CICS Transaction Server for z/OS

CICSPlex SM Managing Business Applications

Version 3 Release 2

SC34-6847-03

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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 141.

This edition applies to Version 3 Release 2 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.

Contents

Preface

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

Who this book is for

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

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.

CICSPlex System Manager Web User Interface Guide
For information about using the Web User Interface to CICSPlex SM

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

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 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 3.2	CICSPlex SM component of CICS TS 3.1	CICSPlex SM component of CICS TS 2.3	CICSPlex SM component of CICS TS 2.2
CICS TS 3.1	Yes	Yes	No	No
CICS TS 2.3	Yes	Yes	Yes	No
CICS TS 2.2	Yes	Yes	Yes	Yes

Table 1. Directly-connectable CICS systems by CICSPlex SM release (continued)

CICS system	CICSPlex SM component of CICS TS 3.2	CICSPlex SM component of CICS TS 3.1	CICSPlex SM component of CICS TS 2.3	CICSPlex SM component of CICS TS 2.2
TXSeries 4.3.0.4	No	No	Yes	Yes
TXSeries 5.0	No	No	Yes	Yes

Notes on terminology

In the text of this book, the term **CICSPlex SM** (spelled with an uppercase letter *P*) means the IBM® CICSPlex SM element of CICS Transaction Server for z/OS, Version 3 Release 2. 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 2

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

Syntax notation and conventions used in this book

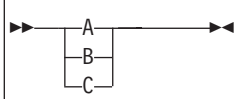
The syntax descriptions of the CICSPlex SM commands use the following symbols:

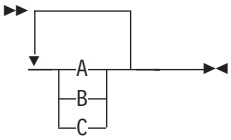
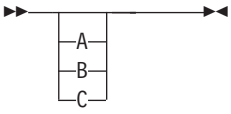
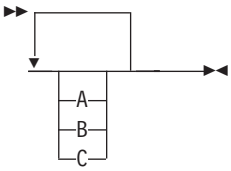
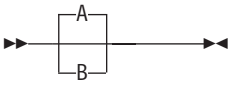
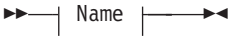
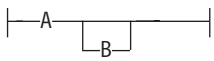
- Braces { } enclose two or more alternatives from which one must be chosen.
- Square brackets [ ] enclose one or more optional alternatives.
- The OR symbol | separates alternatives.

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 ***must*** code.

Symbol	Action
	A set of alternatives—one of which you ***must*** code. You ***may*** code more than one of them, in any sequence.
	A set of alternatives—one of which you ***may*** code.
	A set of alternatives — any number (including none) of which you may code once, in any sequence.
	Alternatives where **A** is the default.
 **Name:** 	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 2

For information about changes that have been made in CICS Transaction Server for z/OS, Version 3 Release 2, please refer to *What's New* in the information center, or the following publications:

- *CICS Transaction Server for z/OS Release Guide*
- *CICS Transaction Server for z/OS Migration from CICS TS Version 3.1*
- *CICS Transaction Server for z/OS Migration from CICS TS Version 2.3*
- *CICS Transaction Server for z/OS Migration from CICS TS Version 2.2*
- *CICS Transaction Server for z/OS Migration from CICS TS Version 1.3*

Changes for CICS Transaction Server Version 3 Release 1

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

- PIPELINE, see “Pipeline resource definitions” on page 96
- URIMAP, see “URI mapping resource definitions” on page 108
- WEBSERVICE, see “Web service resource definitions” on page 108.

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.
- TCPDEF has a new attribute ATTACHSEC, see TCP/IP service definition attributes.
- TYPTMDEF has a new attribute RSTSIGNOFF, see Typeterm definition attributes.

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 (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 “CorbaServer definitions” on page 78.
- EJDJDEF, to define CICS-deployed JAR files; see “CICS-deployed JAR file definitions” on page 77.

