES view.

Table 53. SYSRES view hyperlink fields

Hyperlink field	View displayed	Description
Resource	xxxxDEF	Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).
Group	RESINGRP	Displays the resources associated with the specified resource group.
Referenc Resource	xxxxDEF	Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).

## SYSRES view attribute descriptions

The fields displayed are:

**Alias** An alias for a remote definition.

### Assign

The name of the resource assignment.

**Group** The name of the resource group to which the resource definition belongs.

**Mode** The value in this field depends on the resource type being processed. See page 350.

### Referenc Resource

The referenced resource definition name.

### Ref Ver

The referenced resource definition version.

**Related**

If the Use field contains REMOTE, this is the name of the CICS system or CICS system group that holds the local definition of the resource.

**Resource**

The name of the resource definition

**Target** The name of an existing CICS system or CICS system group into which the resource is to be installed.

**Type** The resource type or referenced resource definition type.

**Use** Whether the resource usage is local or remote.

**Version**

The resource definition version.



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## Bibliography

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### The CICS Transaction Server for z/OS library

The published information for CICS Transaction Server for z/OS is delivered in the following forms:

#### The CICS Transaction Server for z/OS Information Center

The CICS Transaction Server for z/OS Information Center is the primary source of user information for CICS Transaction Server. The Information Center contains:

- Information for CICS Transaction Server in HTML format.
- Licensed and unlicensed CICS Transaction Server books provided as Adobe Portable Document Format (PDF) files. You can use these files to print hardcopy of the books. For more information, see “PDF-only books.”
- Information for related products in HTML format and PDF files.

One copy of the CICS Information Center, on a CD-ROM, is provided automatically with the product. Further copies can be ordered, at no additional charge, by specifying the Information Center feature number, 7014.

Licensed documentation is available only to licensees of the product. A version of the Information Center that contains only unlicensed information is available through the publications ordering system, order number SK3T-6945.

#### Entitlement hardcopy books

The following essential publications, in hardcopy form, are provided automatically with the product. For more information, see “The entitlement set.”

### The entitlement set

The entitlement set comprises the following hardcopy books, which are provided automatically when you order CICS Transaction Server for z/OS, Version 3 Release 1:

*Memo to Licensees*, GI10-2559  
*CICS Transaction Server for z/OS Program Directory*, GI10-2586  
*CICS Transaction Server for z/OS Release Guide*, GC34-6421  
*CICS Transaction Server for z/OS Installation Guide*, GC34-6426  
*CICS Transaction Server for z/OS Licensed Program Specification*, GC34-6608

You can order further copies of the following books in the entitlement set, using the order number quoted above:

*CICS Transaction Server for z/OS Release Guide*  
*CICS Transaction Server for z/OS Installation Guide*  
*CICS Transaction Server for z/OS Licensed Program Specification*

### PDF-only books

The following books are available in the CICS Information Center as Adobe Portable Document Format (PDF) files:

#### CICS books for CICS Transaction Server for z/OS

##### General

*CICS Transaction Server for z/OS Program Directory*, GI10-2586  
*CICS Transaction Server for z/OS Release Guide*, GC34-6421  
*CICS Transaction Server for z/OS Migration from CICS TS Version 2.3*, GC34-6425

*CICS Transaction Server for z/OS Migration from CICS TS Version 1.3,*  
GC34-6423

*CICS Transaction Server for z/OS Migration from CICS TS Version 2.2,*  
GC34-6424

*CICS Transaction Server for z/OS Installation Guide,* GC34-6426

#### **Administration**

*CICS System Definition Guide,* SC34-6428

*CICS Customization Guide,* SC34-6429

*CICS Resource Definition Guide,* SC34-6430

*CICS Operations and Utilities Guide,* SC34-6431

*CICS Supplied Transactions,* SC34-6432

#### **Programming**

*CICS Application Programming Guide,* SC34-6433

*CICS Application Programming Reference,* SC34-6434

*CICS System Programming Reference,* SC34-6435

*CICS Front End Programming Interface User's Guide,* SC34-6436

*CICS C++ OO Class Libraries,* SC34-6437

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*CICS Business Transaction Services,* SC34-6439

