IBM Software Group

Enterprise Management

CICS TS V3 R1, CICSPlex System Manager – Technical Overview

WebSphere software

e business on demand software

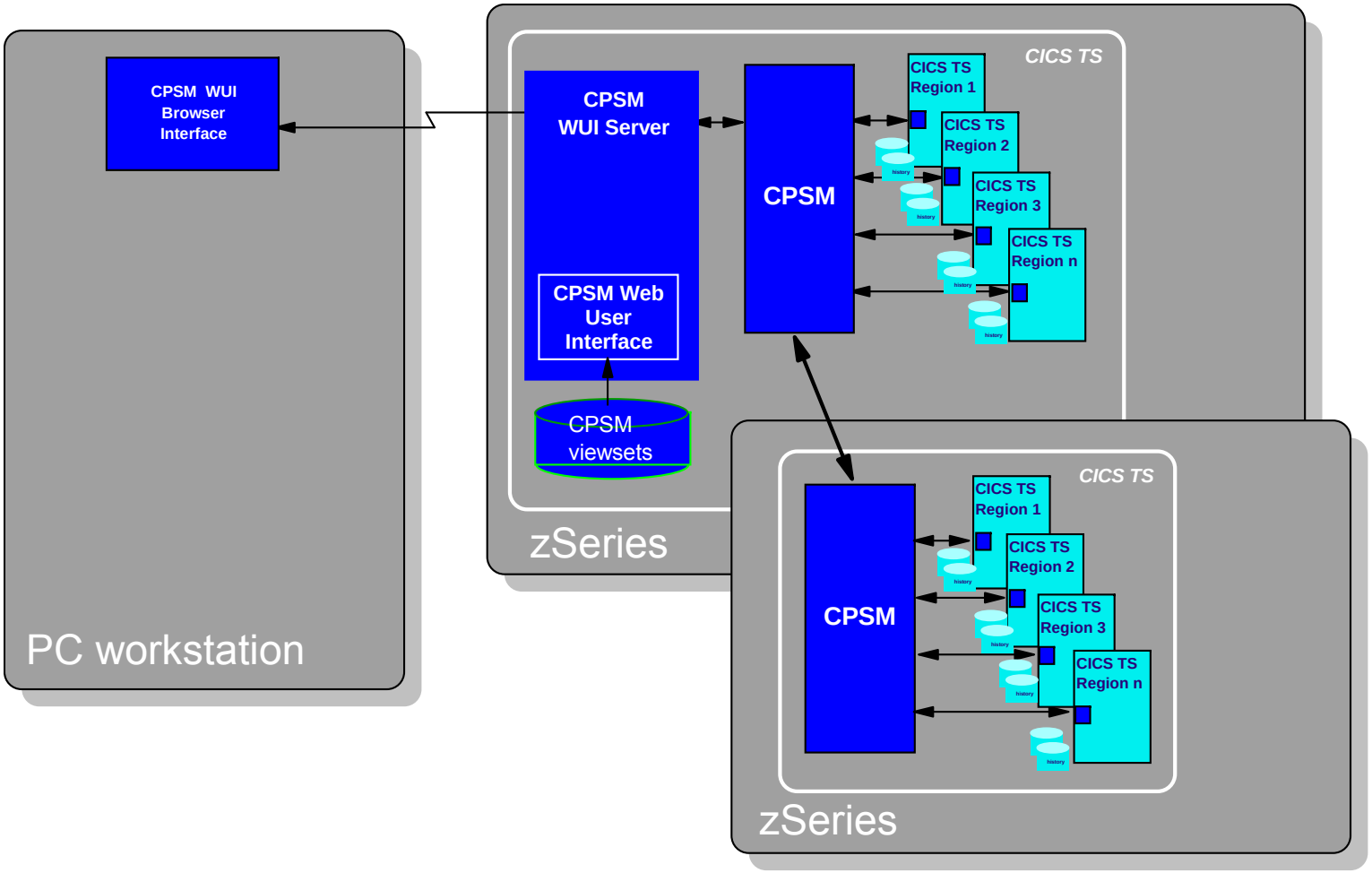
CICSPlex SM review

- Enterprise systems management for CICS on z/OS via
  - Web User Interface
  - Batch repository update
  - Application Programming Interface
- Single System Image & Single Point of Control
  - Resource definition
  - Operations
  - Monitoring
  - Workload Management
  - Threshold Analysis
  - Automation
- Tivoli Business System Manager Integration

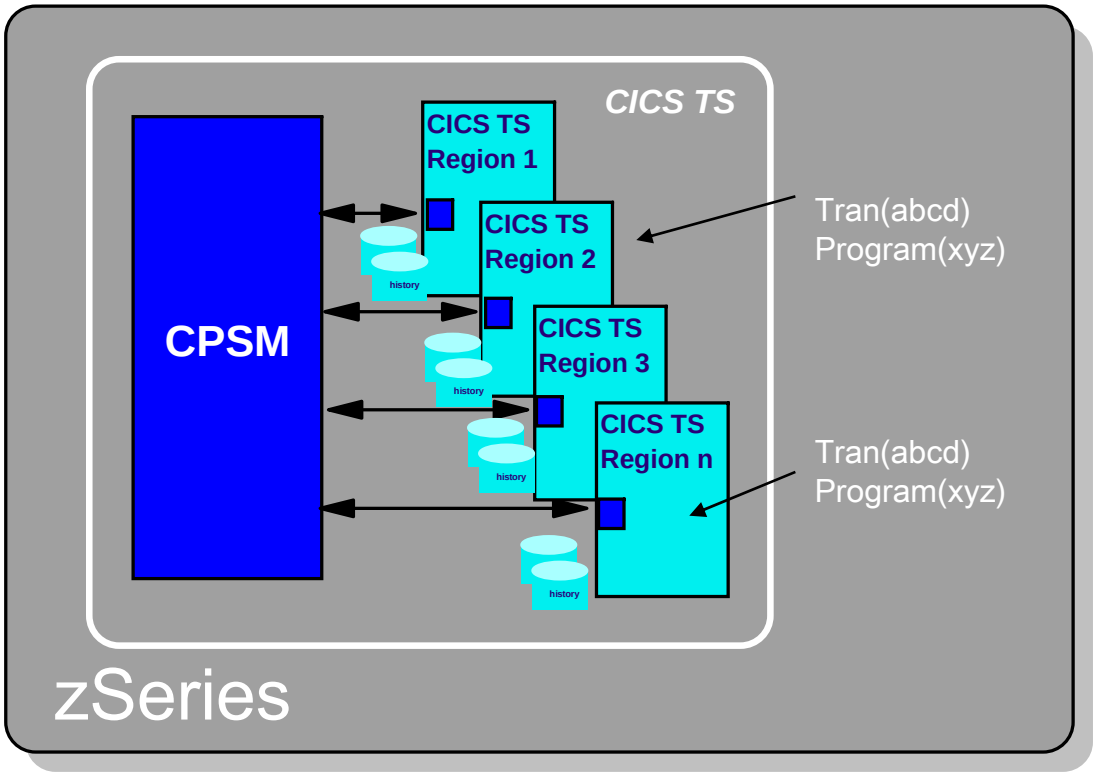
Single System Image – what does it mean?

- Resources may move from one day to another
- New regions may be created, others removed
- All of these changes drive
  - notifications to those concerned, e.g. operations
  - Changes to actions taken by staff
  - A common source of error
    - Disable transaction ABCD
      - Does so in CICSA, CICSB
      - But not CICSC where it was installed yesterday
- As location of resources change, topology keeps track of this automatically
- Actions taken via WUI or API are independent ot location
  - DISABLE TRANS(PAYR) SCOPE(PAYROLL)
- Information is all displayed together in one view e.g.
  - All tasks associated with unit of work across the CICSplex

CICSPlex SM Architecture

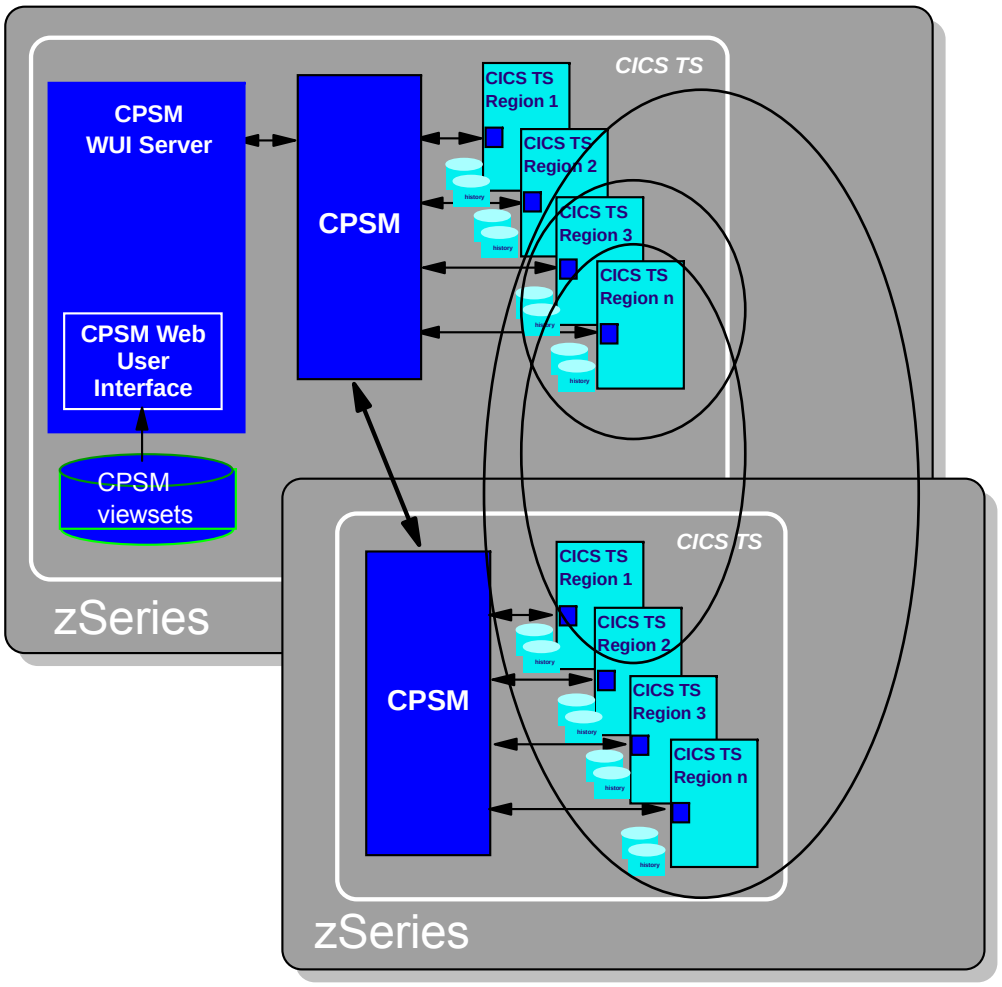


Topology – Where are the resources?



- CICS regions initialise and terminate
  - CICS resources become available/unavailable
- Topology keeps track of all resources within the CICSplexes
- Used to make directed requests to CICS regions and their resources
- Provides the basis for Single System Image (SSI)

Identifying sets of systems

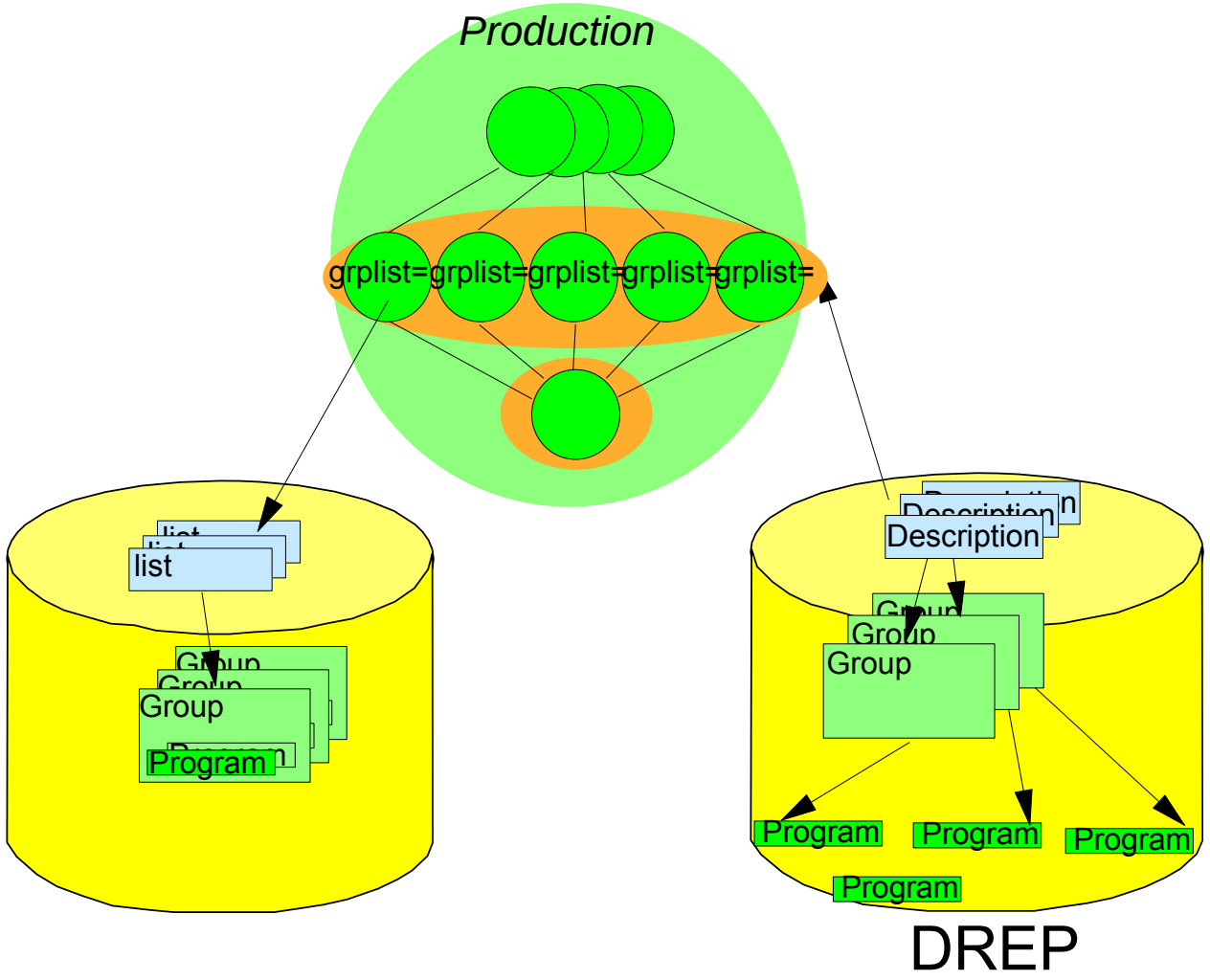


- CONTEXT – the name of a collection of CICS regions
  - e.g. TEST, QAPLEX, PRODUCTION
  - A CICS region can only be in one context
- SCOPE – the name of a set of CICS regions within that CONTEXT
  - e.g. PAYAORS, TORSET…
  - A CICS region can be in multiple scopes

Business Application Services – Resource Definition

- The CICSPlex SM equivalent of CICS RDO
  - Basic BAS is very similar to RDO
  - Also introduces SYSLINK resource for CONNECTION/SESSIONs
  - Advanced BAS introduces one additional construct
    - Resource assignment
  - Definitions can also be assigned a logical name e.g. PAYROLL
    - Can be used as a runtime filter via operations
  - Install controlled at
    - CICS initialisation
    - CICS Runtime
      - INSTALL …… CONTEXT(QAPLEX) SCOPE(AORSET)

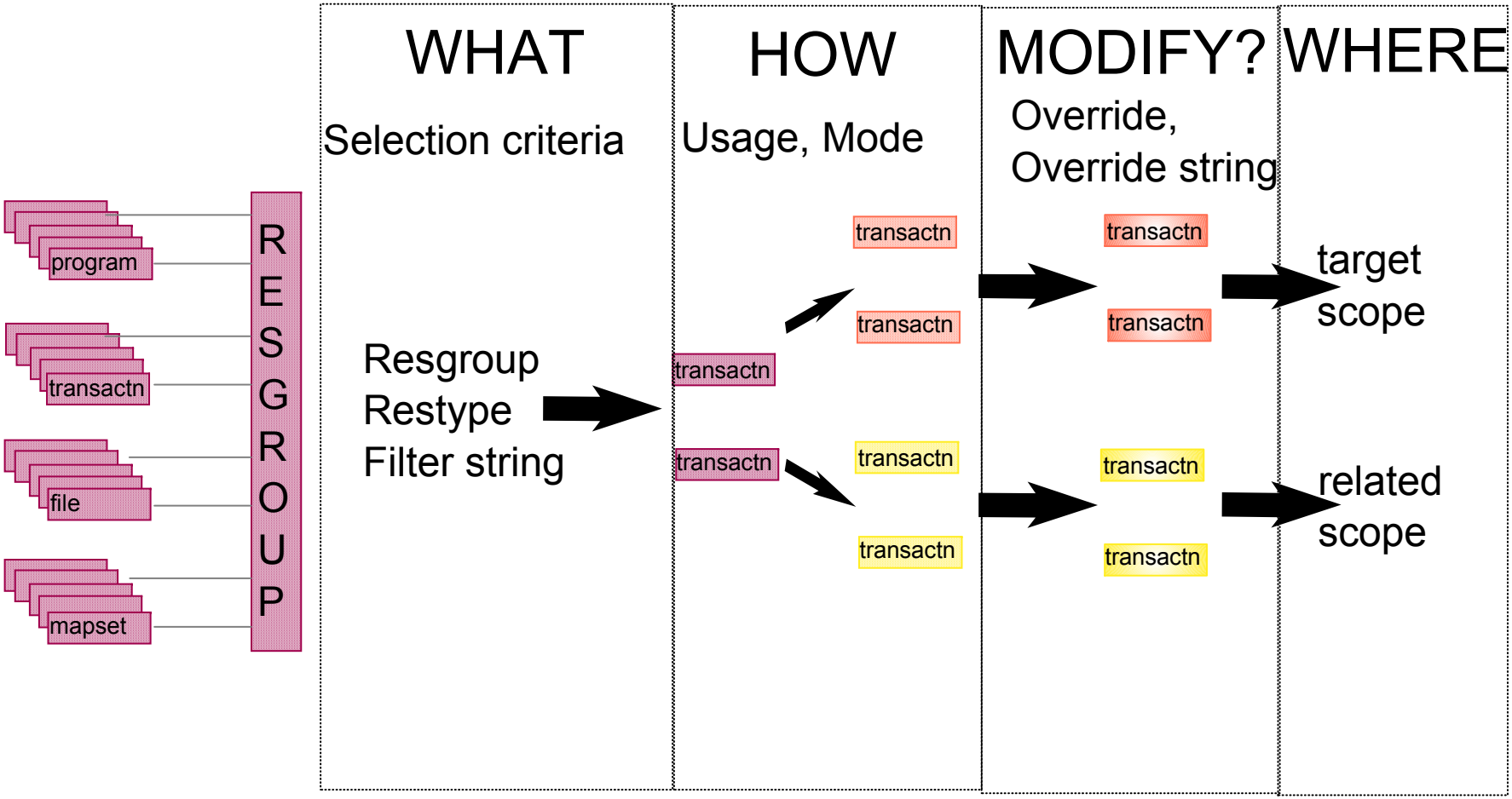
How basic BAS and RDO relate to each other



Why should I use it?