Changed resource types are:

- RQMDEF; see “Request model resource definitions” on page 99.
- PROGDEF; see“Program resource definitions” on page 98
- TCPDEF; see “TCP/IP service resource definitions” on page 101.
- TRANDEF; see “Transaction resource definitions” on page 103.

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
- IPIC connections
- LIBRARY resources
- Map sets

- Partition sets
- Pipeline
- Programs
- Sysplex enqueue models
- TCP/IP services
- Temporary storage models
- Transactions
- Transient data queues
- URI maps
- Web services

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)
- The batched repository-update facility

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.

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 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 14, “Extracting records from the CSD,” on page 57.

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 Web User Interface, they are represented by views.

There are two types of Business Application Services objects:

- Resource definition objects
- Administration objects

Resource definition views and objects

You use resource definition views to define instances of CICS resources (objects) as they exist in your CICSplex. The attributes of each resource definition (xxxxDEF object) are identical to those of the equivalent CICS CEDA definition. For example, to define a CICS connection (CONNDEF object), you use the **Connection definitions** view.

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.

RESDESC

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 WUI views used to create these administration objects and associations. The titles of the views are followed by the object names in parentheses. Figure 1 on page 7 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.

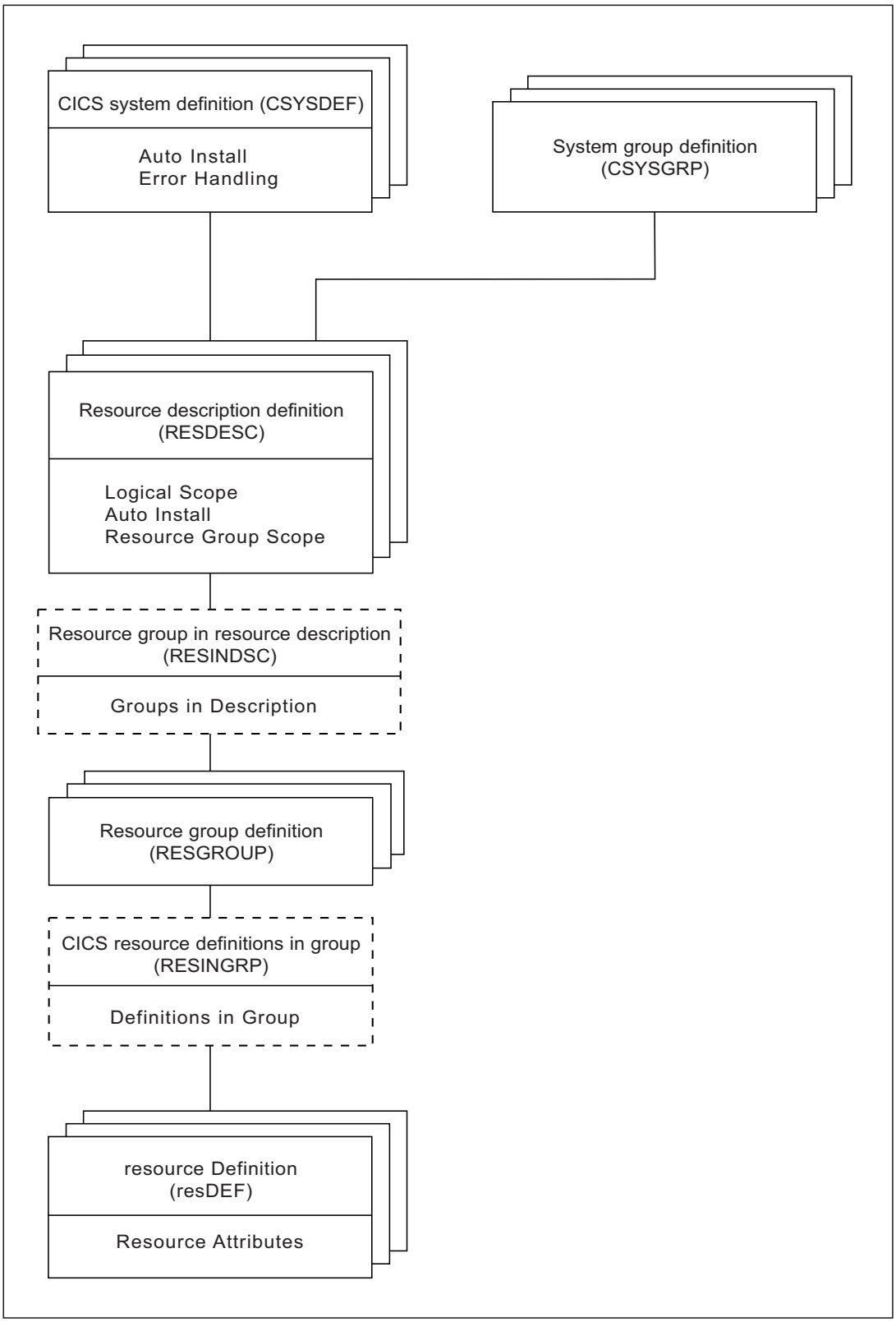


Figure 1. Views for managing CICS resources - a simple approach

Figure 2 on page 8 illustrates a more selective approach with the resource assignment playing a key role in the selection and assignment of resources.

