



Providing a flexible, single point of control for CICS resource definitions

IBM CICS Configuration Manager for z/OS, Version 2.1

Highlights

- Manage CICS[®] resource definitions across your enterprise from a single point of control
- Manipulate definitions seamlessly across CSD files and CICSplex[®] System Manager data repositories
- Distribute CICS resources across multiple sites using an integrated export and import function
- Create, edit, rename, compare, copy, move and remove definitions, individually or in groups
- Upgrade multiple definitions in a single step with the option to transform definitions automatically to match the target environment
- Use the audit trail to generate reports and back out changes to any previous version of the definitions

New in this release

- CICS Transaction Server V4.1 support
- Support for the IBM[®] CICS Explorer[™], “The new face of CICS”
- Working with full-function BAS objects
- Deployment analysis reports
- Migration of commands

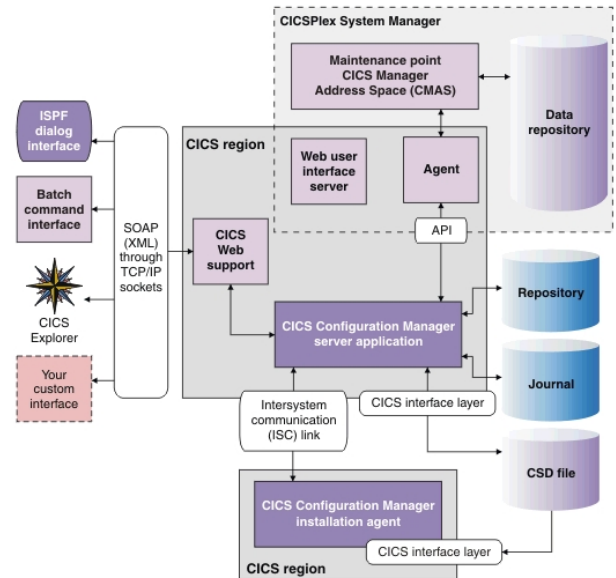


Figure 1 CICS Configuration Manager architecture

Enterprises throughout the world continue to rely on IBM CICS systems to handle their key business processes and customer data. But to keep pace with customer needs, enterprises must constantly enhance the function of these CICS systems and applications, with changes ranging from routine application maintenance to developing new Web services applications. These enterprises are also upgrading to new releases of IBM CICS Transaction Server to take advantage of enhanced performance features and new functionality.

To help you address these challenges, IBM offers a suite of CICS tools that are designed to:

- *Support application transformation and CICS technology-based service oriented architecture (SOA) implementations.*
- *Enable easier CICS version-to-version upgrades, including upgrading to CICS Transaction Server, Version 4.1.*
- *Help reduce the complexity and cost of CICS system and application management.*
- *Help improve CICS application and data availability.*
- *Comply with regulations like the U.S. Sarbanes-Oxley (SOX) Act.*

IBM CICS Configuration Manager for z/OS, Version 2.1 is one of the tools in this comprehensive portfolio. It enables you to control all CICS resource definitions within your enterprise systems through a single interface. Using this product helps you gain tighter and more transparent control over CICS administration, which is critical for the smooth operation of CICS systems, and facilitates collaboration among the people involved in making and tracking changes.

Accurate and up-to-date CICS resource definitions are essential to maintain the high availability expected of your CICS environment. Resource definitions need to be updated frequently, for example, to support application changes or upgrading to a new version of CICS Transaction Server. To upgrade your CICS systems and applications, you might have to configure new CICS systems, provision resources, modify existing applications and deploy new applications. Each of these tasks requires you to create or modify your CICS resource definitions.

Resources such as data sets, programs and terminals are defined to each of the CICS systems you run. You must move your application resource definitions from development and testing environments to your production environment. These definitions can be stored in CICS system definition (CSD) files

or IBM CICSplex System Manager data repositories.

Controlling the required changes to CICS resource definitions in multiple CICS regions and environments can be a challenge. Manual errors that can occur when the changes are being made can potentially lead to application downtime, which, in turn, can cause customer dissatisfaction. Lack of an audit trail of changes can make it difficult to identify and resolve problems. And complex CICS topologies can make routine definition updates a labor-intensive task. To improve collaboration between the roles involved in the updates, you might need to automate your resource definition management processes and integrate with the change-management products you are currently using.