- RDO
  - Repository
    - Sysplex shared
    - Discrete - need copies
  - Data
    - control - full access
    - volume - baseline
    - consistency - CHECK cmd
  - Access control
    - dataset RACF
    - records LOCK/UNLOCK
  - Install span of control
    - Coldstart
    - region -> Sysplex
  - Runtime
    - Single system
  - API access
    - No access to CSD data
    - EXEC CICS CREATE
  - Integration into runtime
    - None
  - EUI
    - 3270 from within CICS
- BAS
  - Repository
    - Globally shared
    - No need to copy things around
  - Data
    - control - full access
    - volume - less due to sharability
    - consistency - increased
  - Access control
    - dataset RACF
    - records RACF
  - Install span of control
    - Coldstart
    - Global
  - Runtime
    - Global
  - API Access
    - Full access from CICS, batch, TSO, NetView
  - Integration into runtime
    - enables subset resource management
  - EUI
  - Web Browser via WUI

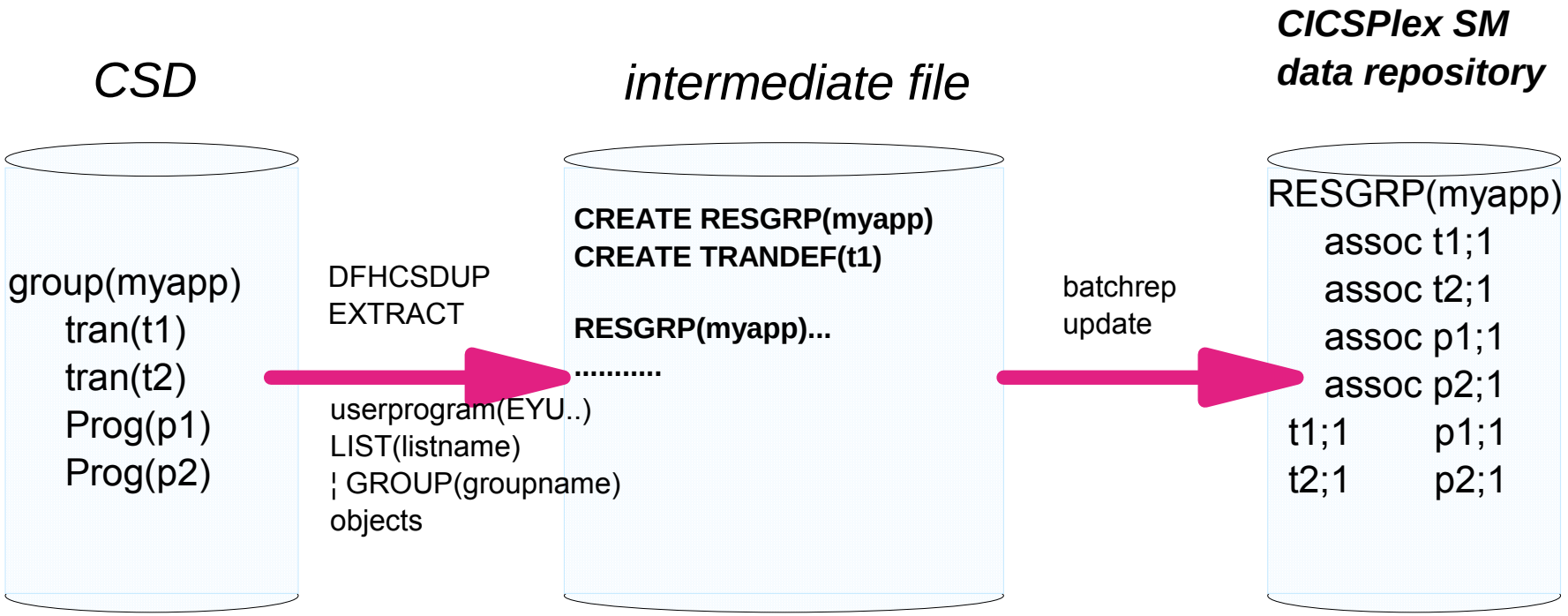
BAS – Advanced BAS – the Resource Assignment



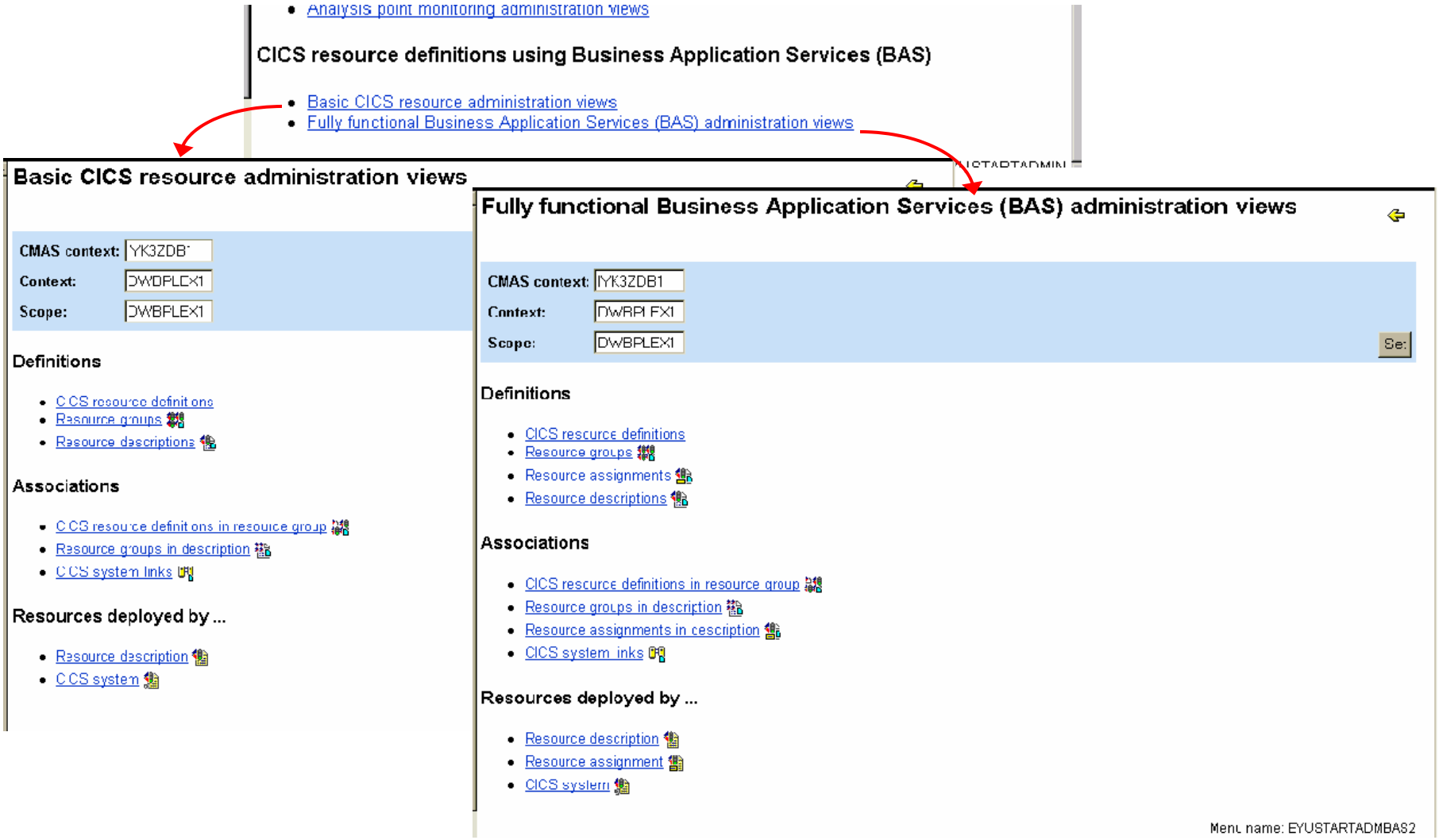
Why use resource assignments?

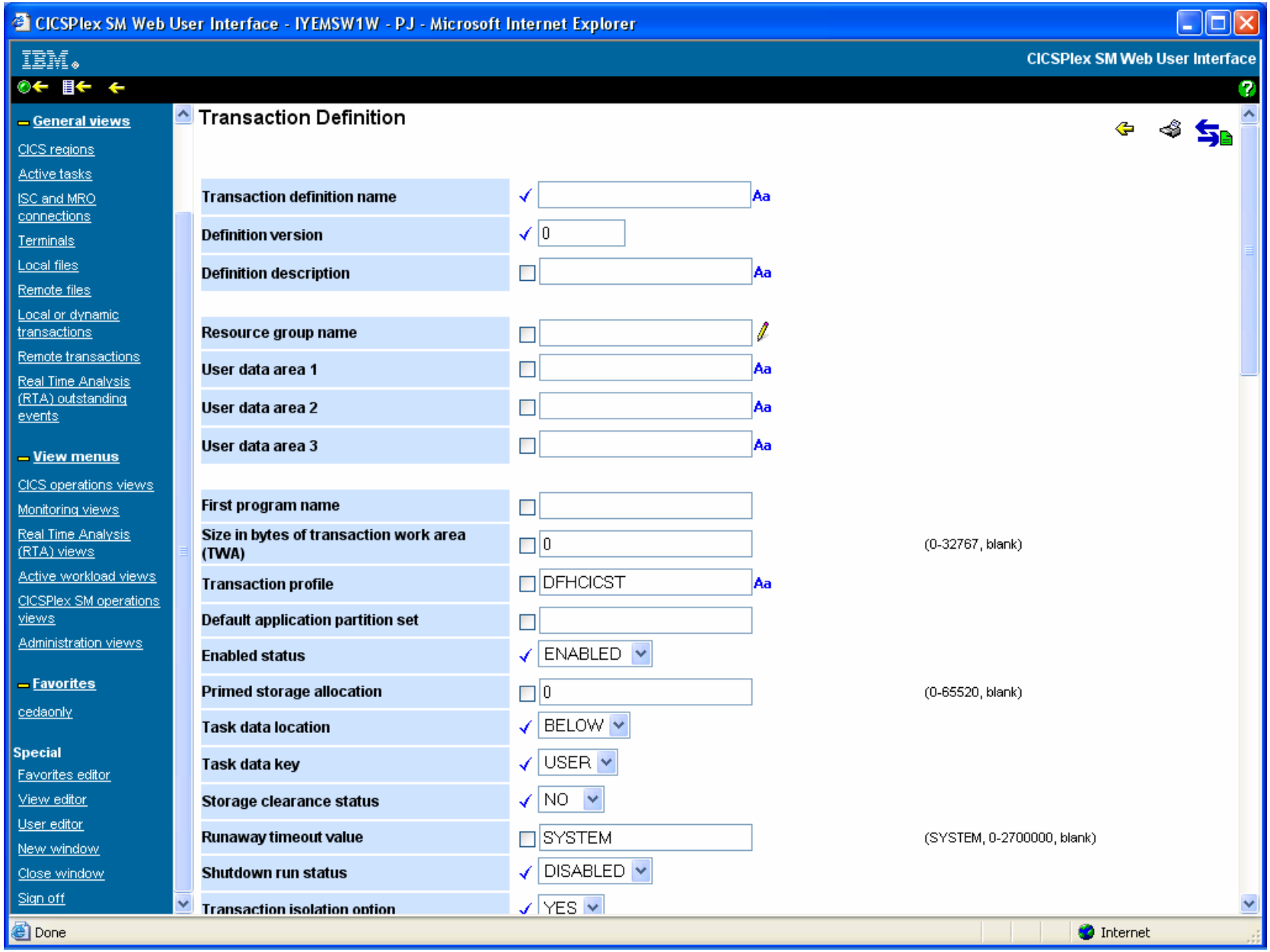
- Easier to see where resources are assigned and how
- Can share resources across multiple environments
- Easier to do global change
- Increased consistency - no mismatches
- Movement from test; QA; production
- No need to edit resource definitions to adapt to topology change
- New application version becomes Resource Description, Resource assignments and changed definitions

Definition migration



BAS Administration views




CICSPlex SM Web User Interface - IYEMSW1W - PJ - Microsoft Internet Explorer
CICSPlex SM Web User Interface
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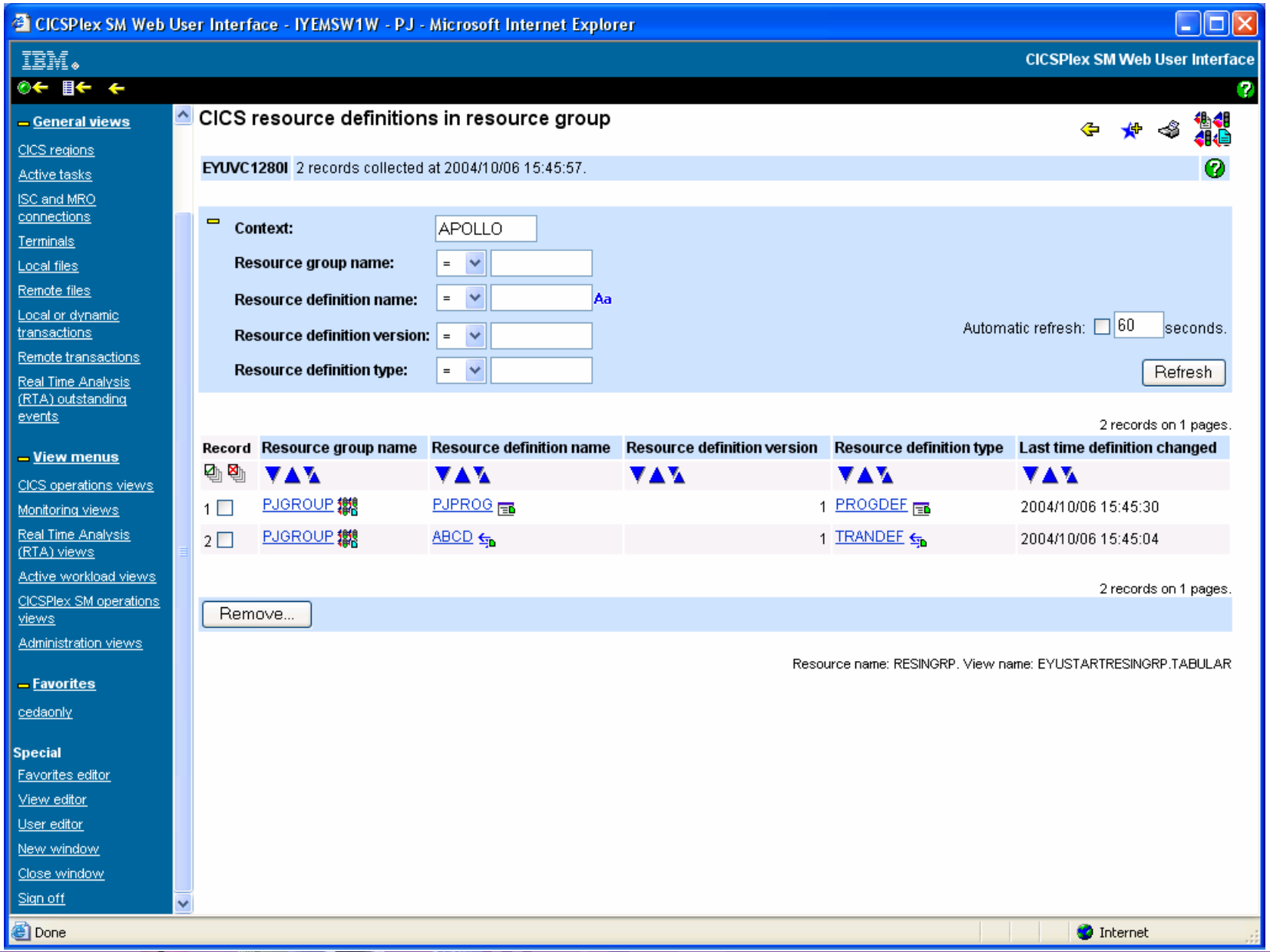
Close window
Sign off
Transaction Definition
Transaction definition name
Definition version
0
Definition description
Resource group name
User data area 1
User data area 2
User data area 3
First program name
Size in bytes of transaction work area (TWA)
0
(0-32767, blank)
Transaction profile
DFHCICST
Default application partition set
Enabled status
ENABLED
Primed storage allocation
0
(0-65520, blank)
Task data location
BELOW
Task data key
USER
Storage clearance status
NO
Runaway timeout value
SYSTEM
(SYSTEM, 0-2700000, blank)
Shutdown run status
DISABLED
Transaction isolation option
YES
Done
Internet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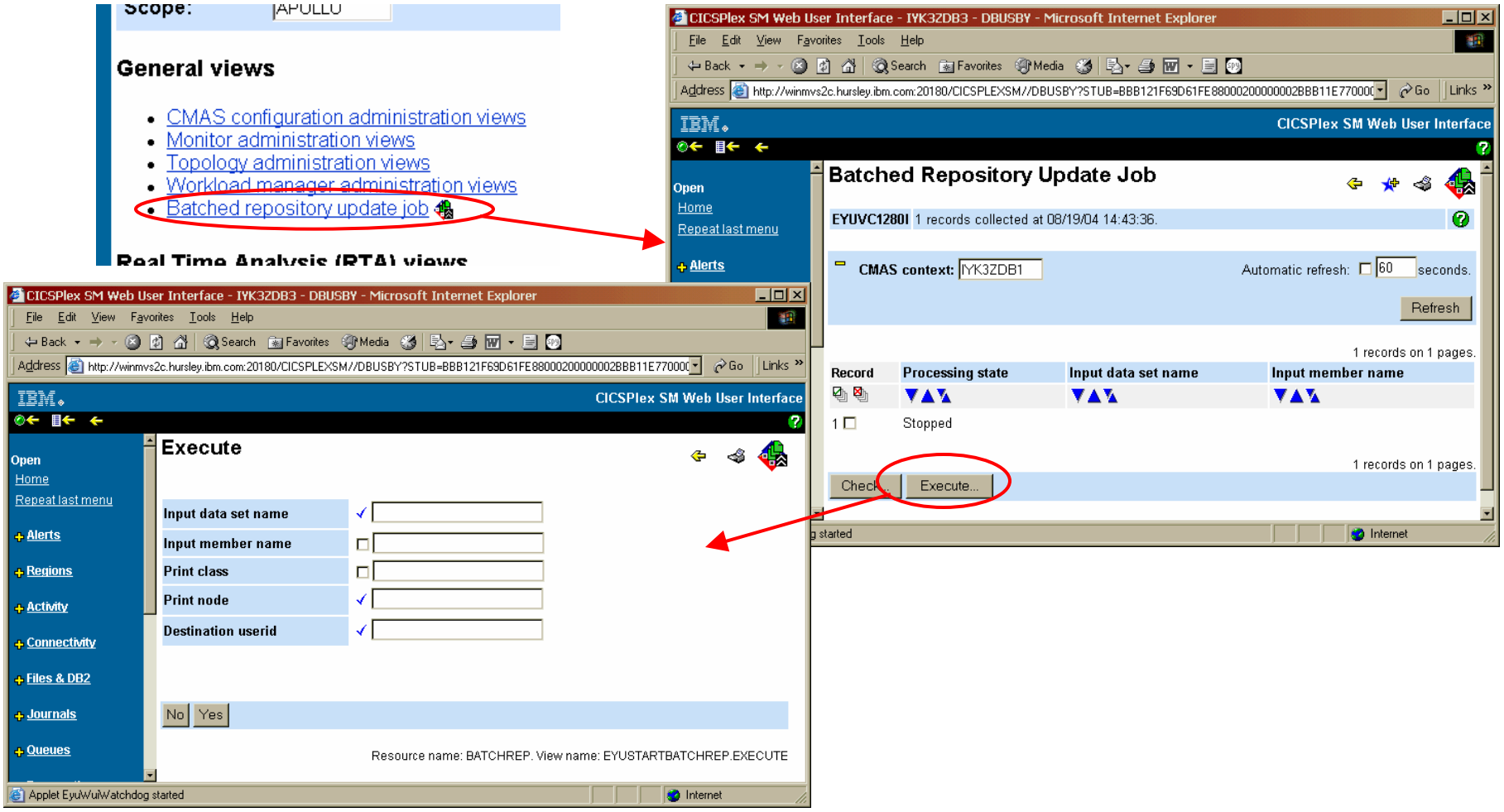
Sign off
CICS resource definitions in resource group
EYUVC1280I 2 records collected at 2004/10/06 15:45:57.
Context: APOLLO
Resource group name: =
Resource definition name: = Aa
Resource definition version: =
Resource definition type: =
Automatic refresh: 60 seconds.
Refresh
2 records on 1 pages.
Record
Resource group name
Resource definition name
Resource definition version
Resource definition type
Last time definition changed
1 PJGROUP PJPROG 1 PROGDEF 2004/10/06 15:45:30
2 PJGROUP ABCD 1 TRANDEF 2004/10/06 15:45:04
2 records on 1 pages.
Remove...
Resource name: RESINGRP. View name: EYUSTARTRESINGRP.TABULAR
Done
Internet