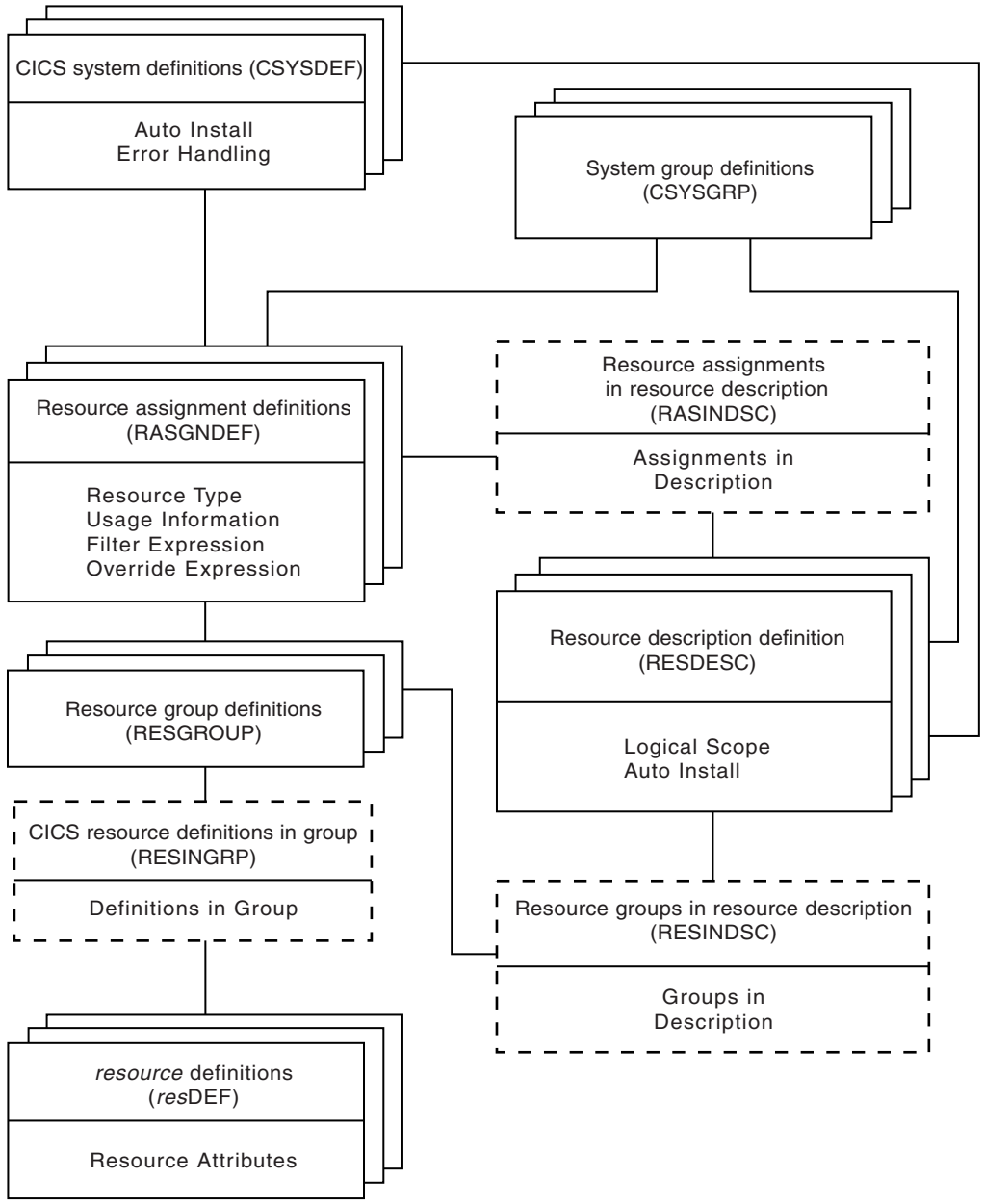


Figure 2. Views for managing CICS resources - a selective approach

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.

Connectivity objects

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

CSYSDEF

Describes the operational characteristics of a CICS system, including resource installation options and the system ID to be used in identifying system links. You use the **CICS system definition view** to create system links to other CICS systems (CSYSDEF objects). See *CICSPlex System Manager Administration*.

SYSLINK

Describes the links that exist between CICS systems in your CICSplex. You use the **CICS system link definitions** view to create and install CICS system links (SYSLINK objects).

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	EYUSTARTMAPBAS(The actual name on the view will depend on what is being mapped.)
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.

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 **Connection definitions** views (CONNDEF objects) and **Session definitions** views (SESSDEF objects).

  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. Using the Web User Interface

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 WUI views. 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.

BAS administration views

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**. 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. See Figure 1 on page 7 in the *Administration objects* topic for further information.

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 Figure 2 on page 8 in the *Administration objects* topic, and “Controlling resources by resource assignment” on page 32 for more information about resource assignments.

For detailed descriptions of all the BAS views see Basic CICS resource administration views and Fully functional Business Application Services (BAS) administration views, in the *CICSPlex System Manager Administration*

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.

  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 > 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 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.

Map To generate a visual representation of related definitions in 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 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.

Accessing resource definition views

To access resource definition views:

- You can follow two paths from the WUI main menu:
  - Click **Administration views>Basic CICS resource administration views>Resource definitions** to open the **CICS resource definitions** menu.
  - Click **Administration views>Fully functional Business Application Services (BAS) administration views>Resource definitions** to open the **CICS resource definitions** menu.
- Select the required resource from those listed to display a tabular view of existing resources. For example, in order to work with a CorbaServer definition, click **CorbaServer definitions** from the list to display a**CorbaServer definition** tabular view.

See “BAS administration views” on page 15 for more information.

Creating CICS resource definitions

To create a new resource definition:

- From the tabular view for the selected resource, click the **Create...** button to display the create view for the resource. You can select an existing resource definition to use as a template before clicking the **Create...** button.
- When you have complete the definition, click **Yes** to create the definition and redisplay the resource tabular view.

Updating resource definition views

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. This view is used for both the update and create actions.
- Make the necessary updates to the displayed fields and use the **Yes** and **No** buttons to confirm or abandon the operation.

Removing CICS resources

To remove one or more resource definitions, 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 for each selected record.

Mapping CICS resources

To generate a map of related definitions, click **Map**.

Installing CICS resources

To install resource definition views, click on the Install... button.

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:

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.

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.

Description

An optional string of up to 58 characters that describes the resource definition.

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; alternatively, click the **Add to resource group** button on a resource definition view to add a single definition to a group.

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.

Note:

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 *Resource Definition Guide*.

Chapter 7. 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.

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 clicking the **Create** button in the **Resource groups definition** 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 objects) 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 (different version number) for use by the new group.