*Java Applications in CICS,* SC34-6440

*JCICS Class Reference,* SC34-6001

#### **Diagnosis**

*CICS Problem Determination Guide,* SC34-6441

*CICS Messages and Codes,* GC34-6442

*CICS Diagnosis Reference,* GC34-6899

*CICS Data Areas,* GC34-6902

*CICS Trace Entries,* SC34-6443

*CICS Supplementary Data Areas,* GC34-6905

#### **Communication**

*CICS Intercommunication Guide,* SC34-6448

*CICS External Interfaces Guide,* SC34-6449

*CICS Internet Guide,* SC34-6450

#### **Special topics**

*CICS Recovery and Restart Guide,* SC34-6451

*CICS Performance Guide,* SC34-6452

*CICS IMS Database Control Guide,* SC34-6453

*CICS RACF Security Guide,* SC34-6454

*CICS Shared Data Tables Guide,* SC34-6455

*CICS DB2 Guide,* SC34-6457

*CICS Debugging Tools Interfaces Reference,* GC34-6908

### **CICSplex SM books for CICS Transaction Server for z/OS**

#### **General**

*CICSplex SM Concepts and Planning,* SC34-6459

*CICSplex SM User Interface Guide,* SC34-6460

*CICSplex SM Web User Interface Guide,* SC34-6461

#### **Administration and Management**

*CICSplex SM Administration,* SC34-6462

*CICSplex SM Operations Views Reference,* SC34-6463

*CICSplex SM Monitor Views Reference,* SC34-6464

*CICSplex SM Managing Workloads,* SC34-6465

*CICSplex SM Managing Resource Usage,* SC34-6466

*CICSplex SM Managing Business Applications,* SC34-6467

#### **Programming**

*CICSplex SM Application Programming Guide,* SC34-6468

*CICSplex SM Application Programming Reference,* SC34-6469

## Diagnosis

*CICSplex SM Resource Tables Reference*, SC34-6470  
*CICSplex SM Messages and Codes*, GC34-6471  
*CICSplex SM Problem Determination*, GC34-6472

## CICS family books

### Communication

*CICS Family: Interproduct Communication*, SC34-6473  
*CICS Family: Communicating from CICS on System/390*, SC34-6474

## Licensed publications

The following licensed publications are not included in the unlicensed version of the Information Center:

*CICS Diagnosis Reference*, GC34-6899  
*CICS Data Areas*, GC34-6902  
*CICS Supplementary Data Areas*, GC34-6905  
*CICS Debugging Tools Interfaces Reference*, GC34-6908

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## Other CICS books

The following publications contain further information about CICS, but are not provided as part of CICS Transaction Server for z/OS, Version 3 Release 1.

<i>Designing and Programming CICS Applications</i>	SR23-9692
<i>CICS Application Migration Aid Guide</i>	SC33-0768
<i>CICS Family: API Structure</i>	SC33-1007
<i>CICS Family: Client/Server Programming</i>	SC33-1435
<i>CICS Transaction Gateway for z/OS Administration</i>	SC34-5528
<i>CICS Family: General Information</i>	GC33-0155
<i>CICS 4.1 Sample Applications Guide</i>	SC33-1173
<i>CICS/ESA 3.3 XRF Guide</i>	SC33-0661

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## Determining if a publication is current

IBM regularly updates its publications with new and changed information. When first published, both hardcopy and BookManager® softcopy versions of a publication are usually in step. However, due to the time required to print and distribute hardcopy books, the BookManager version is more likely to have had last-minute changes made to it before publication.

Subsequent updates will probably be available in softcopy before they are available in hardcopy. This means that at any time from the availability of a release, softcopy versions should be regarded as the most up-to-date.

For CICS Transaction Server books, these softcopy updates appear regularly on the *Transaction Processing and Data Collection Kit* CD-ROM, SK2T-0730-xx. Each reissue of the collection kit is indicated by an updated order number suffix (the -xx part). For example, collection kit SK2T-0730-06 is more up-to-date than SK2T-0730-05. The collection kit is also clearly dated on the cover.

Updates to the softcopy are clearly marked by revision codes (usually a # character) to the left of the changes.





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## Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully.

You can perform most tasks required to set up, run, and maintain your CICSplex SM system in one of these ways:

- using a 3270 emulator connected to CICSplex SM
- using a 3270 emulator logged on to CICS
- using a 3270 emulator logged on to TSO
- using a 3270 emulator as an MVS system console
- using the CICSplex SM web user interface.

IBM Personal Communications (Version 5.0.1 for Windows 95, Windows 98, Windows NT and Windows 2000; version 4.3 for OS/2) provides 3270 emulation with accessibility features for people with disabilities. You can use this product to provide the accessibility features you need in your CICSplex SM system.



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