BATCHREP WUI view



Batchrep via JCL stream

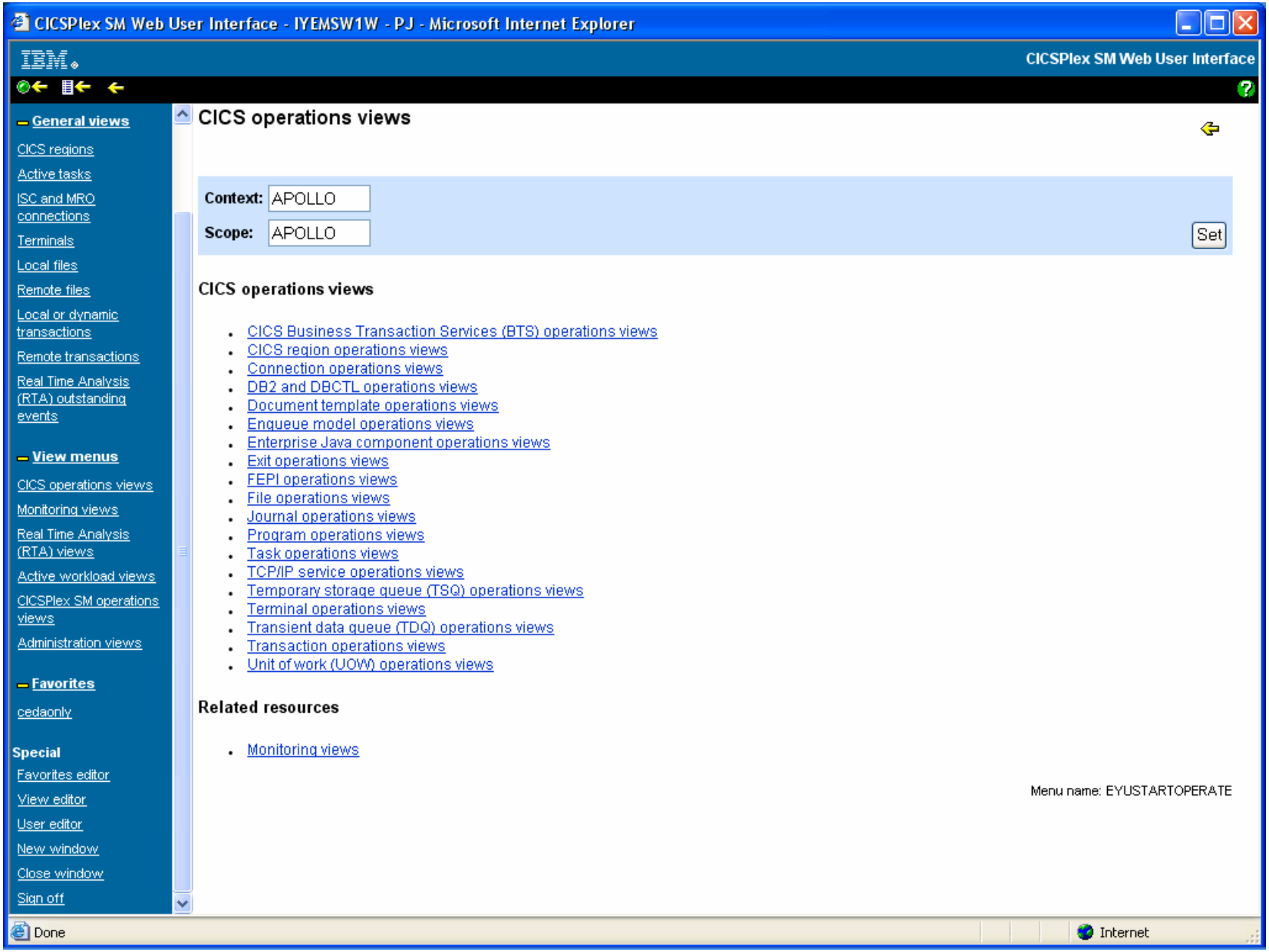
- sample JCL & output

```
//BATCHREP  EXEC PGM=EYU9XDBC,REGION=0M
//STEPLIB   DD DISP=SHR,DSN=CICSTS31.CPSM.SEYULOAD
//SYSPRINT  DD SYSOUT=*
//SYSIN     DD *
CMASNAME(IYK4Z0E1)
CHECK
INPUTDSN(GALLEN.WORK.JCL)
INPUTMEMBER(BCH5955)
PRINTNODE(LOCAL)
OUTPUTUSER(GALLEN)
/*
```

```
CICSPlex/SM Batched Repository Update Utility                Version 310

    Parameters specified:

    CMASNAME(IYK4Z0E1)
    CHECK
    INPUTDSN(GALLEN.WORK.JCL)
    INPUTMEMBER(BCH5955)
    PRINTNODE(LOCAL)
    OUTPUTUSER(GALLEN)

EYUXD0908I  A batched repository update has been submitted to run in CMAS IYK4Z0E1.

EYUXD0909I  CICSPlex SM Batched Repository Update Utility is terminating.
```

Operations & Monitoring

- Operations
  - More data than CEMT
  - Wider scope than CEMT
  - Direct access to CICS regions
- Monitoring
  - Cached data in dataspace
  - Accumulated averages etc
  - Collected corresponding to user specified criteria
    - Includes CICS historical task data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Scope: APOLLO
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CICS Business Transaction Services (BTS) operations views
CICS region operations views
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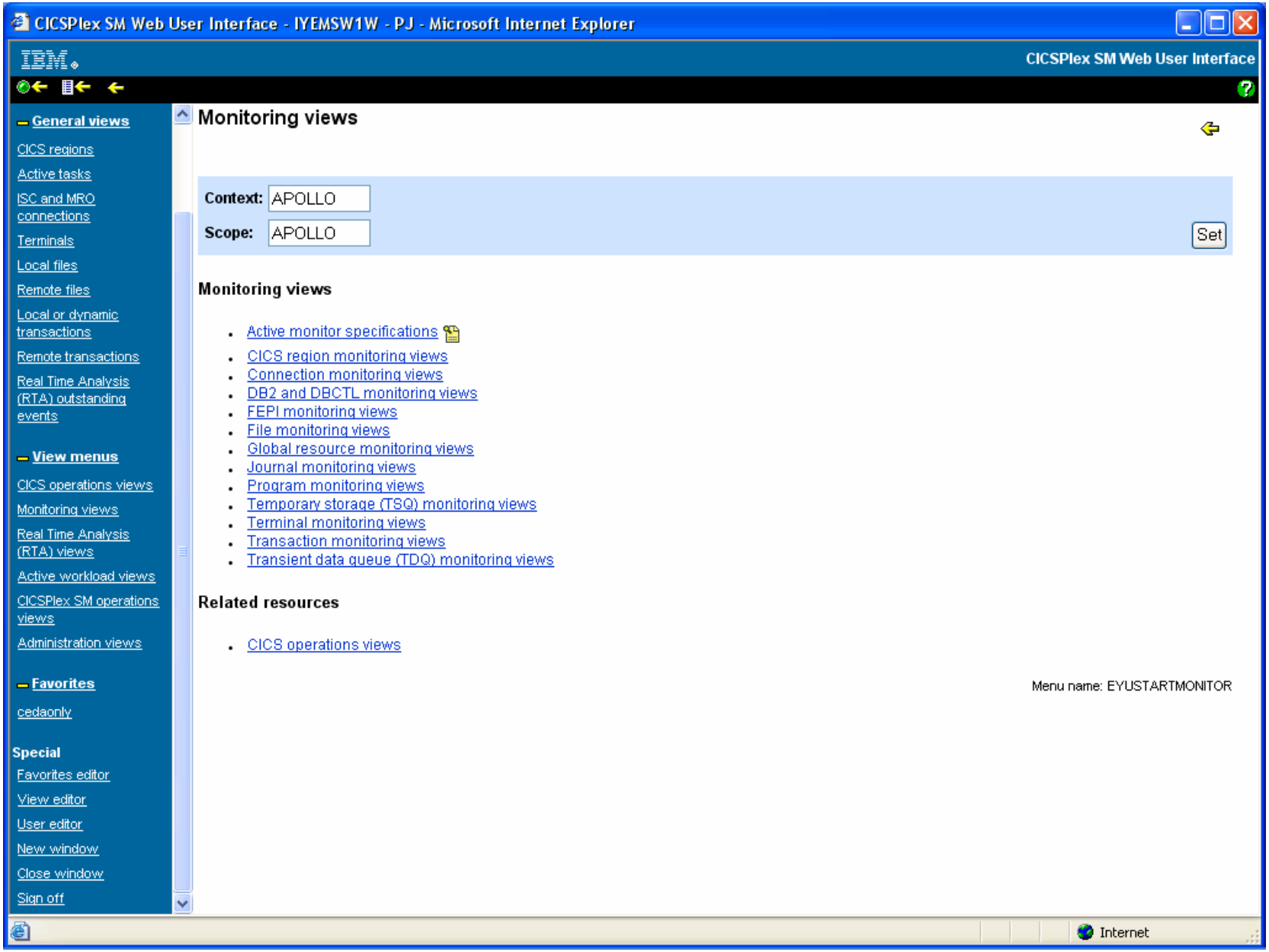
DB2 and DBCTL operations views
Document template operations views
Enqueue model operations views
Enterprise Java component operations views
Exit operations views
FEPI operations views
File operations views
Journal operations views
Program operations views
Task operations views
TCP/IP service operations views
Temporary storage queue (TSQ) operations views
Terminal operations views
Transient data queue (TDQ) operations views
Transaction operations views
Unit of work (UOW) operations views
Related resources
Monitoring views
Menu name: EYUSTARTOPERATE
Done
Internet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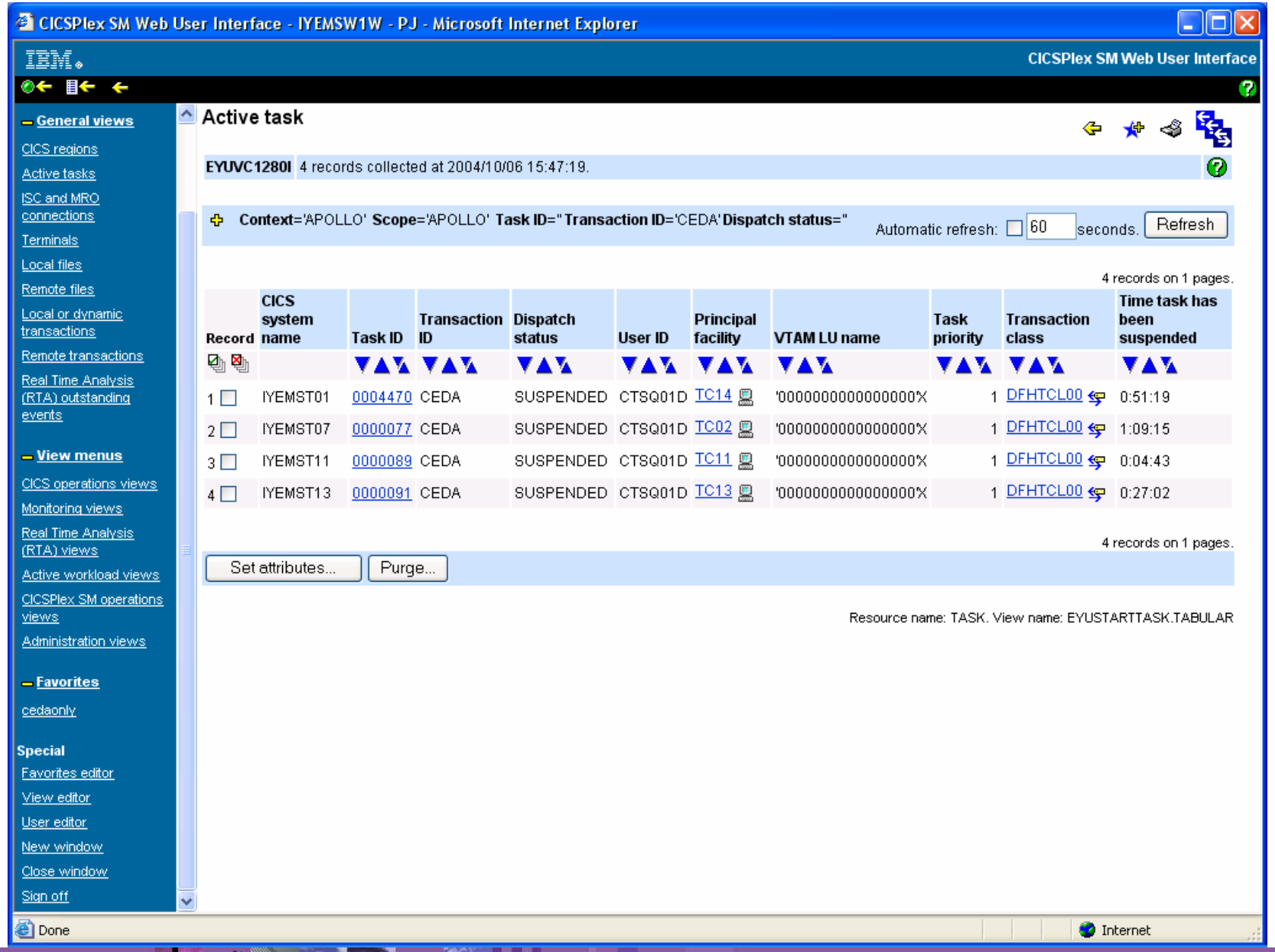
FEPI monitoring views
File monitoring views
Global resource monitoring views
Journal monitoring views
Program monitoring views
Temporary storage (TSQ) monitoring views
Terminal monitoring views
Transaction monitoring views
Transient data queue (TDQ) monitoring views
Related resources
CICS operations views
Menu name: EYUSTARTMONITOR
Internet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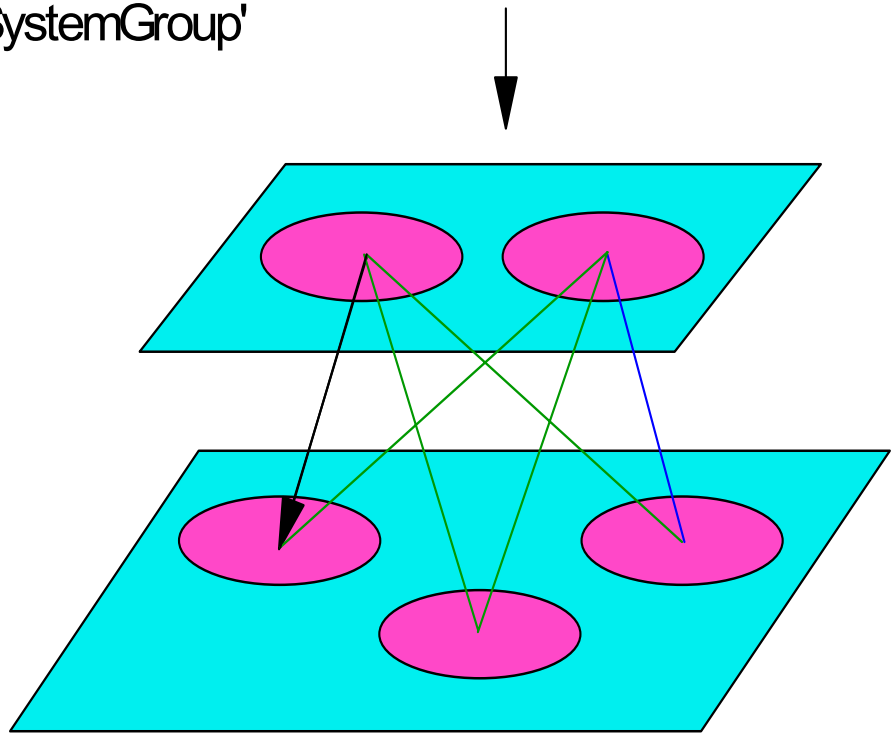
Sign off
Active task
EYUVC1280I 4 records collected at 2004/10/06 15:47:19.
Context='APOLLO' Scope='APOLLO' Task ID='' Transaction ID='CEDA' Dispatch status=''
Automatic refresh: 60 seconds. Refresh
4 records on 1 pages.
Record | CICS system name | Task ID | Transaction ID | Dispatch status | User ID | Principal facility | VTAM LU name | Task priority | Transaction class | Time task has been suspended
1 IYEMST01 0004470 CEDA SUSPENDED CTSQ01D TC14 '0000000000000000'X 1 DFHTCL00 0:51:19
2 IYEMST07 0000077 CEDA SUSPENDED CTSQ01D TC02 '0000000000000000'X 1 DFHTCL00 1:09:15
3 IYEMST11 0000089 CEDA SUSPENDED CTSQ01D TC11 '0000000000000000'X 1 DFHTCL00 0:04:43
4 IYEMST13 0000091 CEDA SUSPENDED CTSQ01D TC13 '0000000000000000'X 1 DFHTCL00 0:27:02
4 records on 1 pages.
Set attributes... Purge...
Resource name: TASK. View name: EYUSTARTTASK.TABULAR
Done
Internet

Dynamic Workload Management

- Dynamically balances workload from multiple routing regions to multiple targets where workload is processed giving high availability
- Balanced according to
  - Queue algorithm
  - MVS Goal algorithm
- Supports
  - Workload separation
  - Affinity management
- Applies to
  - Dynamic transaction routing
  - Start <termid) requests
  - Dynamic DPL
  - EJB requests
  - 3270 bridge
  - CICS BTS activities and processes

Dynamic Transaction routing

trangrp(x) = {tranid}
(userid,luname,trangrp,processtype)->SystemGroup
Associated with SystemGroup'

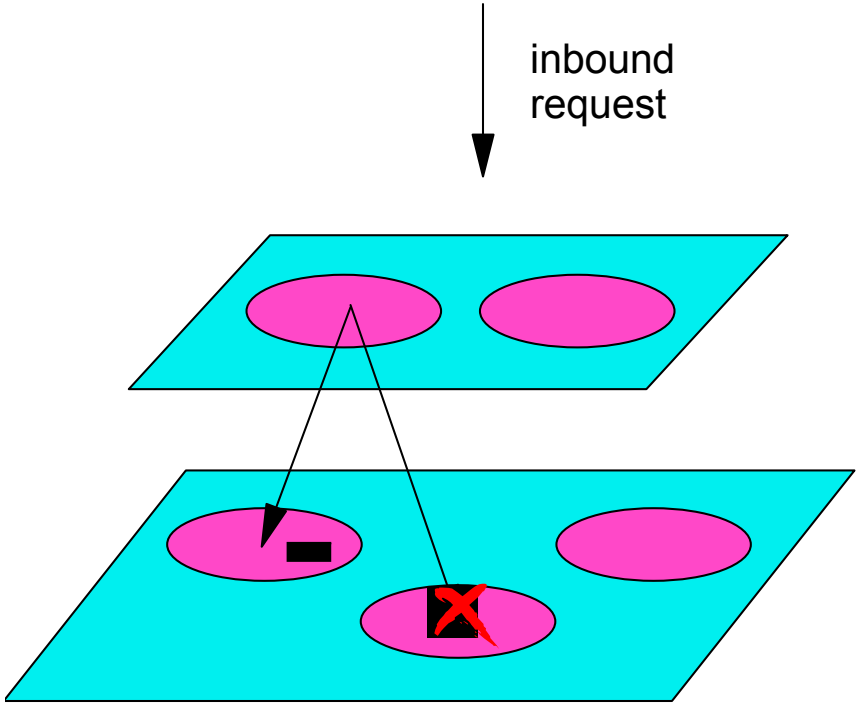


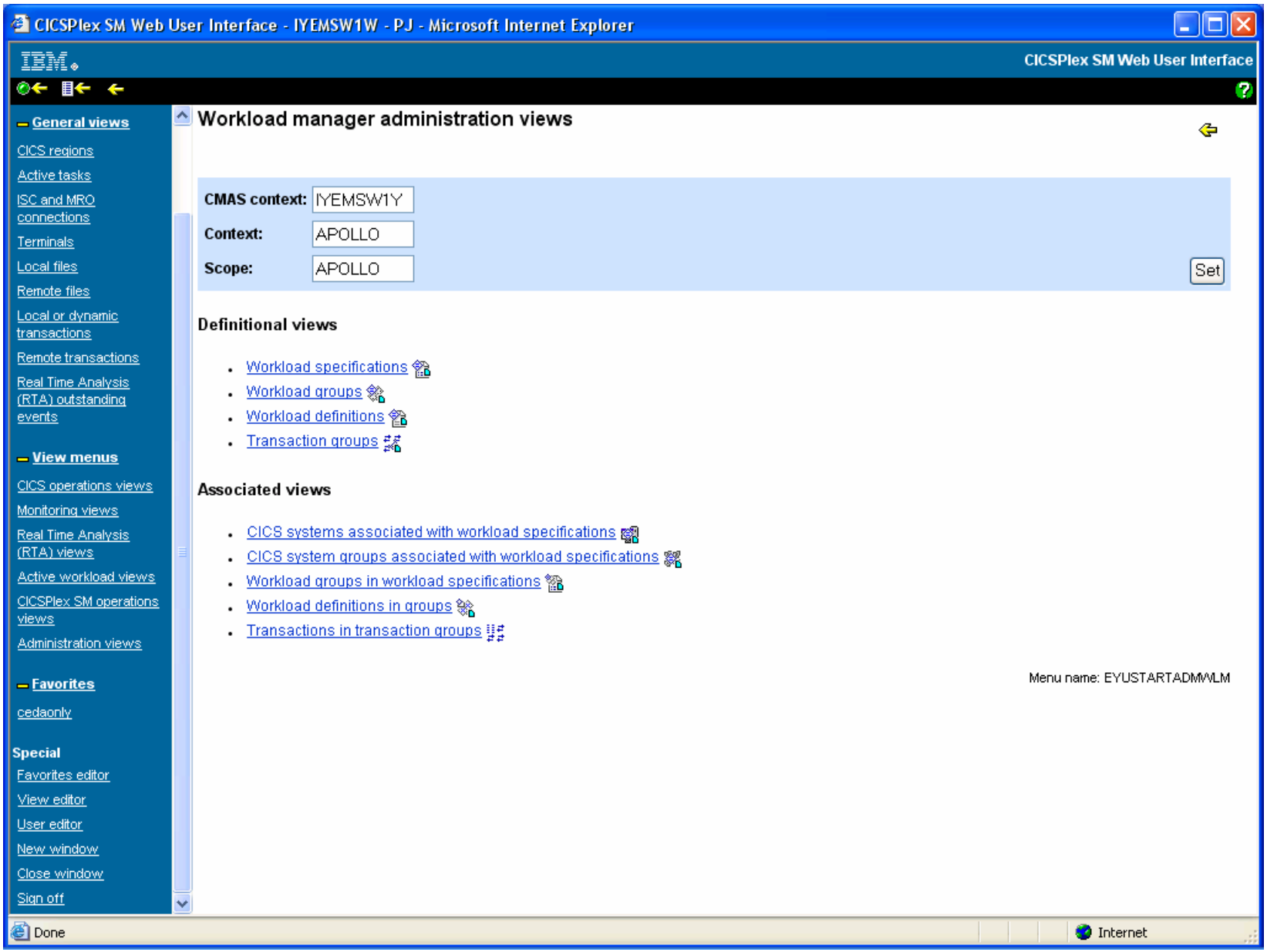
tranid(abcd)
dynamic(yes)

tranid(abcd)
dynamic(no)

Affinities

- Inbound request routed
- Creates data in region
- Next route is different region
- Fails (hopefully!)