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** 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

Using 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.

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 30.

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.

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.

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.

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

Chapter 8. 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” on page 31
- By resource assignments in conjunction with resource descriptions; see “Controlling resources by resource assignment” on page 32

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.

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.

Note:

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 view of the **Resource assignments** 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.

However, some resources are not available in all of the supported CICS releases. The online help for views and action commands 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.

Defining 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

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. Those connection and session definitions can be used by any number of system links that share the same characteristics.

Figure 3 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.

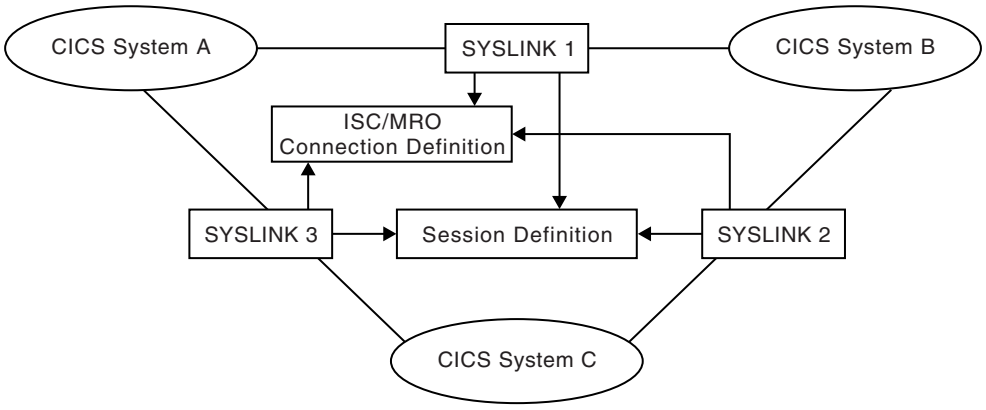


Figure 3. An example of defining communication links

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

1. Define the CICS systems to CICSPlex SM.

   Use the **CICS system definitions** view (CSYSDEF object) 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) attribute value you specify to identify the system link.

2. Define the connections and sessions.

   Use the **ISC/MRO connection definitions** view (CONNDEF object) to create connection definitions for each type of system link you want to create (such as APPC or EXCI). Similarly, use the **Session definitions** view (SESSDEF object) 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 session definition receive and send prefixes to (< and >). If you define your own receive and send prefixes, you must create a session definition for each CICS system link definition (SYSLINK object) 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 a system link:

   - From the main menu, click **Administration views**.
   - From the **Administration views** menu, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views**.
   - Click **System link definitions** to display the **CICS system link definitions** view (SYSLINK object).
   - Click the **Create...** button. To base the new definition on an existing one, click the Record check box beside the entry before clicking the **Create...** button.
   - Complete the fields and click **Yes** to create the system link. Otherwise, click **No** to abandon the process.

Figure 4 on page 29 provides an overview of the WUI views used to define links between CICS systems.