CICS Configuration Manager provides comprehensive facilities to administer and maintain resource definitions across multiple CICS regions, including regions that are controlled by CICSplex System Manager. CICS Configuration Manager helps simplify CICS administration, lower maintenance costs and reduce errors. It also helps improve productivity of IT staff, including managers, system programmers and application developers, by:

- *Helping to optimize day-to-day CICS system management and administration*
- *Streamlining resource-definition processes for new application development and deployment, and integration with the change-management products.*
- *Improving change control and auditability of CICS systems.*
- *Easing upgrades between releases of IBM CICS Transaction Server.*

CICS Explorer

New in this release is a plug-in for the IBM CICS Explorer, the new face of CICS, which offers an Eclipse-based graphical user interface to many of the functions available in the CICS Configuration Manager TSO/ISPF user interface.

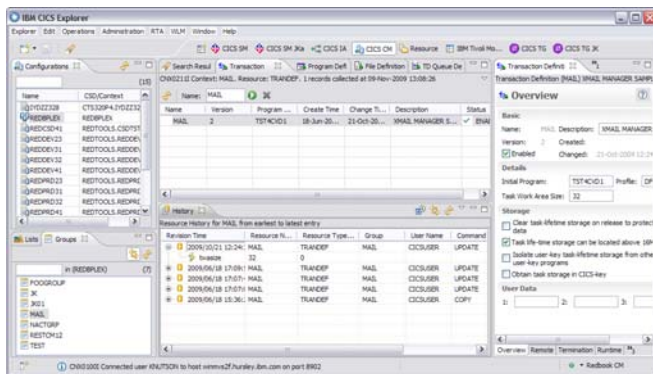


Figure 2 View, edit, install, or move CICS resource definitions using the CICS Explorer

The CICS Explorer (see **Figure 2**) enables users with broader and less-specialized skills to access the power of CICS CM and deliver additional value when used in conjunction with other CICS tools.

Maintain and change your resource definitions more easily

CICS Configuration Manager provides an easy-to-use Time Sharing Option (TSO) Interactive System Programming Facility (ISPF) interface to transparently manage resource definitions for CICS Transaction Server across multiple CICS regions. The CICS Configuration Manager client TSO ISPF interface enables you to edit resource definitions more effectively than if you used the Resource Definition Online (RDO) CEDA transaction provided by CICS Transaction Server, because it helps hide the complexities of your CICS topology and helps avoid errors. For example, this interface enables you to:

- *Edit resource definitions while the regions that use them are inactive.*

- *Edit RDO definitions from CSD files or CICSplex System Manager data repositories in the same session.*
- *Use the extensive field-sensitive help capabilities for all resource definition attributes.*
- *View and compare resource-definition histories, including groups and lists.*
- *Explore definitions using an expandable tree structure of lists and groups.*
- *Filter your view of definitions according to flexible, user defined criteria.*
- *Use advanced search and display capabilities available throughout the product.*
- *Copy or move definitions across configurations.*
- *Perform actions such as INSTALL and NEWCOPY on multiple definitions, across multiple active CICS regions, in a single step.*

If your environments are intentionally partitioned to protect against inadvertent change, such as with test and production environments or separately managed remote sites, you can use the import and export function provided by CICS Configuration Manager. This utility enables you to control the transfer of resource definitions between physically partitioned environments. If both the exporting and importing sites have CICS Configuration Manager, then, in addition to exporting and importing ad hoc selections of resource definitions, you can export and import change packages. As a result, you can take advantage of CICS Configuration Manager capabilities even when you have environments that are intentionally partitioned.

Access comprehensive reports on your resource definitions

As part of your resource-definition management process, you often require a detailed understanding of the current definitions in your system. For example, you need to know which definitions have become redundant or if any have been defined twice. CICS Configuration Manager provides advanced search and display capabilities to help you explore resource relationships with both the CICS Explorer (see Figure 3) and ISPF interface.

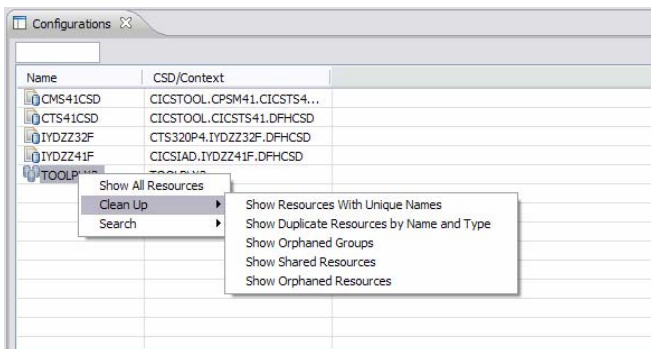


Figure 3 CSD clean-up in CICS Explorer.