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CMAS context: IYEMSW1Y
Context: APOLLO
Scope: APOLLO
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Definitional views
Workload specifications
Workload groups
Workload definitions
Transaction groups
Associated views
CICS systems associated with workload specifications
CICS system groups associated with workload specifications
Workload groups in workload specifications
Workload definitions in groups
Transactions in transaction groups
Menu name: EYUSTARTADMWLM
Done
Internet

Detecting potential problems – Real Time Analysis

- Provides the ability to detect states within CICSplex
- Provides the ability to take actions
  - Internally – perform a SET action when the predicate is true
  - Externally – send a console message/SNA Generic Alert/ CPSM EVENT followed by script execution
- Three flavours provided
  - System Availability Monitoring (SAM)
  - MAS Resource Monitoring (MRM)
  - Analysis Point Monitoring (APM)

RTA - System Availability Monitoring

- Out of the Box function
  - Detects common states such as SOS, MAXTASK, Dumping
- If Time period specified for CICS region
  - Detects CICS is down when it should be up
- Also detects STALL state
  - Matrix of task number versus SUSPENDTYPE CPUTIME from EXEC CICS INQUIRE TASK
  - If task is in SUSPENDTYPE for longer than threshold value then alert is raised

RTA – MAS Resource monitoring

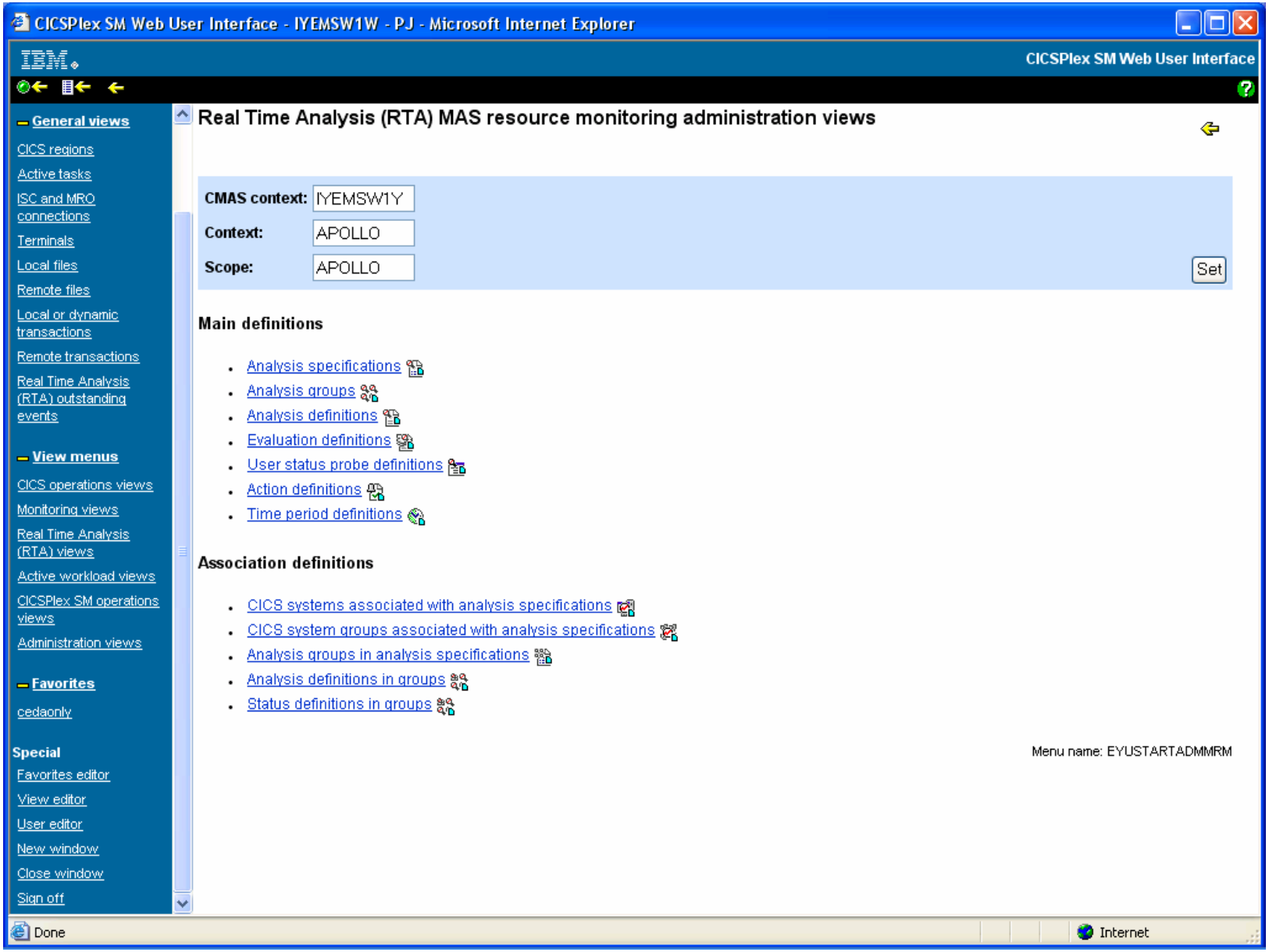
- Allows user to specify thresholds on any attribute of any object instance
- Predicates may be combined via ‘and’ ‘or’ ‘not’ logic
- Simple thresholds
  - If tran(abcd) status ne enabled then …..
- Complex thresholds
  - Select tran(abcd)
  - When (0< responsetime<5seconds) then notification A
  - When (5< responsetime<10seconds) then notification B
  - …..
- Can also cater for transients on metric being tested
- Provides aggregation mechanisms such as AVG,HWM,LWM…
- Applies to each region within the specified scope

RTA – Analysis Point Monitoring (APM)

- Thresholds specified similarly to MRM
- Applies to sets of systems within the SCOPE

Fixing problems

- Internal automation via RTA
  - Via modification string expressions (SET commands)
    - Attribute1=value1,attribute2=value2……
- External Automation via RTA
  - Via Automation products such as NetView
    - Message table entries for CPSM generated console messages
    - Capture of SNA Generic alerts
    - Execution of CPSM REXX API script
  - Via a CPSM API program
    - Utilising LISTEN verb
    - Execution of CPSM API commands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CMAS context: IYEMSW1Y
Context: APOLLO
Scope: APOLLO
Set
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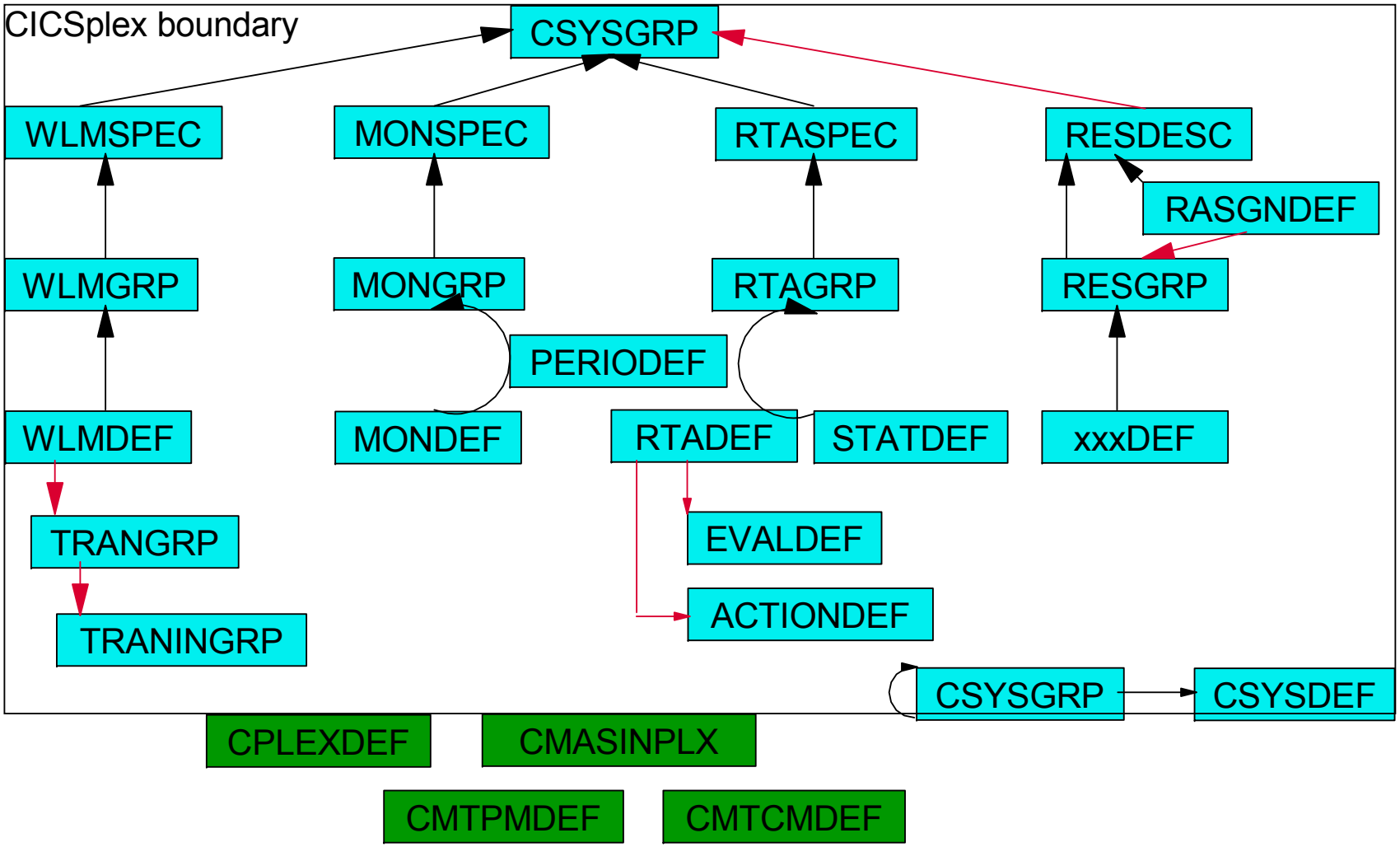
Action definitions
Time period definitions
Association definitions
CICS systems associated with analysis specifications
CICS system groups associated with analysis specifications
Analysis groups in analysis specifications
Analysis definitions in groups
Status definitions in groups
Menu name: EYUSTARTADMMRM
Done
Internet

Writing automation scripts – the CPSM APIs

- Many tasks are ‘one offs’
- Others need triggering via automation
  - Pre market open checks
- Others involve other subsystems
  - Checking both CICS and z/OS environments
- Other involve complex operational procedures

- CPSM provides access to all of its function via
  - EXEC CPSM verb for compiled programs (C, PLI, ASM)
  - REXX CPSM API programs
  - Synchronous and Asynchronous access
  - EVENT pub/sub process

CICSPlex SM Administrational objects



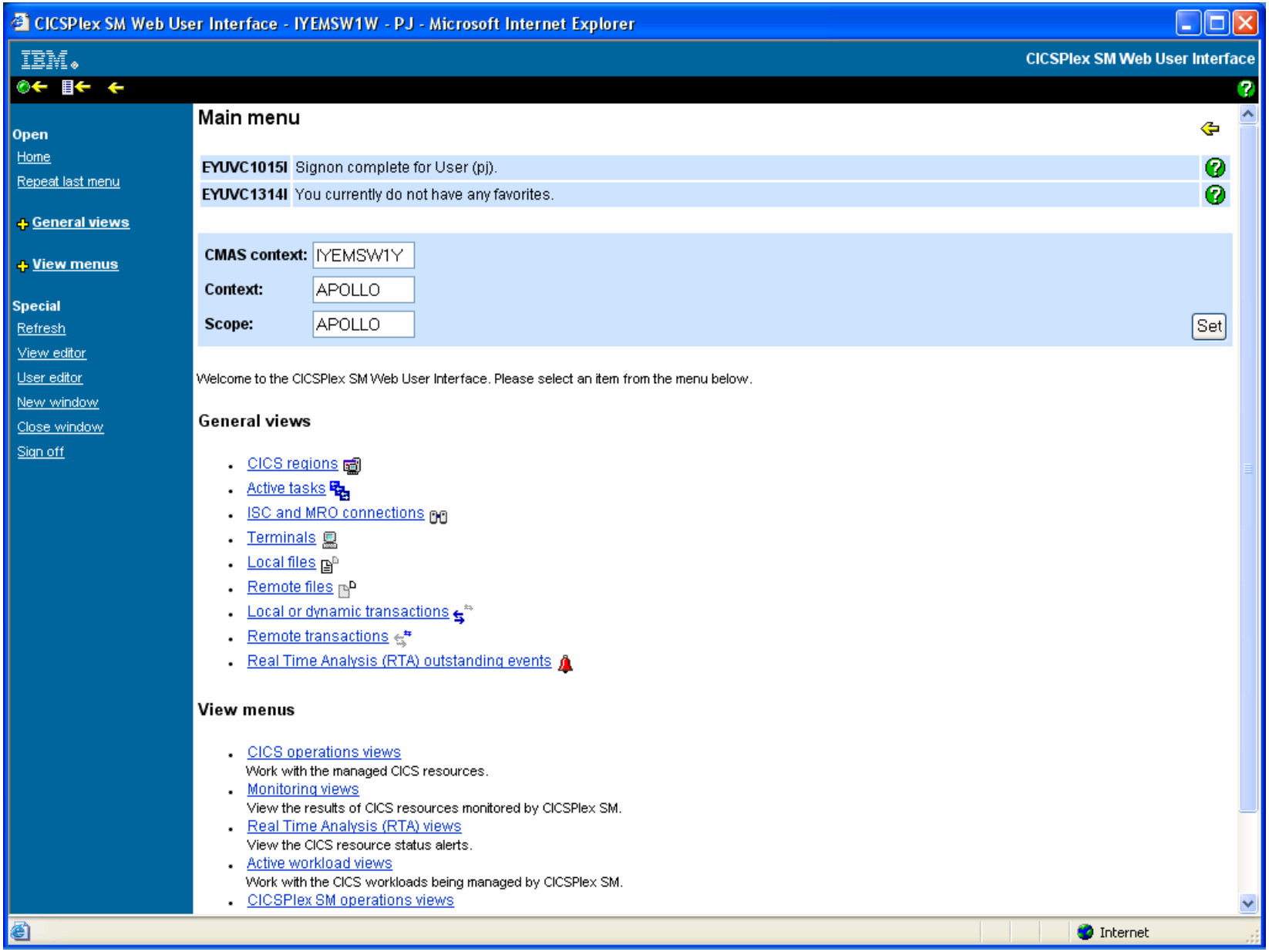
Web User Interface

- Familiar Browser environment
  - Introduced for operations in CICS TS 1.3
  - Now fully capable
- Menu, Tabular/Detail view structure
- Hyperlinks between
  - levels of detail
    - e.g. tasks for given unit of work in CICSplex to task detail
  - resource relationships
    - e.g. navigate to program referenced by transaction
- NLS enabled
- User profiles
- Favourites support

- Capability to build your own menus and views via view editor
- Capability to manage user profiles and favourites via user and favourites editor