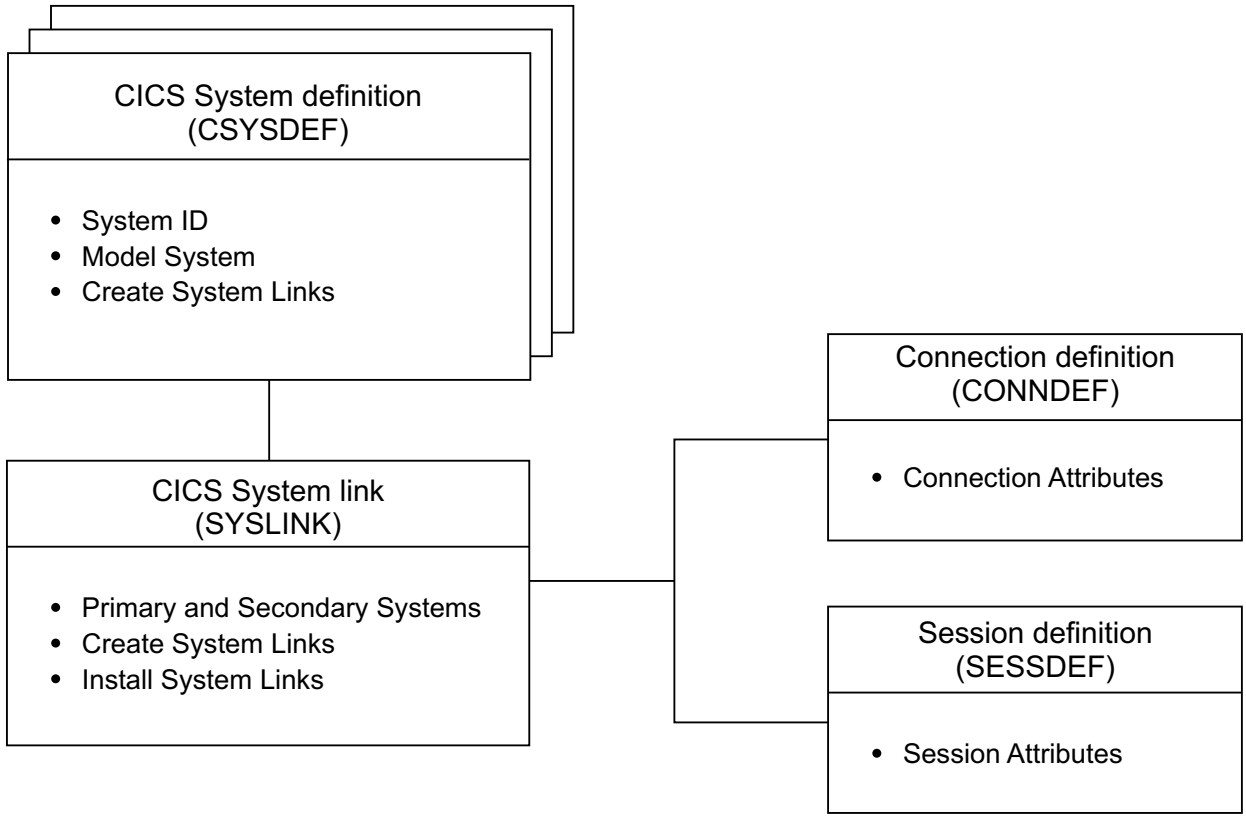


Figure 4. Views for defining links between CICS systems

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 the following:

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.

Note:

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 can be dependent upon each other, and other attributes can be mutually exclusive. 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. Check the resource definition syntax diagram for information on attribute interdependency.

Release-specific resource attributes

Because a resource can 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, so that, when you install a definition in a CICS system, CICSPlex SM discards any attributes that are obsolete for that CICS release and retains the attributes that are appropriate.

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 for different releases of CICS, CICSPlex SM might not be able to catch all potential attribute conflicts. So even if CICSPlex SM does not detect a problem, a particular release of CICS might fail a given resource installation request. For information about resource installation problems, see “Handling dynamic installation errors” on page 56.

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

Note:

1. A DB2 entry definition (DB2EDEF object) that has a transaction id specified can create both a DB2 entry (DB2NTRY object) and a DB2 transaction (DB2TRN) operational object when the DB2 entry definition (DB2EDEF object) is installed (see “DB2 entry resource definitions” on page 80

page 80). Therefore, you may get inconsistent set errors because two or more DB2 entry definitions (DB2EDEF objects) have the same transaction id specified, or clash with an explicitly defined DB2 transaction definition (DB2TDEF object) that has the same name as that generated from a DB2 entry definition (DB2EDEF object), which would cause a conflict.

2. You can change the value of selected BAS objects using the **Override string** field in the **Resource assignments** view (RASGNDEF object), as described on page Chapter 17, “Resource assignment definitions,” on page 111. If you use this method to change the Transid field of a DB2 entry definition (DB2EDEF object) and there is a resulting clash of names of DB2 transctions (DB2TRAN objects), CICSPlex SM does not detect this fact as part of inconsistent set processing.