You can compare resource definitions from multiple CICS configurations, and filter resource definitions by multiple user defined criteria (such as name, type and group) with support for full wildcard generic searches. You can also choose to search within results. You can locate resource definitions that match your search criteria or that have specified attribute values. And you can compare the attribute values of two resource definitions side by side, with differences highlighted. You can also compare groups and lists across different CSD files or CICSplex System Manager contexts, and select your own criteria for highlighting the differences. CICS Configuration Manager search supports both *and* and *or* conditions, which enhances searching capabilities.

In addition to your current resource definition analysis, CICS Configuration Manager enables you to retrieve and restore historical versions of definitions and compare historical versions with current definitions.

To complement its comprehensive online-reporting capabilities, CICS Configuration Manager also allows its reports to be saved and printed, enabling detailed analysis and improved auditability.

Cold-start analysis

New in this release, deployment analysis reports enable you to list or compare resource definitions in active CICS regions, CSD files, and CICSplex SM data repositories, in various combinations. The reports help you to answer questions about your CICS environment, and avoid potentially costly surprises caused by unexpected differences. For example, the “cold start compare” deployment analysis report compares a set of “runtime” resource definitions (collected from an active CICS region) with a set of “candidate” resource definitions (stored in a CSD file, CICSplex SM data repository, or combination of the two). This report (see Figure 4) helps you to answer the question: what will be the effect of cold-starting a CICS region?

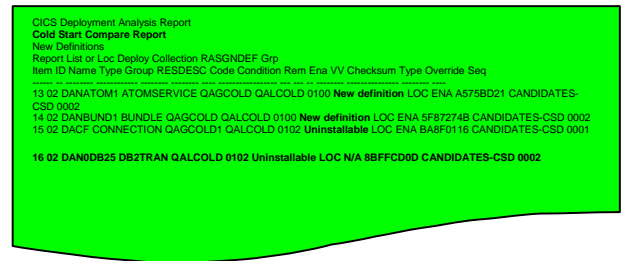


Figure 4 Deployment Analysis - Cold Start report

Keep tight control over changes

You might need to maintain systematic records of changes to your resource definitions for auditing or reporting purposes. You might also need an appropriate process to track approvals, or you might have to back out changes. CICS Configuration Manager can help you gain more control over the movement of definitions by enabling you to create change packages and specify required approval levels. These packages enable you to copy one or more resource definitions across multiple CICS configurations using a single command.

Using CICS Configuration Manager options, you can define approval requirements before changes are implemented, while maintaining the integrity of the change package. You can easily define your own approval rules for every change package, specifying the number and roles of the required approvers. After you have defined rules for a change package, that package isn't upgraded to a CICS system until the necessary approvals have been received. This capability enables you to provide controlled access to the users that you choose, such as your application development team.

To help ensure that you can control or back out any change if necessary, CICS Configuration Manager provides an audit trail of changed resources, dates and times, and the list of approvers, along with the ability to produce a range of reports to suit your needs. You can reverse changes, reverting to previous definitions, any number of states back, which enables you to test an upgrade and easily back out of it if needed.

Automate your resource-definition process

To help automate your resource definition management even further, CICS Configuration Manager enables you to group a set of resource definitions into a change package and link pairs of source and target CICS configurations by

defining them as migration schemes (see Figure 5). As an option, for each pair of CICS configurations in a migration scheme, you can select a set of transformation rules. These rules allow a resource definition to be modified during an upgrade to match its target environment. Transformation rules also enable you to search and replace definitions within a single CICS configuration, or you can use processing options to allow or disallow the application of further rules. Transformation rules provide a robust way to automate resource-definition management to help you save time moving definitions in complex CICS configurations, potentially eliminating errors caused by manual processes.

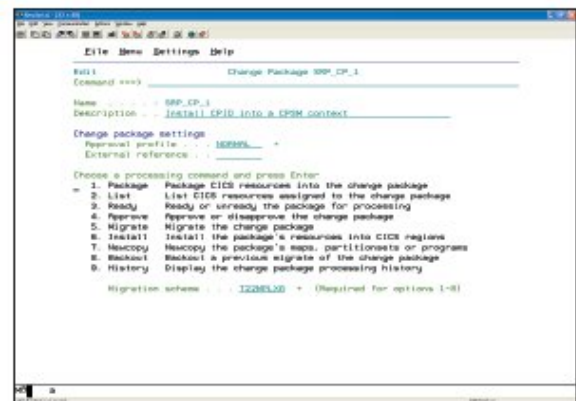


Figure 5 Create and manage change packages.

For example, you can define upgrade paths between environments, enabling you to systematically and repeatedly promote definitions from development to test, and then from test to production, with minimal effort.

New in this release, you can also use change packages to perform further migration tasks after the migration of resource definitions:

- Add a resource definition to a resource group (RESGROUP) in a context-based target CICS configuration.
- Remove a resource definition from a resource group in a context-based target CICS configuration.