- Control transaction COVC

WUI runtime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CICSPlex SM Web User Interface
Open
Home
Repeat last menu
General views
View menus
Special
Refresh
View editor
User editor
New window
Close window
Sign off
Main menu
EYUVC1015I Signon complete for User (pj).
EYUVC1314I You currently do not have any favorites.
CMAS context: IYEMSW1Y
Context: APOLLO
Scope: APOLLO
Set
Welcome to the CICSPlex SM Web User Interface. Please select an item from the menu below.
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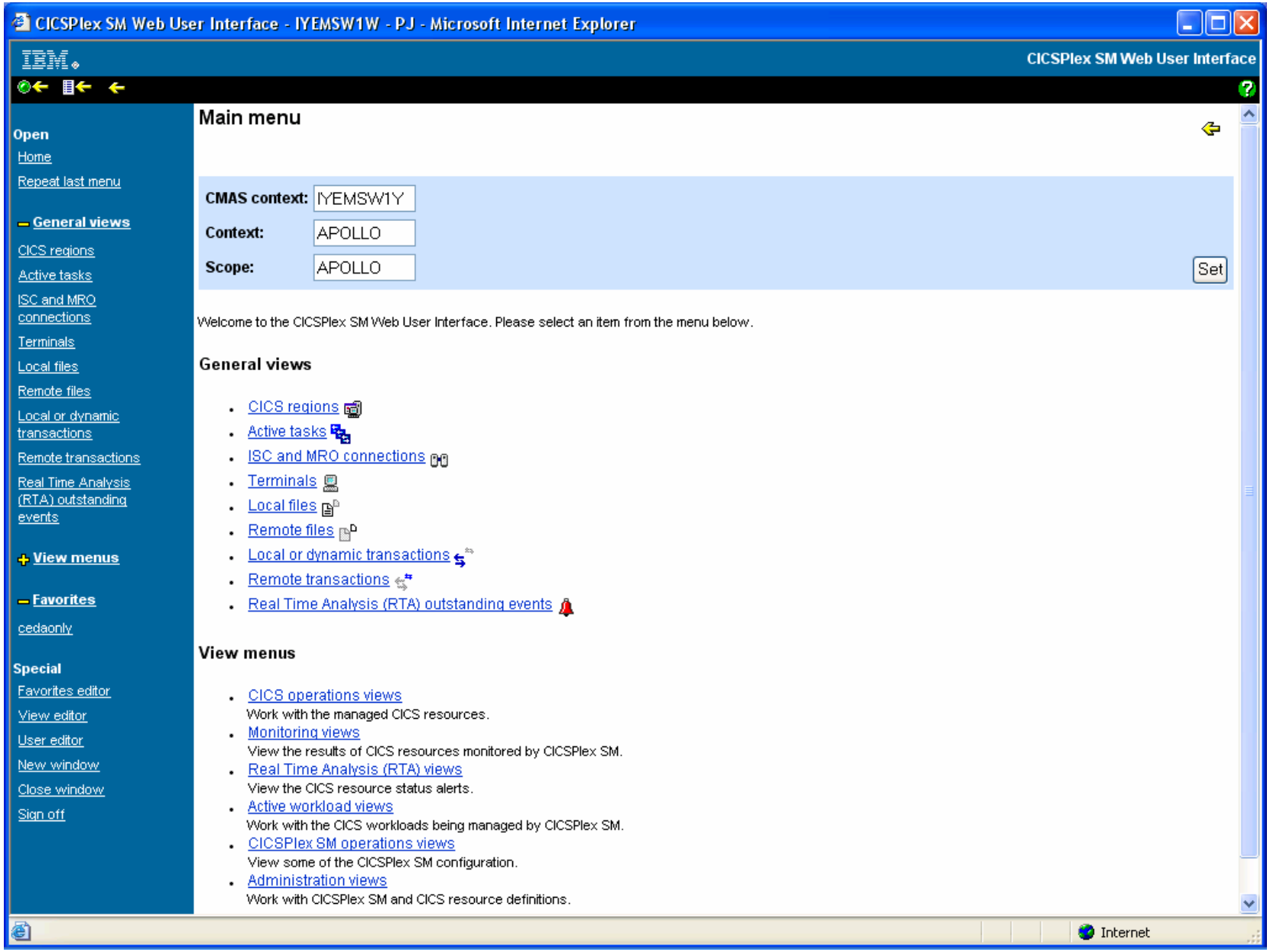
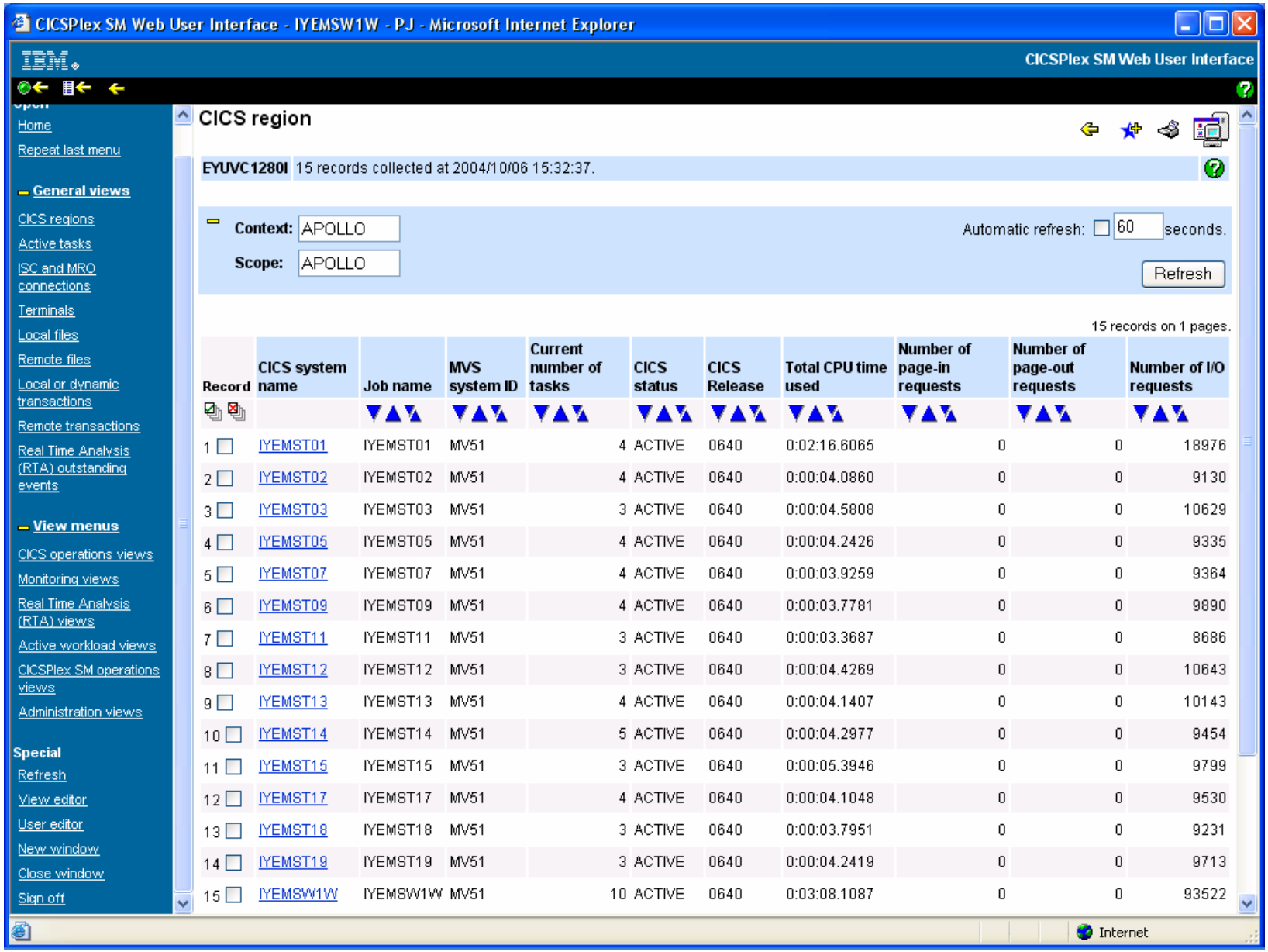
Work with the managed CICS resources.
Monitoring views
View the results of CICS resources monitored by CICSPlex SM.
Real Time Analysis (RTA) views
View the CICS resource status alerts.
Active workload views
Work with the CICS workloads being managed by CICSPlex SM.
CICSPlex SM operations views
Internet


CICSPlex SM Web User Interface - IYEMSW1W - PJ - Microsoft Internet Explorer
CICSPlex SM Web User Interface
Open
Home
Repeat last menu
General views
CICS regions
Active tasks
ISC and MRO connections
Terminals
Local files
Remote files
Local or dynamic transactions
Remote transactions
Real Time Analysis (RTA) outstanding events
View menus
Favorites
cedaonly
Special
Favorites editor
View editor
User editor
New window
Close window
Sign off
Main menu
CMAS context: IYEMSW1Y
Context: APOLLO
Scope: APOLLO
Set
Welcome to the CICSPlex SM Web User Interface. Please select an item from the menu below.
General views
CICS regions
Active tasks
ISC and MRO connections
Terminals
Local files
Remote files
Local or dynamic transactions
Remote transactions
Real Time Analysis (RTA) outstanding events
View menus
CICS operations views
Work with the managed CICS resources.
Monitoring views
View the results of CICS resources monitored by CICSPlex SM.
Real Time Analysis (RTA) views
View the CICS resource status alerts.
Active workload views
Work with the CICS workloads being managed by CICSPlex SM.
CICSPlex SM operations views
View some of the CICSPlex SM configuration.
Administration views
Work with CICSPlex SM and CICS resource definitions.
Internet


CICSPlex SM Web User Interface - IYEMSW1W - PJ - Microsoft Internet Explorer
CICSPlex SM Web User Interface
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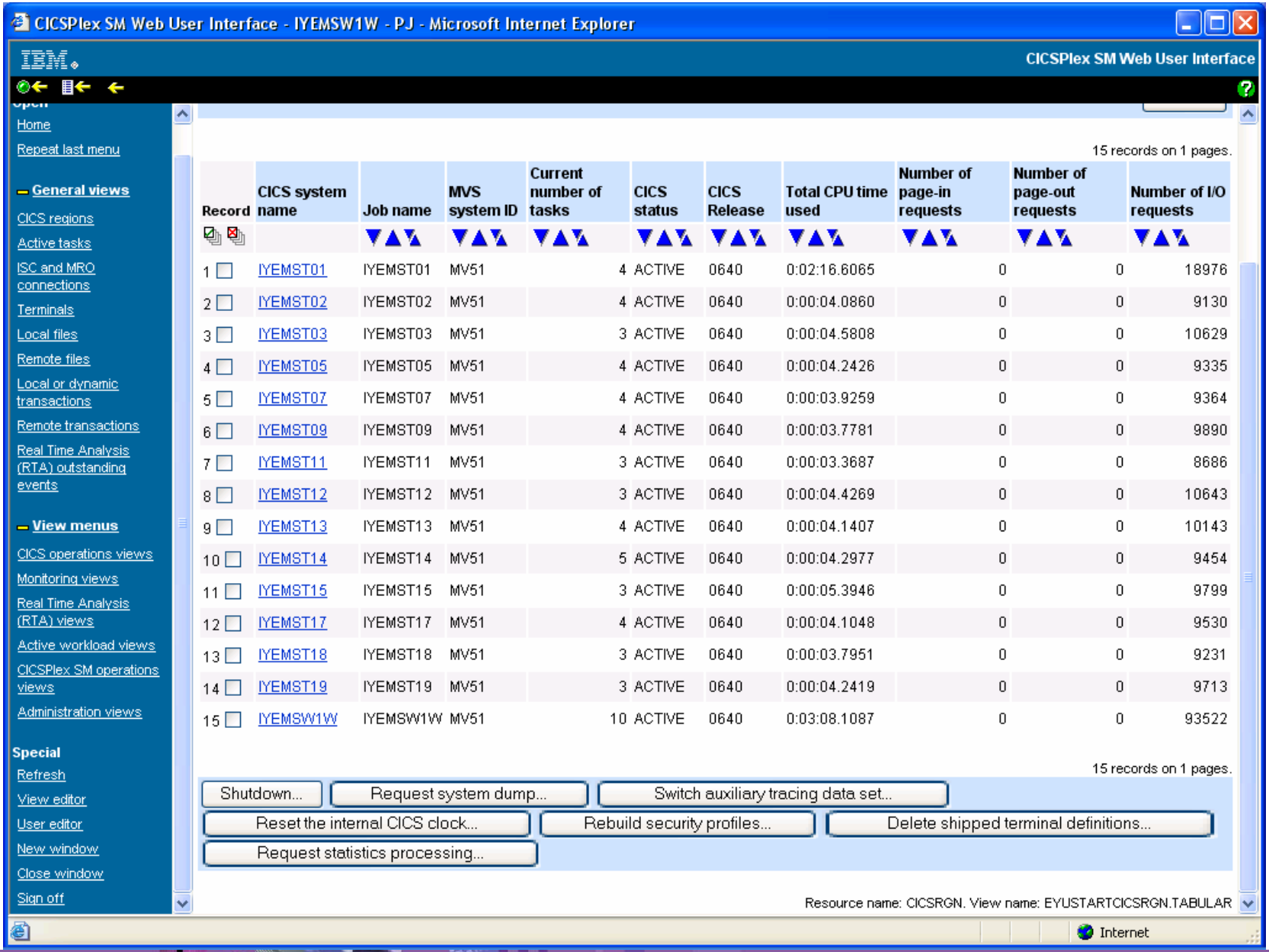
View menus
CICS operations views
Monitoring views
Real Time Analysis (RTA) views
Active workload views
CICSPlex SM operations views
Administration views
Special
Refresh
View editor
User editor
New window
Close window
Sign off
CICS region
EYUVC1280I 15 records collected at 2004/10/06 15:32:37.
Context: APOLLO
Scope: APOLLO
Automatic refresh: 60 seconds.
Refresh
15 records on 1 pages.
Record
CICS system name
Job name
MVS system ID
Current number of tasks
CICS status
CICS Release
Total CPU time used
Number of page-in requests
Number of page-out requests
Number of I/O requests
1 IYEMST01 IYEMST01 MV51 4 ACTIVE 0640 0:02:16.6065 0 0 18976
2 IYEMST02 IYEMST02 MV51 4 ACTIVE 0640 0:00:04.0860 0 0 9130
3 IYEMST03 IYEMST03 MV51 3 ACTIVE 0640 0:00:04.5808 0 0 10629
4 IYEMST05 IYEMST05 MV51 4 ACTIVE 0640 0:00:04.2426 0 0 9335
5 IYEMST07 IYEMST07 MV51 4 ACTIVE 0640 0:00:03.9259 0 0 9364
6 IYEMST09 IYEMST09 MV51 4 ACTIVE 0640 0:00:03.7781 0 0 9890
7 IYEMST11 IYEMST11 MV51 3 ACTIVE 0640 0:00:03.3687 0 0 8686
8 IYEMST12 IYEMST12 MV51 3 ACTIVE 0640 0:00:04.4269 0 0 10643
9 IYEMST13 IYEMST13 MV51 4 ACTIVE 0640 0:00:04.1407 0 0 10143
10 IYEMST14 IYEMST14 MV51 5 ACTIVE 0640 0:00:04.2977 0 0 9454
11 IYEMST15 IYEMST15 MV51 3 ACTIVE 0640 0:00:05.3946 0 0 9799
12 IYEMST17 IYEMST17 MV51 4 ACTIVE 0640 0:00:04.1048 0 0 9530
13 IYEMST18 IYEMST18 MV51 3 ACTIVE 0640 0:00:03.7951 0 0 9231
14 IYEMST19 IYEMST19 MV51 3 ACTIVE 0640 0:00:04.2419 0 0 9713
15 IYEMSW1W IYEMSW1W MV51 10 ACTIVE 0640 0:03:08.1087 0 0 93522
Internet