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, messages to this effect are displayed at the top of the associated tabular view. Click on the message numbers to display the full text of the messages and help in solving the problem.

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** 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 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 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 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 WUI view 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.

Chapter 9. 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 10. Installation of CICS resources

This section 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 can replace any identical resources that may exist in the system.

Note:

1. If you are using BAS to install resources automatically 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 DB2 connection definition (DB2CDEF object). For details, see the *CICS Transaction Server for z/OS Installation Guide*.
3. It is not possible to use BAS to install a WebSphere® MQ connection before the CICSPlex SM environment has been initialized.
4. It is not possible to install journal definitions (JRNLDEF objects).
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 global enqueue model definitions” on page 88.
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 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:

1. From the WUI main menu, click **Administration views > Basic CICS resource administration views > Resource groups** to open the **Resource group definitions** 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** button to display the **Install** view. 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.

   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 objects)
   - Journal defintions (JRNLDEF objects).
   - Session definitions (SESSDEF objects).

   Referenced assignment name

   When the **Resource type** field contains CONNDEF (for connections), identify the resource assignment that applies to the related session definitions (SESSDEF objects). 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 (TRANDEF objects) 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:

- File definitions (FILEDEF objects)
- Program definitions (PROGDEF objects)
- Transient data queue definitions (TDQDEF objects)
- Transaction definitions (TRANDEF objects)

Note:

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 106. For a description of the TSMDEF Remote system attribute, see Temporary storage model definitions - TSMDEF.

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.

Overtype 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.

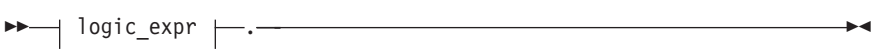
If you specify YES in this field, CICSPlex SM bypasses this duplicate resource checking and installs the new resource unconditionally.

Filter string

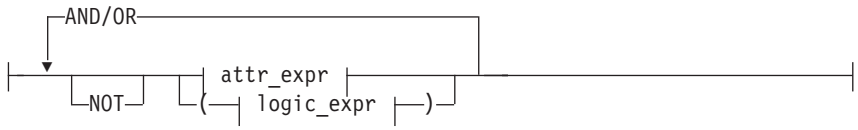
(Optional.) Identifies attributes that are to be used in selecting the resources to be installed. CICSPlex SM processes only those resources that meet the specified filter criteria.

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

Filter expression



logic_expr:



attr_expr:

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.

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 **Overtype 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:

- 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**[1] 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.

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

3. 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.

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

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 specifying the ALWAYS attribute in the **Install BAS resources option** field of the CICS system 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.

To install a system link:

1. From the WUI main menu, click **Administration views > Basic CICS resource administration views > CICS system links** to open the **System link definition** tabular view.

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

   This view lists the system link definitions in the current context.
2. Select the check box next to the link to be installed and click the **Install** button.

   This opens an **Install** view.
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.

   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.

Chapter 11. 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 objects) take precedence. Any values that you explicitly define in a resource assignments 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 object) 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 object) 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 12. 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, using the **CICS system definition** view (CSYSDEF object) 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, using the **Resource description** view (RESDESC object) 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, using the **Resource group in resource description** view (RESINDSC object), the resources are installed in the CICS systems named in the **Resource group scope name** field of the description.
3. Optionally, associate the resource descriptions with resource assignments, using the **Resource assignment definition** view (RASGNDEF object) 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 resource description (RESDESC object), 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 resource description definition, which has 50 program definitions (PROGDEF objects) associated with it in migration mode, as shown in Figure 1 on page 7 in the *Administration objects* topic. When the target scope of the resource description is

assigned to a single MAS, the resource set table will be initialized with 50 entries - one entry for each program definition instance at the target MAS. If the resource description target scope is changed to a CICS system group comprising 20 MASs, 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 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 resource descriptions 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 **CICS system definition** view (CSYSDEF object):

  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 13. 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.