- *Delete resource definition from either a CSD-based or a context-based target CICS configuration.*

Fitting with your existing processes

Although you can manage resources online, CICS Configuration Manager has been designed to accommodate your established procedures. If you need CICS Configuration Manager to be tailored completely to your environment, you can use the server user exit points and the SOAP XML application programming interface (API) provided to integrate CICS Configuration Manager with your existing processes. You can use events in CICS Configuration Manager, through the server exit points, to drive corresponding activity in your existing administrative processes and change management tools. For example, you can synchronize updates in your change-management tool, such as IBM z/OS® Software Configuration and Library Manager (SCLM) Plus or an in-house change-control solution. Or perhaps your organization has specific naming conventions and standards for all of the environments that you maintain. CICS Configuration Manager user exits can facilitate site-based enforcement and validation of these conventions and standards.

User exits implemented during ready, approve and upgrade processing can generate events to which other associated processes can react. You can use this capability to help ensure that security updates have been made for the appropriate transaction changes or to allocate data sets for new TCP/IP files.

The CICS Configuration Manager SOAP XML API and the batch interface are also provided so that you can use CICS Configuration Manager from your existing process, for example, to manage the upgrade and approval of change packages. This capability enables you to perform these procedures using time-scheduling products, and coordinate definition upgrades

with the upgrade of code elements maintained by other products.

Working with CICSplex System Manager

If you plan to use the business application services component of CICSplex System Manager, during the upgrade phase, you will have a mixed environment of CSDs and CICSplex System Manager data repositories. Through its online-management interface, CICS Configuration Manager provides a view of your resources that is completely independent from and transparent to the underlying repository, enabling you to easily move, copy and upgrade definitions between these two environments.

New for this release, you can now use CICS Configuration Manager to create and maintain full-function BAS objects:

- *Resource assignment (RASGNDEF)*
- *Resource assignments in resource description (RASINDSC)*
- *System link (SYSLINK)*

Using CICS Configuration Manager in CICS Transaction Server upgrades

CICS Configuration Manager is especially valuable when you are upgrading to a new version of CICS Transaction Server, including Version 4.1. You can make initial productivity gains using the tool to upgrade your existing definitions to the new test system. Later, you can gain repeated benefit—first, as you upgrade definitions to production systems and, later, as CICS Configuration Manager becomes part of your normal workflow-management processes.

Designed for ease of use

CICS Configuration Manager includes a number of features designed to optimize ease of use and to maximize performance. One of these features is the data take-up utility. This utility is a batch program that supports the initial take-up of CSD and CICSplex System Manager context data. It simplifies the input of CICS configuration data, which helps minimize your time to deployment of CICS Configuration Manager.

Other features include:

- *Intuitive CICS Explorer plug-in*
- *Easy navigation through ISPF dialogs*
- *Extensive help facility*
- *Detailed and easy-to-use diagnostics facilities*
- *Flexible object filtering*
- *Multiple resource processing optimized for high performance*
- *API commands that are consistent with existing interfaces, like CEDA, to help minimize the learning curve*
- *A journal archive and offload utility for CICS Configuration Manager journal records*

Use the IBM tools portfolio

CICS Configuration Manager is a part of an extensive portfolio of IBM System z™ tools. These tools support the entire enterprise application life cycle to help you build, integrate, test and manage enterprise solutions. With these tools, you can make the most of your System z platform investments and start taking advantage of the latest functions introduced in CICS Transaction Server.

For more information

To learn more about IBM CICS Configuration Manager for z/OS, Version 2.1, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/cics/cm/

To learn more about other IBM CICS Tools, visit:

ibm.com/cics/tools

To learn more about CICS Explorer, visit:

ibm.com/cics/explorer

IBM CICS Configuration Manager for z/OS, Version 2.1 at a glance

Hardware requirements

CICS Configuration Manager V2.1 can run on any IBM System z machine on which a required operating system and other required software are installed and running.

Software requirements

CICS Configuration Manager V2.1 operates with the following CICS configurations:

- CICS Transaction Server V4.1 (5655-S97)
- CICS Transaction Server V3.1 and V3.2 (5655-M15)
- CICS Transaction Server V2.2 or V2.3 (5697-E93)
- CICS Transaction Server V1.3 (5655-147)

The CICS Explorer is supported on the following platforms:

- Microsoft Windows® Vista
- Microsoft Windows XP (32-bit)
- Microsoft Windows Server 2003 and 2008 (32-bit)
- Red Hat Enterprise Linux V5 (Intel®) (32-bit)

The following products are also required:

- z/OS as required by applicable CICS TS release

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