CICSPlex SM Web User Interface - IYEMSW1W - PJ - Microsoft Internet Explorer
CICSPlex SM Web User Interface
Home
Repeat last menu
General views
CICS regions
Active tasks
ISC and MRO connections
Terminals
Local files
Remote files
Local or dynamic transactions
Remote transactions
Real Time Analysis (RTA) outstanding events
View menus
CICS operations views
Monitoring views
Real Time Analysis (RTA) views
Active workload views
CICSPlex SM operations views
Administration views
Special
Refresh
View editor
User editor
New window
Close window
Sign off
15 records on 1 pages.
Record
CICS system name
Job name
MVS system ID
Current number of tasks
CICS status
CICS Release
Total CPU time used
Number of page-in requests
Number of page-out requests
Number of I/O requests
1 IYEMST01 IYEMST01 MV51 4 ACTIVE 0640 0:02:16.6065 0 0 18976
2 IYEMST02 IYEMST02 MV51 4 ACTIVE 0640 0:00:04.0860 0 0 9130
3 IYEMST03 IYEMST03 MV51 3 ACTIVE 0640 0:00:04.5808 0 0 10629
4 IYEMST05 IYEMST05 MV51 4 ACTIVE 0640 0:00:04.2426 0 0 9335
5 IYEMST07 IYEMST07 MV51 4 ACTIVE 0640 0:00:03.9259 0 0 9364
6 IYEMST09 IYEMST09 MV51 4 ACTIVE 0640 0:00:03.7781 0 0 9890
7 IYEMST11 IYEMST11 MV51 3 ACTIVE 0640 0:00:03.3687 0 0 8686
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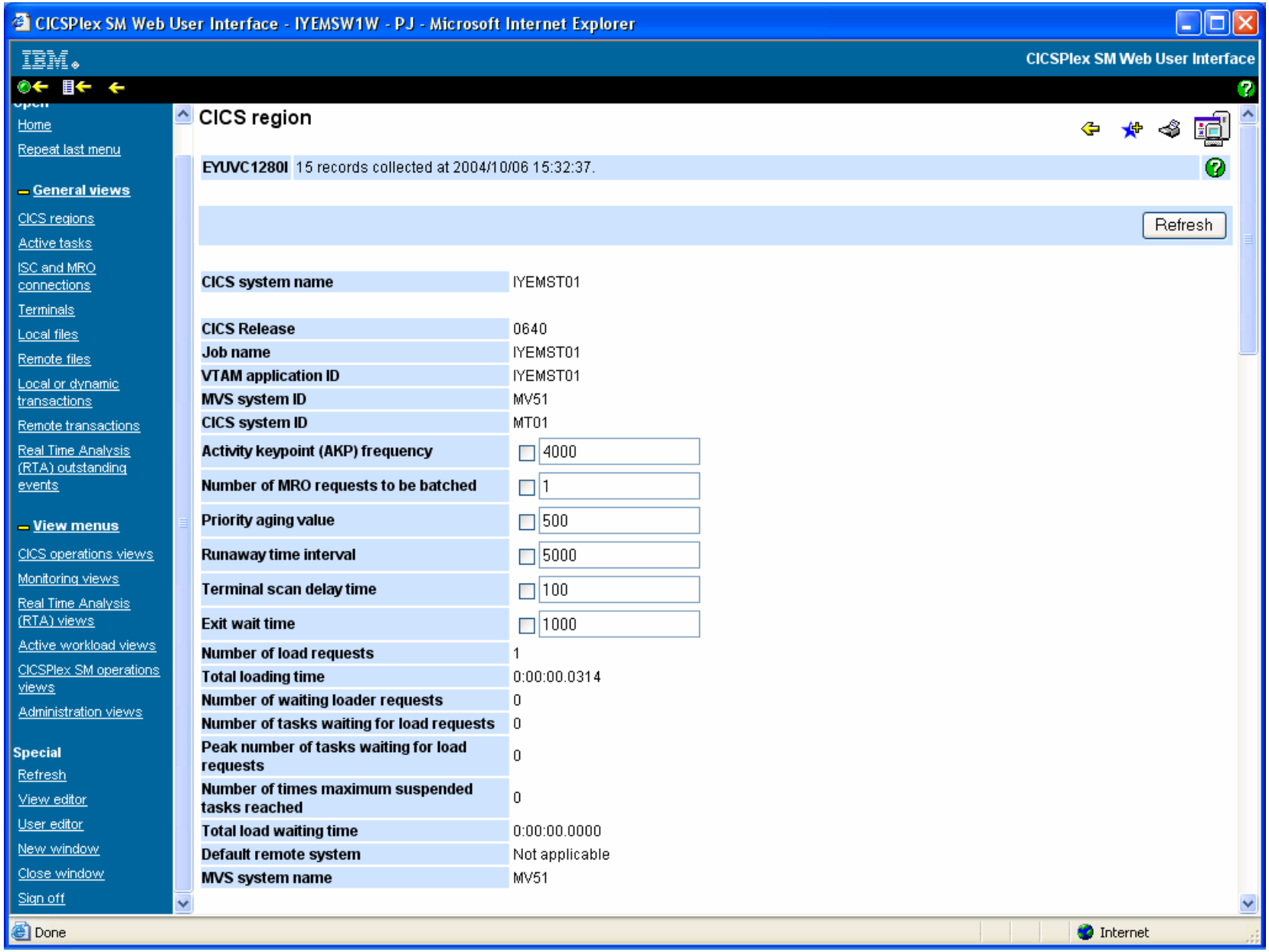
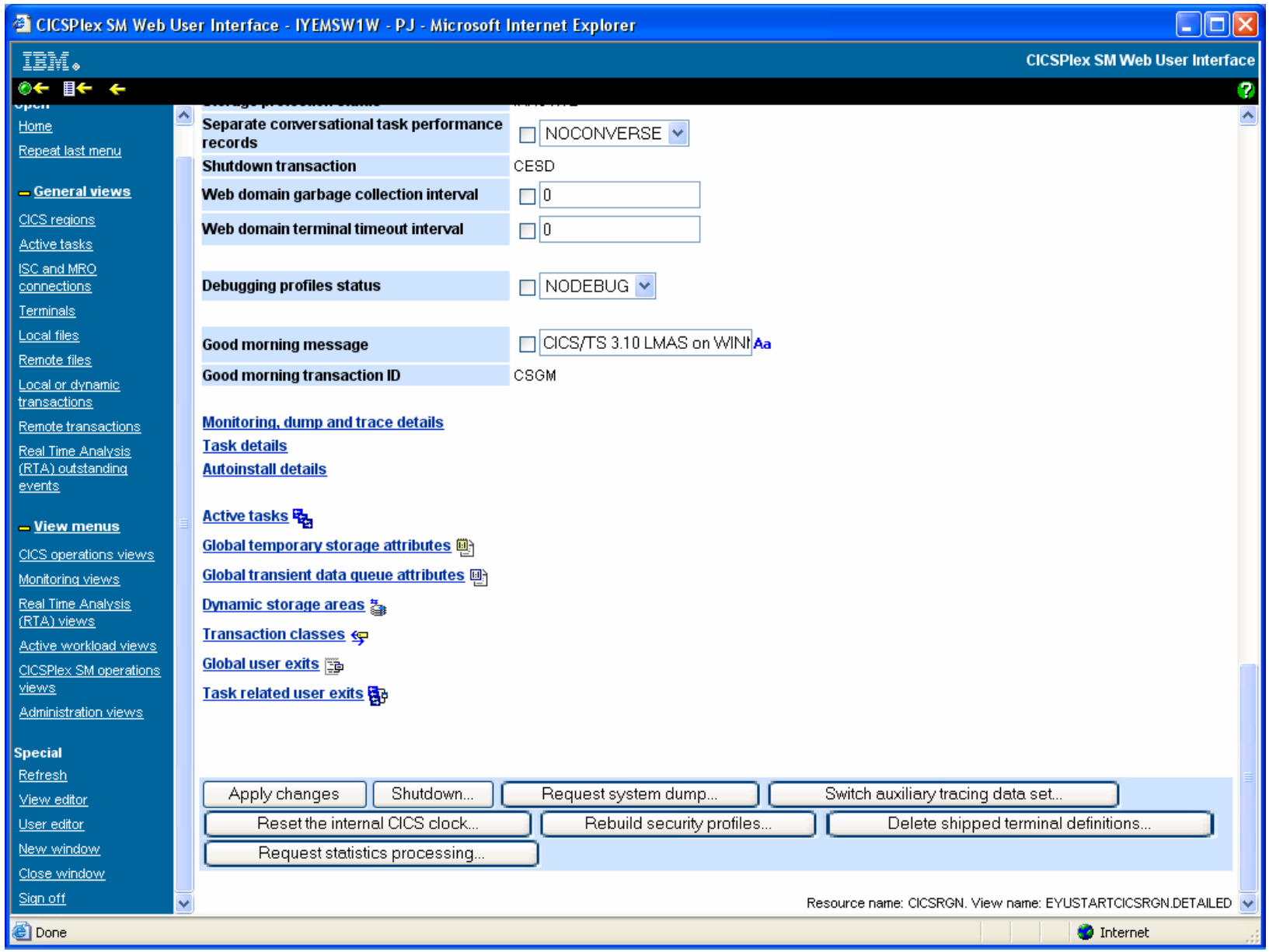
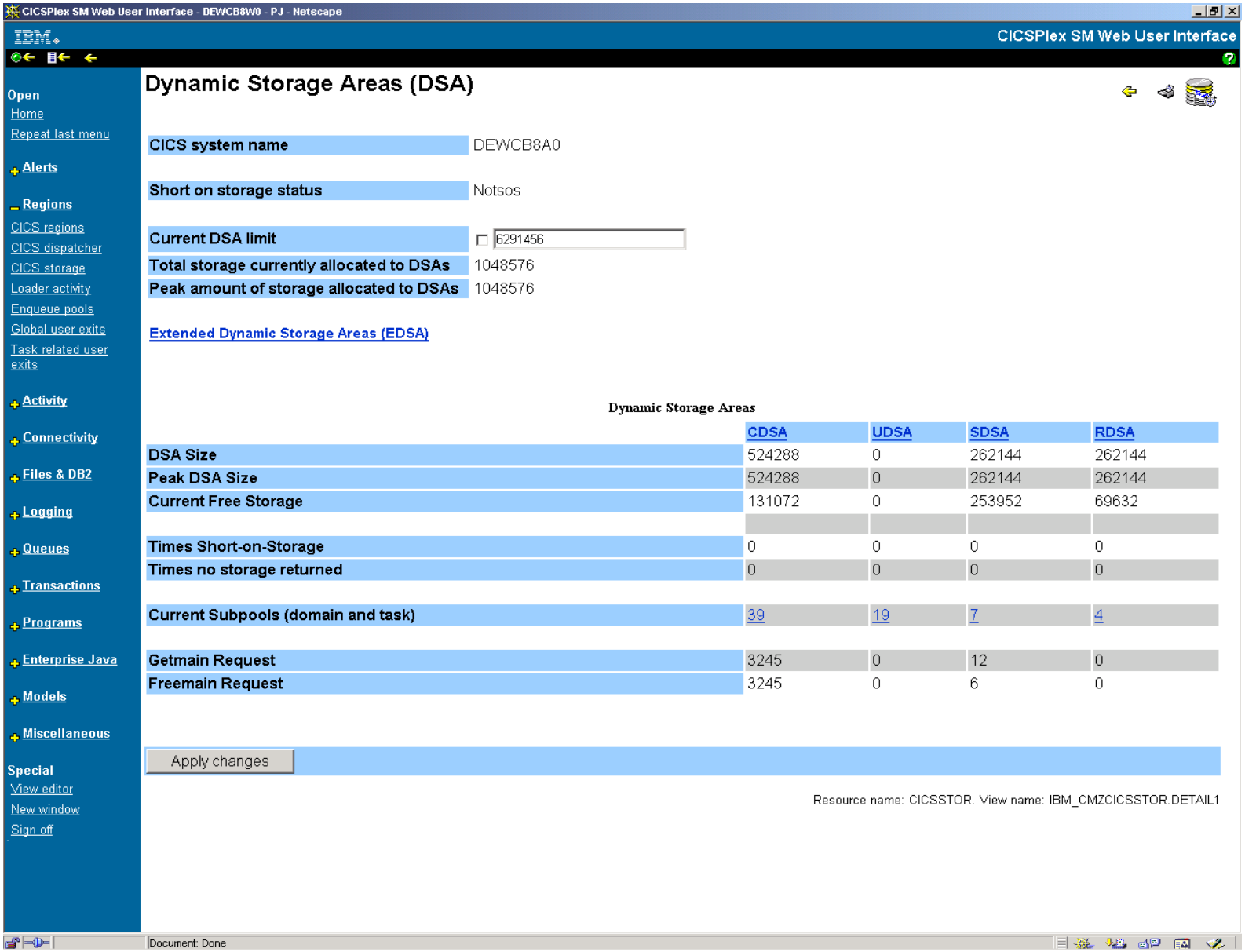
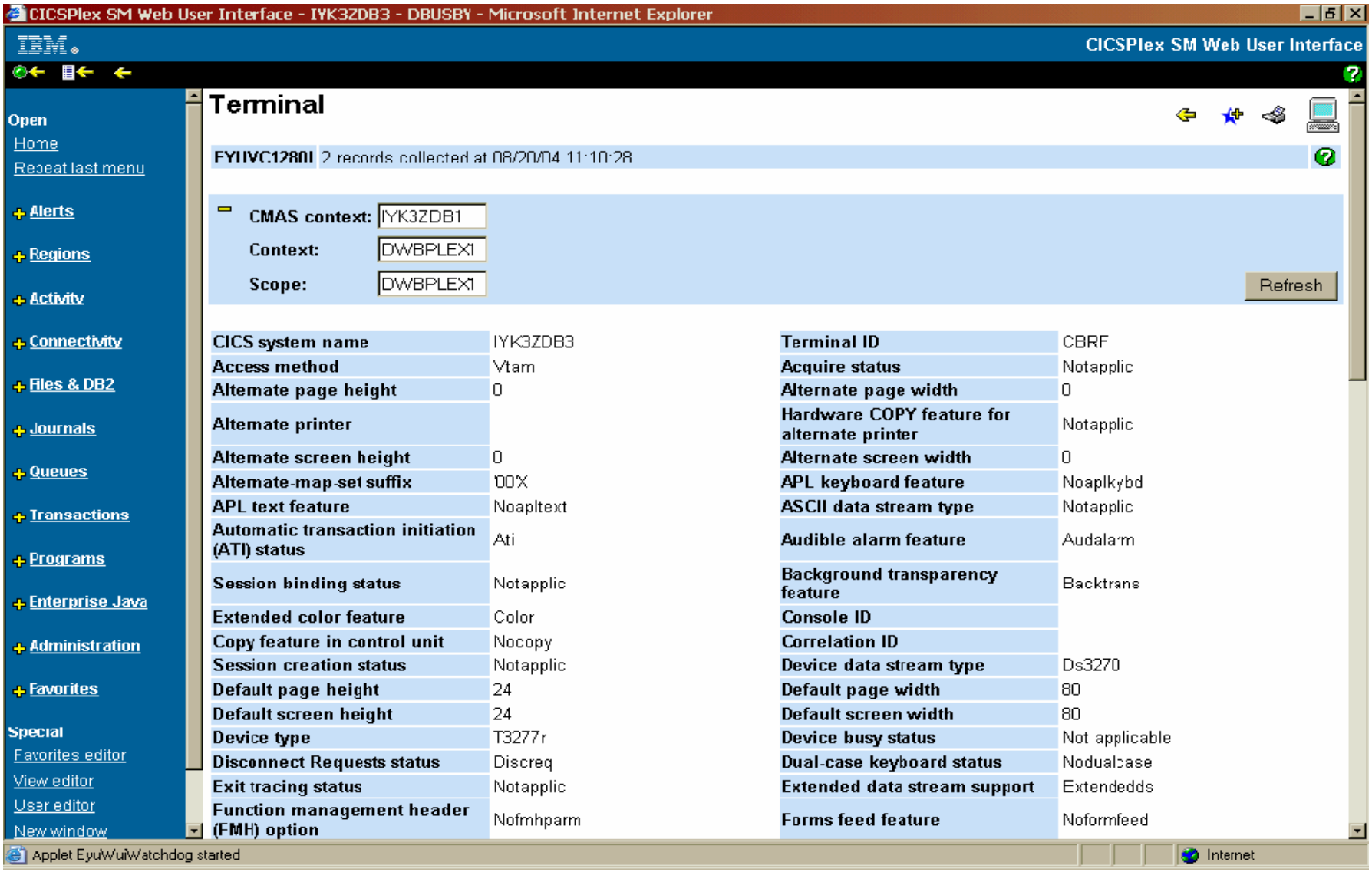
9 IYEMST13 IYEMST13 MV51 4 ACTIVE 0640 0:00:04.1407 0 0 10143
10 IYEMST14 IYEMST14 MV51 5 ACTIVE 0640 0:00:04.2977 0 0 9454
11 IYEMST15 IYEMST15 MV51 3 ACTIVE 0640 0:00:05.3946 0 0 9799
12 IYEMST17 IYEMST17 MV51 4 ACTIVE 0640 0:00:04.1048 0 0 9530
13 IYEMST18 IYEMST18 MV51 3 ACTIVE 0640 0:00:03.7951 0 0 9231
14 IYEMST19 IYEMST19 MV51 3 ACTIVE 0640 0:00:04.2419 0 0 9713
15 IYEMSW1W IYEMSW1W MV51 10 ACTIVE 0640 0:03:08.1087 0 0 93522
15 records on 1 pages.
Shutdown...
Request system dump...
Switch auxiliary tracing data set...
Reset the internal CICS clock...
Rebuild security profiles...
Delete shipped terminal definitions...
Request statistics processing...
Resource name: CICSRGN. View name: EYUSTARTCICSRGN.TABULAR
Internet


CICSPlex SM Web User Interface - IYEMSW1W - PJ - Microsoft Internet Explorer
CICSPlex SM Web User Interface
Home
Repeat last menu
General views
CICS regions
Active tasks
ISC and MRO connections
Terminals
Local files
Remote files
Local or dynamic transactions
Remote transactions
Real Time Analysis (RTA) outstanding events
View menus
CICS operations views
Monitoring views
Real Time Analysis (RTA) views
Active workload views
CICSPlex SM operations views
Administration views
Special
Refresh
View editor
User editor
New window
Close window
Sign off
CICS region
EYUVC1280I 15 records collected at 2004/10/06 15:32:37.
Refresh
CICS system name IYEMST01
CICS Release 0640
Job name IYEMST01
VTAM application ID IYEMST01
MVS system ID MV51
CICS system ID MT01
Activity keypoint (AKP) frequency 4000
Number of MRO requests to be batched 1
Priority aging value 500
Runaway time interval 5000
Terminal scan delay time 100
Exit wait time 1000
Number of load requests 1
Total loading time 0:00:00.0314
Number of waiting loader requests 0
Number of tasks waiting for load requests 0
Peak number of tasks waiting for load requests 0
Number of times maximum suspended tasks reached 0
Total load waiting time 0:00:00.0000
Default remote system Not applicable
MVS system name MV51
Done
Internet

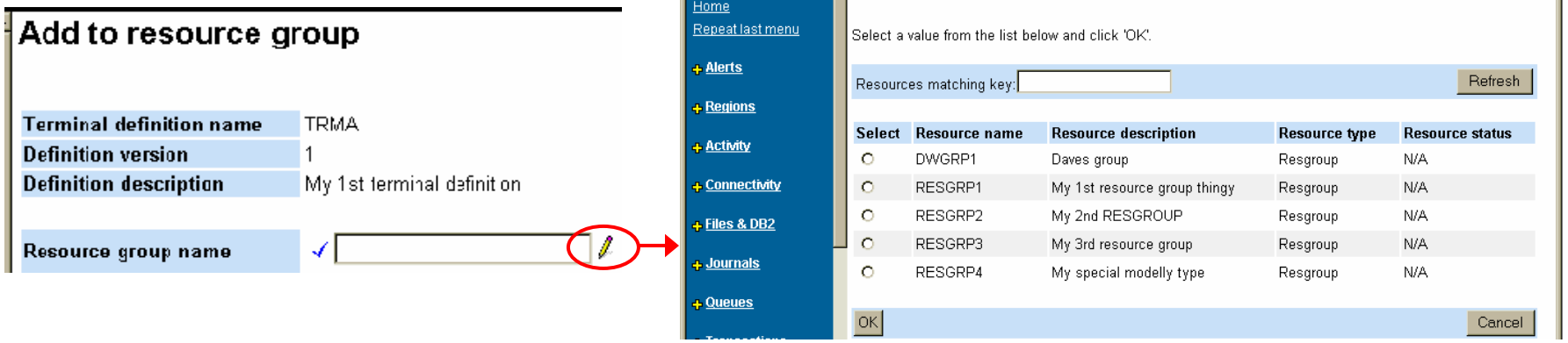

CICSPlex SM Web User Interface - IYEMSW1W - PJ - Microsoft Internet Explorer
CICSPlex SM Web User Interface
Home
Repeat last menu
General views
CICS regions
Active tasks
ISC and MRO connections
Terminals
Local files
Remote files
Local or dynamic transactions
Remote transactions
Real Time Analysis (RTA) outstanding events
View menus
CICS operations views
Monitoring views
Real Time Analysis (RTA) views
Active workload views
CICSPlex SM operations views
Administration views
Special
Refresh
View editor
User editor
New window
Close window
Sign off
Separate conversational task performance records
NOCONVERSE
Shutdown transaction
CESD
Web domain garbage collection interval
0
Web domain terminal timeout interval
0
Debugging profiles status
NODEBUG
Good morning message
CICS/TS 3.10 LMAS on WIN
Good morning transaction ID
CSGM
Monitoring, dump and trace details
Task details
Autoinstall details
Active tasks
Global temporary storage attributes
Global transient data queue attributes
Dynamic storage areas
Transaction classes
Global user exits
Task related user exits
Apply changes
Shutdown...
Request system dump...
Switch auxiliary tracing data set...
Reset the internal CICS clock...
Rebuild security profiles...
Delete shipped terminal definitions...
Request statistics processing...
Resource name: CICSRGN. View name: EYUSTARTCICSRGN.DETAILED
Done
Internet


CICSPlex SM Web User Interface - DEWCB8W0 - PJ - Netscape
CICSPlex SM Web User Interface
Open
Home
Repeat last menu
Alerts
Regions
CICS regions
CICS dispatcher
CICS storage
Loader activity
Enqueue pools
Global user exits
Task related user exits
Activity
Connectivity
Files & DB2
Logging
Queues
Transactions
Programs
Enterprise Java
Models
Miscellaneous
Special
View editor
New window
Sign off
Dynamic Storage Areas (DSA)
CICS system name
DEWCB8A0
Short on storage status
Notsos
Current DSA limit
6291456
Total storage currently allocated to DSAs
1048576
Peak amount of storage allocated to DSAs
1048576
Extended Dynamic Storage Areas (EDSA)
Dynamic Storage Areas
CDSA
UDSA
SDSA
RDSA
DSA Size
524288
0
262144
262144
Peak DSA Size
524288
0
262144
262144
Current Free Storage
131072
0
253952
69632
Times Short-on-Storage
0
0
0
0
Times no storage returned
0
0
0
0
Current Subpools (domain and task)
39
19
7
4
Getmain Request
3245
0
12
0
Freemain Request
3245
0
6
0
Apply changes
Resource name: CICSSTOR. View name: IBM_CMZCICSSTOR.DETAIL1
Document: Done


CICSPlex SM Web User Interface - IYK3ZDB3 - DBUSBY - Microsoft Internet Explorer
CICSPlex SM Web User Interface
Open
Home
Repeat last menu
Alerts
Regions
Activity
Connectivity
Files & DB2
Journals
Queues
Transactions
Programs
Enterprise Java
Administration
Favorites
Special
Favorites editor
View editor
User editor
New window
Terminal
EYUVC1280I 2 records collected at 08/20/04 11:10:28
CMAS context: IYK3ZDB1
Context: DWBPLEX1
Scope: DWBPLEX1
Refresh
CICS system name IYK3ZDB3
Access method Vtam
Altemate page height 0
Altemate printer
Altemate screen height 0
Altemate-map-set suffix '00'X
APL text feature Noapltext
Automatic transaction initiation (ATI) status Ati
Session binding status Notapplic
Extended color feature Color
Copy feature in control unit Nocopy
Session creation status Notapplic
Default page height 24
Default screen height 24
Device type T3277r
Disconnect Requests status Discreq
Exit tracing status Notapplic
Function management header (FMH) option Nofmhparm
Terminal ID CBRF
Acquire status Notapplic
Alternate page width 0
Hardware COPY feature for alternate printer Notapplic
Alternate screen width 0
APL keyboard feature Noaplkybd
ASCII data stream type Notapplic
Audible alarm feature Audalarm
Background transparency feature Backtrans
Console ID
Correlation ID
Device data stream type Ds3270
Default page width 80
Default screen width 80
Device busy status Not applicable
Dual-case keyboard status Nodualcase
Extended data stream support Extendedds
Forms feed feature Noformfeed
Applet EyuWuiWatchdog started
Internet

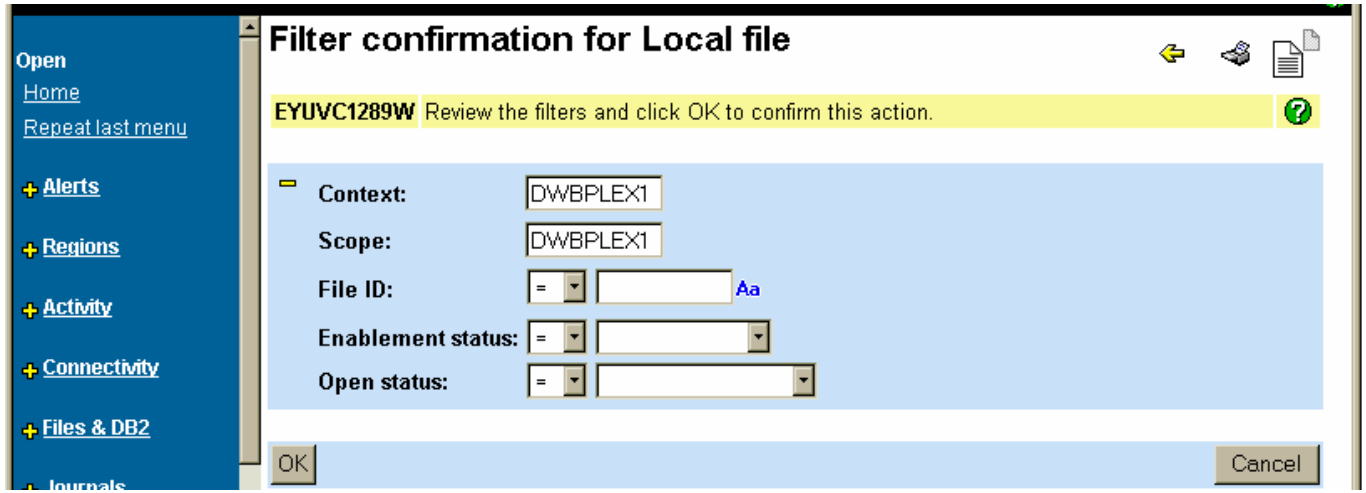
Dynamic selection lists

- WUI enabled to generate dynamic selection lists
  - Fields that are capable for dynamic selection lists are marked with an icon
    - clicking the icon will open a selection list screen
    - filters applicable to the list



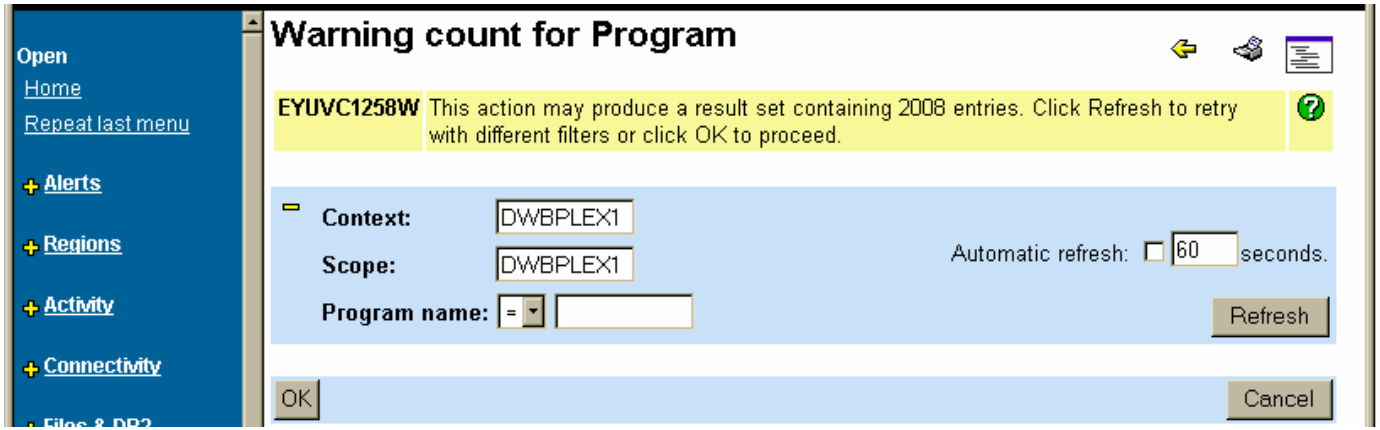
Filter confirmation

- WUI view editor allows filter confirmation
  - specify a filter confirmation screen to be displayed before data retrieval



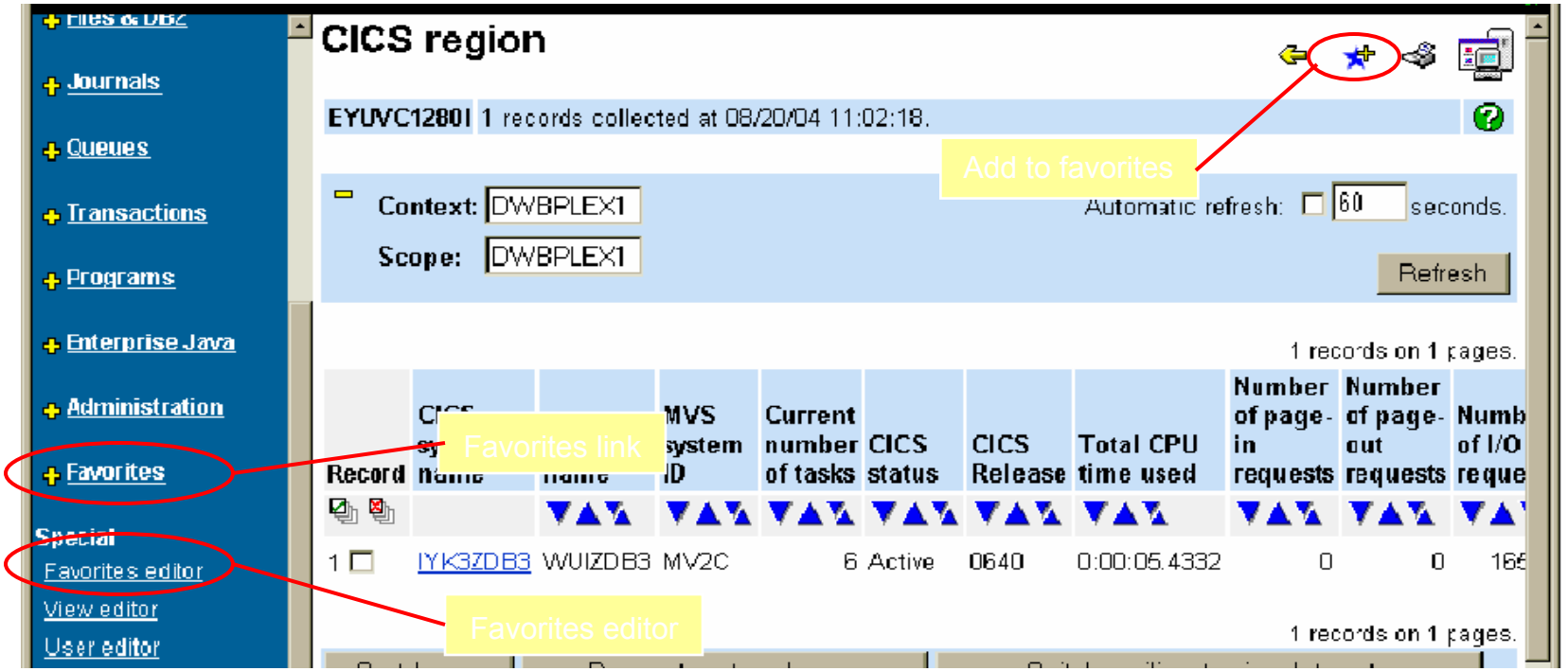
Result set warning count

- Issue a warning if the request returns more data than expected
  - provide the opportunity to alter filters or cancel the request before execution
  - Maximum size of a result set specified in …
    - user group profile, if WUI is running with security
      - set by an administrator
    - DEFAULTWARNCNT parameter in WUIPARM
      - default is 0, meaning no warning issued
- Warning count screen



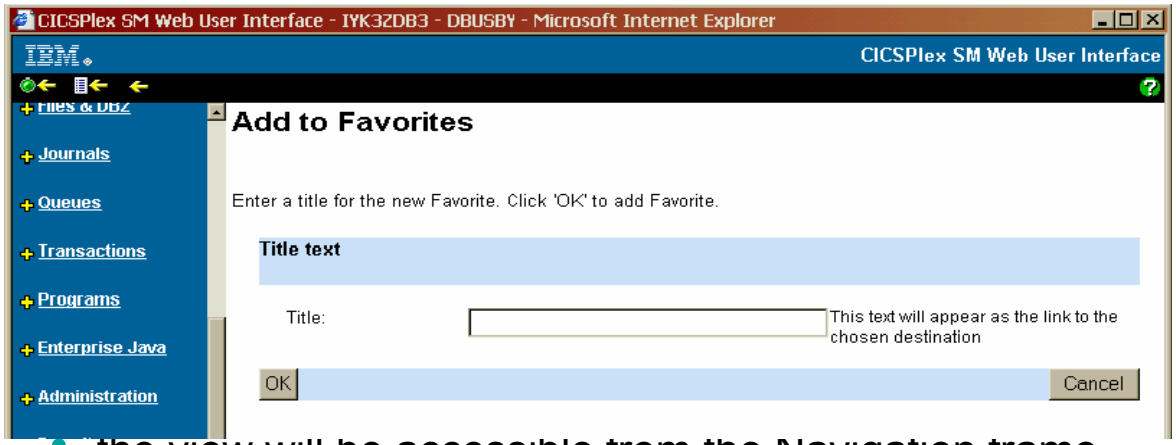
Favorites support

- Faster access to frequently used views
  - New “Favorites” in Navigation frame
  - “Add to favorites” icon on tabular and detail views
    - Added to new “USER” object in WUI repository
  - Favorites editor to create/update/delete/rename favorites

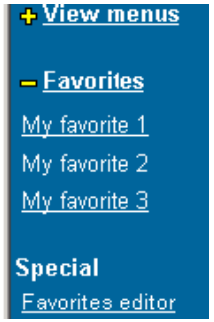


Adding a favorite

- Click icon on view
  - Displays a screen to add a title

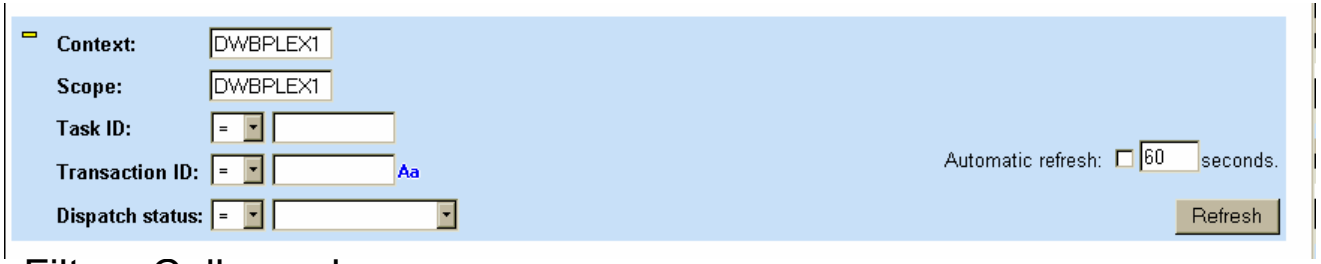


  - the view will be accessible from the Navigation frame

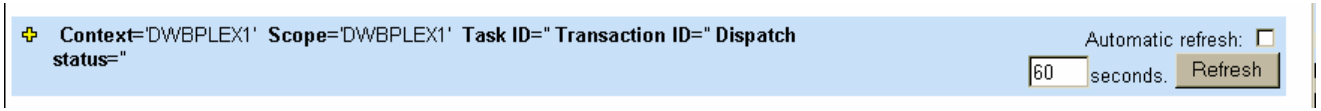


Expand / collapse filters

- Can collapse filters when not in use
  - To display more data in tabular views
  - Filters expanded



  - Filters Collapsed



  - New FILTERSTYLE parameter in WUIPARM
    - FILTERSTYLE (EXPAND | COLLAPSE)
    - specifies how the filters should be displayed by default

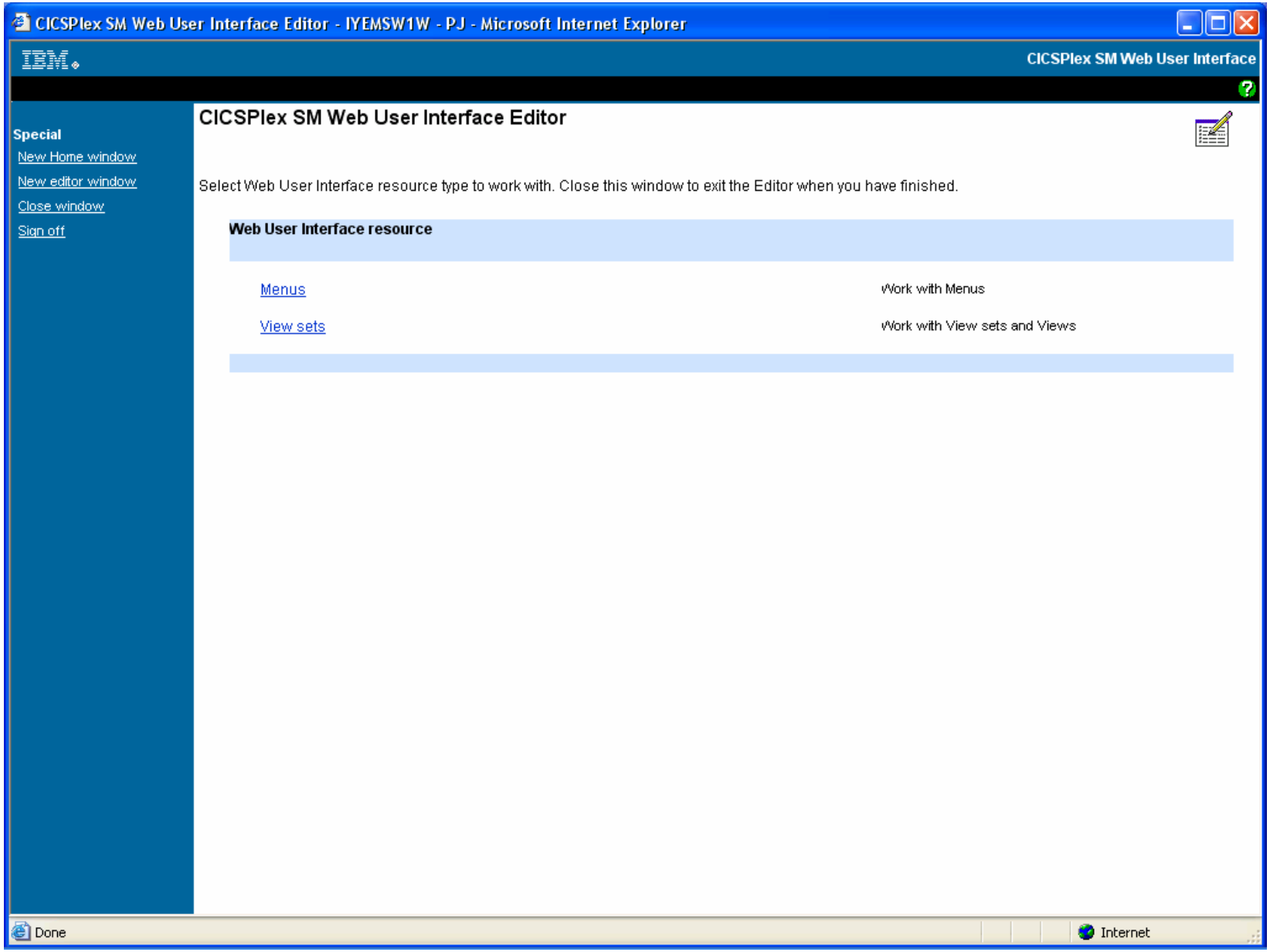
Architected urls

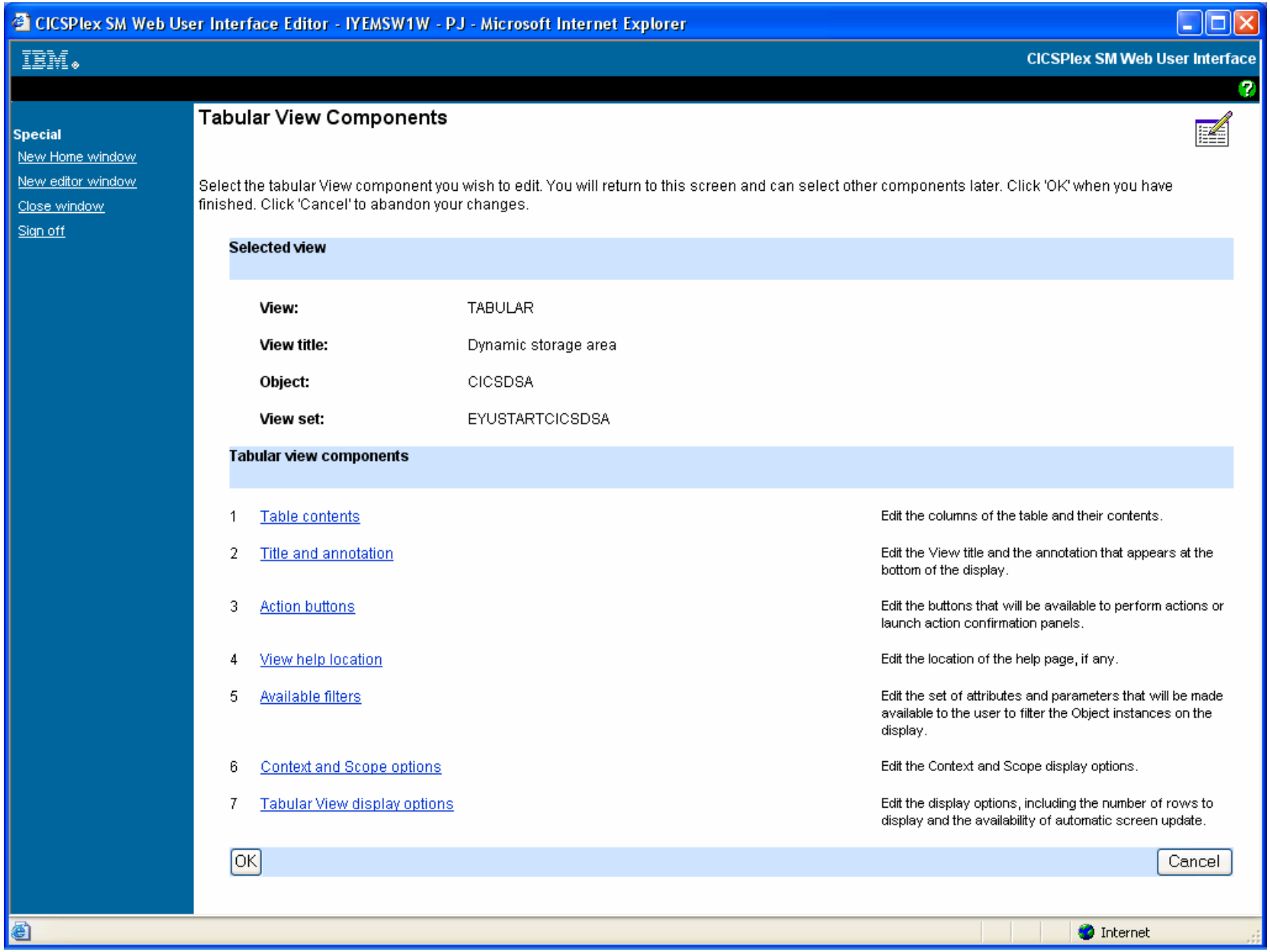
- Prefix:path?selectioncriteria
- Prefix is http or https
- Path is
  - Hostname:port/CICSPlexSM/codepage/userid
  - Hostname:port/CICSPlexSM/codepage/userid/MENU/menuname
  - Hostname:port/CICSPlexSM/codepage/userid/VIEW/viewset.view
  - Hostname:port/CICSPlexSM/codepage/userid/DATA
- Selectioncriteria
  - Standard url query string format to qualify request
    - e.g. &Context=testplex&scope=aorset

WUI Editor

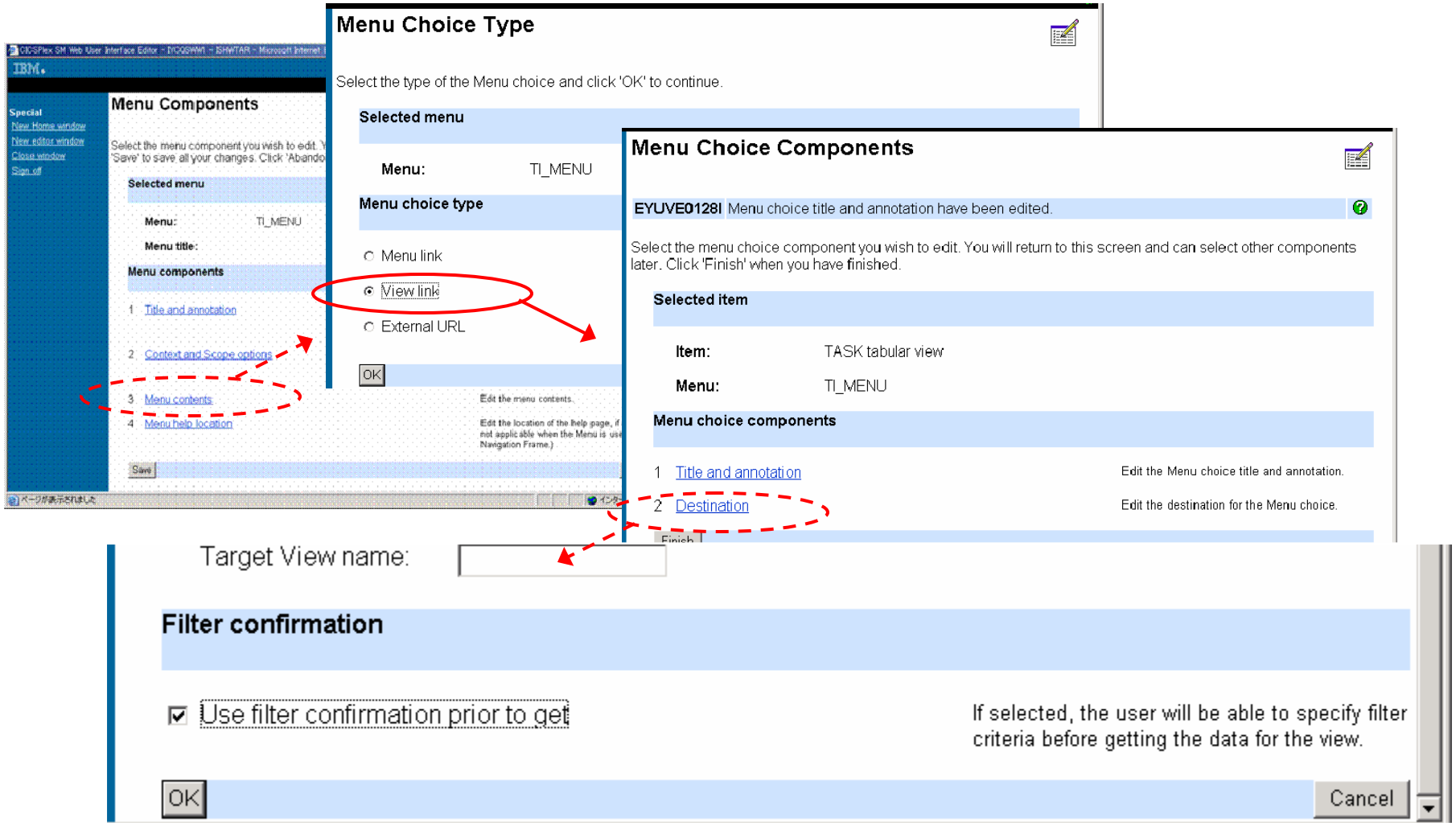
Why create your own views?

- Supplied views
  - object based
  - Resource references and navigable
- Customised views
  - Task based
  - Specific to your system e.g. online stock trading company
    - Pre market open checks menu and views
    - Post market checks menu and view
    - Problem determination menus and views
    - Help desk views
    - System cut over menus and views
  - All in ***your*** terminology with the data which is important to ***you***
  - Can be integrated into your online web documentation


CICSPlex SM Web User Interface Editor - IYEMSW1W - PJ - Microsoft Internet Explorer
IBM
CICSPlex SM Web User Interface
Special
New Home window
New editor window
Close window
Sign off
CICSPlex SM Web User Interface Editor
Select Web User Interface resource type to work with. Close this window to exit the Editor when you have finished.
Web User Interface resource
Menus
Work with Menus
View sets
Work with View sets and Views
Done
Internet


CICSPlex SM Web User Interface Editor - IYEMSW1W - PJ - Microsoft Internet Explorer
IBM
CICSPlex SM Web User Interface
Special
New Home window
New editor window
Close window
Sign off
Tabular View Components
Select the tabular View component you wish to edit. You will return to this screen and can select other components later. Click 'OK' when you have finished. Click 'Cancel' to abandon your changes.
Selected view
View: TABULAR
View title: Dynamic storage area
Object: CICSDSA
View set: EYUSTARTCICSDSA
Tabular view components
1 Table contents
Edit the columns of the table and their contents.
2 Title and annotation
Edit the View title and the annotation that appears at the bottom of the display.
3 Action buttons
Edit the buttons that will be available to perform actions or launch action confirmation panels.
4 View help location
Edit the location of the help page, if any.
5 Available filters
Edit the set of attributes and parameters that will be made available to the user to filter the Object instances on the display.
6 Context and Scope options
Edit the Context and Scope display options.
7 Tabular View display options
Edit the display options, including the number of rows to display and the availability of automatic screen update.
OK
Cancel
Internet

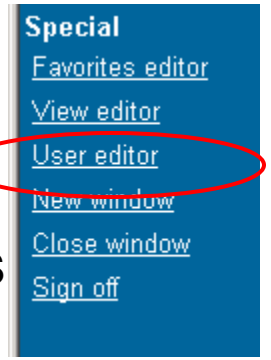
Setting filter confirmations in the WUI Editor



User profile editor

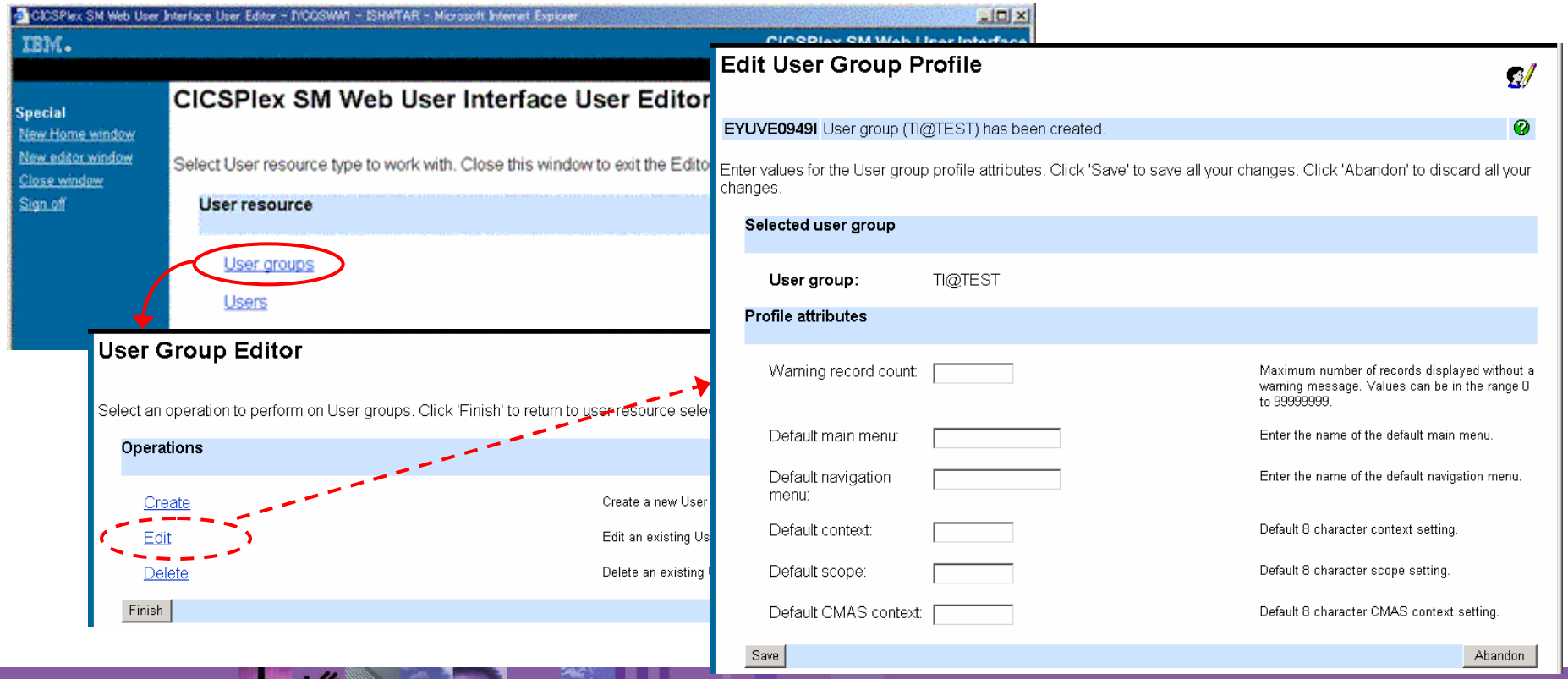
User group profiles

- Set profiles for groups of users
  - groups such as..
    - Operators, Sysprogs, Developers, etc.
  - user group profile contains information for
    - result set warning count
    - default main menu and navigation menu
    - default context and scope, CMAS context
  - if not retrieved from profile, defaults from WUIPARM is used
  - New “User Group” object to store profile information
  - Security needs to be activated in the WUI
- Setting up the user group
  - To create a user group…
    - Use the new User Editor to create the user group profile
    - Create a user group with the same name in the ESM
  - Associate a user to the user group
    - Set the user group as the user’s default user group in the ES



Managing user group profiles

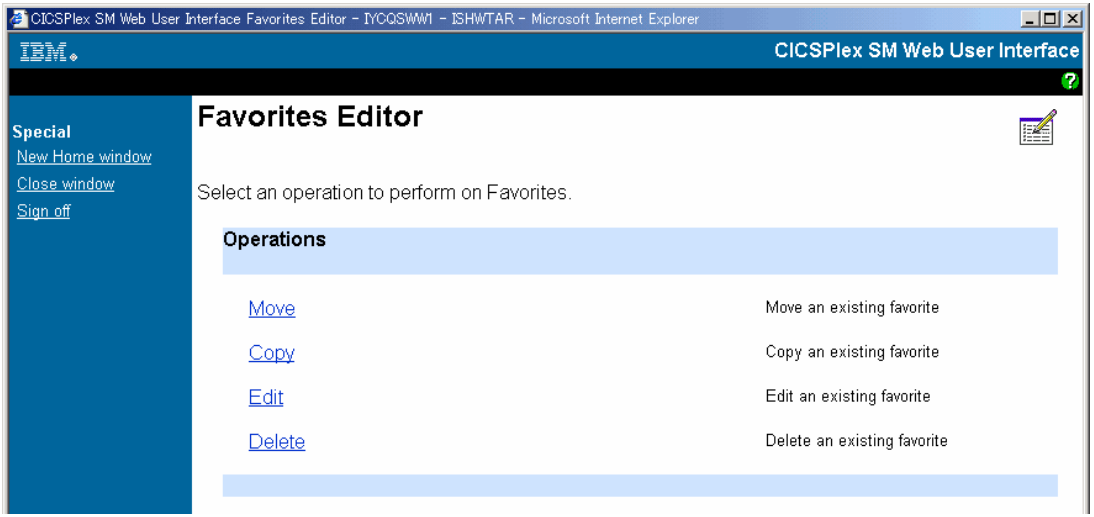
- User Editor (for administrators)
  - "User groups" screen
    - Can create, edit, delete a user group and its profile



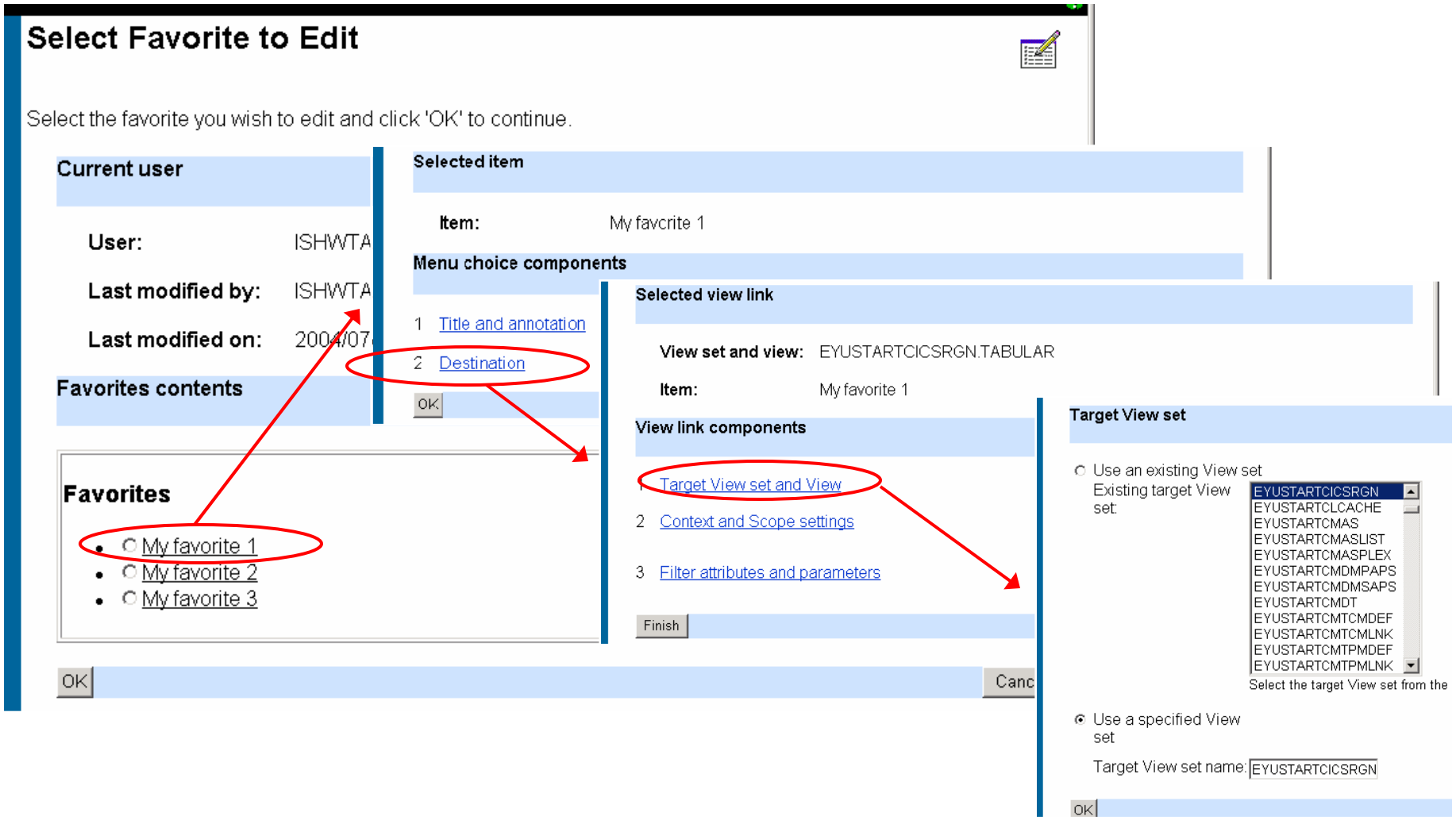
Favourites editor

Favorites editor

- To alter the list of Favorites
  - Move
    - change position of an item on the favorites list
  - Copy
    - copy an existing favorite to a different name
  - Edit
    - change the title, target view set and view, context and scope, filter settings
  - Delete
    - delete an item

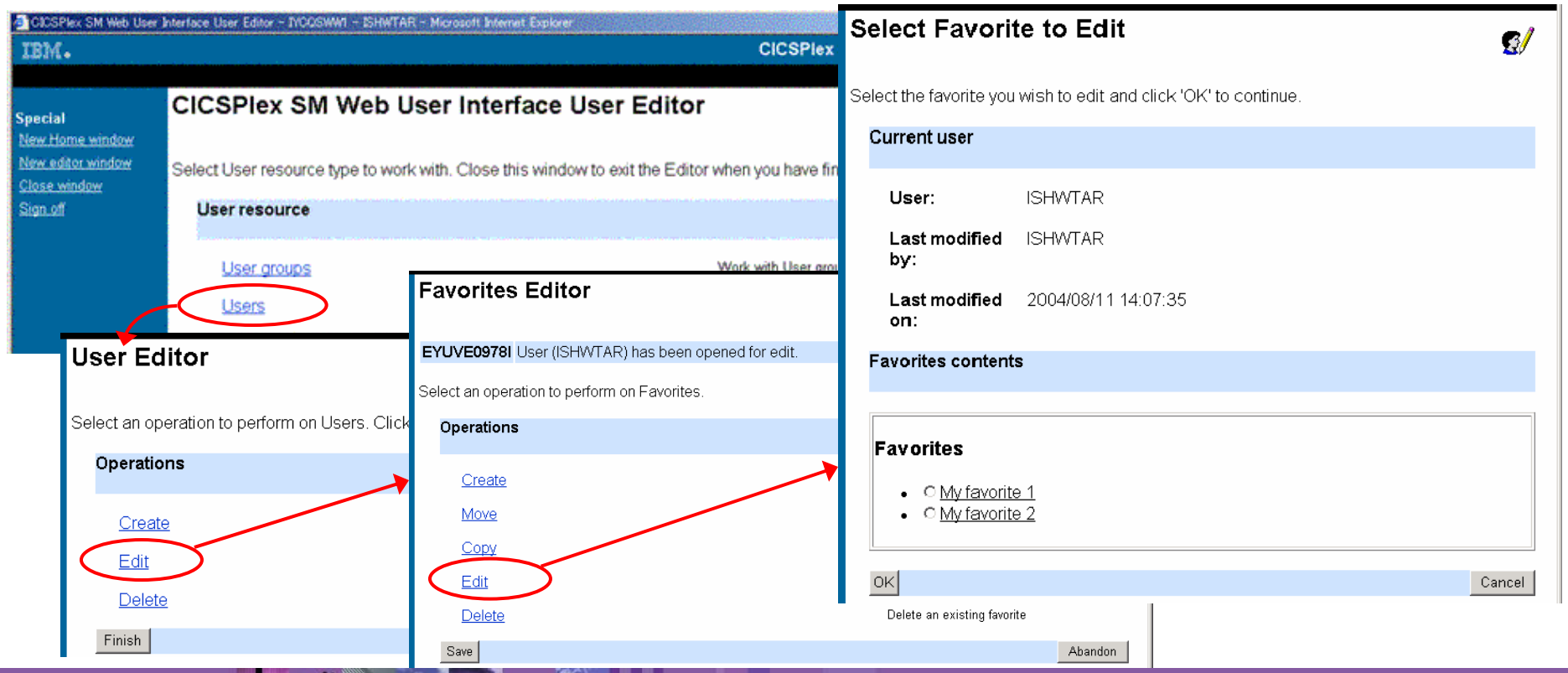


Favorites editor sample – editing a favorite



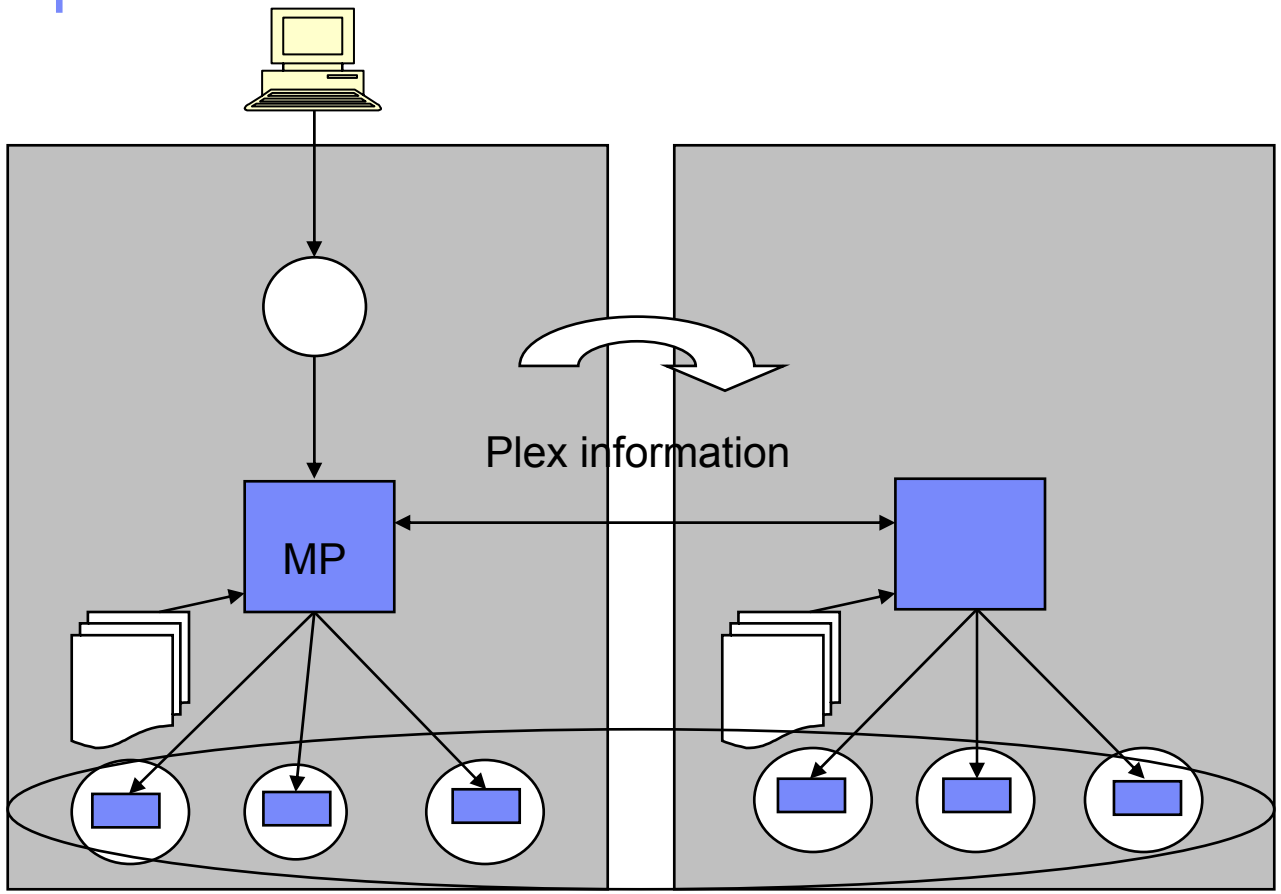
Managing favorites for other WUI users

- User Editor
  - "User" screen
    - Can create, edit, delete a user and its favorite list



CICSPlex SM setup

- Install and activate CMAS
- Configure MP CMAS
  - Define plex
  - Regions in CICSplex
  - WUI Server region
  - Link to other CMAS
  - Other CMAS involved
- Configure other CMAS
  - Link to other CMAS
- Install agent code
- Install and activate WUI Server
  - Autoimport of WUI views



Summary

- Fully functional Single System Image System Management tool
- Provided as part of CICS Transaction Server
- Providing
  - Resource definition
  - Operations
  - Thresholding
  - Automation
  - Dynamic workload management
  - Modern Browser interface
  - Scripting APIs
  - Integration with IBM System Management tooling