Note:

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 objects). They are installed when you install the associated connection definitions (CONNDEF objects).

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 object), including specifying an override expression to be applied for this installation.

Note: The **File key segment definitions** and **Session definitions** views (FSEGDEF and SESSDEF objects) 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

To install a resource definition dynamically:

1. Open a resource definition screen by clicking **Administration views > Basic CICS resource administration views > CICS resource definitions**, then selecting the type of resource to be installed.

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

2. Select one or more resources and click the **Install** button.
3. Provide the following information about the CICS systems where the resources are to be installed.

   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 (TRANDEF objects) 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:

   - File definitions (FILEDEF objects)
   - Program definitions (PROGDEF objects)
   - Transient data queue definitions (TDQDEF objects)
   - Transaction definitions (TRANDEF objects)

   Note:

   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 106. For a description of the temporary storage model definition Remote system attribute, see “Temporary storage model definitions” on page 105.

   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 objects)

   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 objects)
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 objects).

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 object). This mode may be specified only if the **Usage value** field contains REMOTE.

Transient data queues (TDQDEF definitions)
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 transient data queue.

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

Overtype 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.

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.

Handling dynamic installation errors

When you ask CICSPlex SM to install one or more resources dynamically by using the **Install** button from WUI view, an **Install** view is displayed. After you provide the required information and click **Yes**, 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, the tabular view for the resources is displayed with one or more error messages at the top. For example, if you tried to install an IPIC connection definition, you might see a set of messages like these:

```
EYUVC1231E  'Install' (INSTALL) request failed. Request complete for 1 records. (Tableerror, Dataerr
EYUVC1272I  Action (INSTALL) failed. Nothing installed (21).
EYUVC1273I  Action (INSTALL) failed for 'A0T0' (Ipcondef) version 1, in 'DEWCBBA0'. Install failure
EYUVC1279I  CICS information: EIBFN(303C - CREATE IPCONN) RESP(16 - INVREQ) RESP2(0, 631)
```

Click on the error message number to display the full text of the message which contains reasons why the install failed and suggestions for solving the problem.

Chapter 14. 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 CICSTS32.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 3 Release 2
- CICS Transaction Server for z/OS Version 3 Release 1
- 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 program resource definition (PROGDEF object). 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 objects). It uses the RESGROUP keyword of the a resource definition to maintain the relationship to the resource group. That means when a program resource definition (PROGDEF object) 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.
- 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, IPCONN, JOURNALMODEL, LIBRARY, LSRPOOL, MAPSET, PARTITIONSET, PARTNER, PIPELINE, PROCESSTYPE, PROFILE, PROGRAM, REQUESTMODEL, SESSIONS, TCPIPSERVICE, TDQUEUE, TERMINAL, TRANCLASS, TRANSACTION, TSMODEL, TYPETERM, URIMAP, WEBSERVICE

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.

Figure 5 on page 61 is an example of the JCL that you can use to run EYU9BCSD. This sample JCL is supplied in the member EYUJCLEX in the CICSTS32.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
//*-------------------------------------------------------------
//*
//* Extract the CSD Resource Definitions
//*
//*-------------------------------------------------------------
//CSDXTRCT EXEC PGM=DFHCSDUP,REGION=0M,
//              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.dfhcsd
//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(*)
 IPCONN(*)
 JOURNAL(*)
 JOURNALMODEL(*)
 LIBRARY(*)
 LSRPOOL(*)
 MAPSET(*)
 PARTITIONSET(*)
 PARTNER(*)
 PIPELINE(*)
 PROCESSTYPE(*)
 PROFILE(*)
 PROGRAM(*)
 REQUESTMODEL(*)
 SESSIONS(*)
 TCPIPSERVICE(*)
 TDQUEUE(*)
 TERMINAL(*)
 TRANCLASS(*)
 TRANSACTION(*)
 TSMODEL(*)
 TYPETERM(*)
 URIMAP(*)
 WEBSERVICE(*)
/*
//*-------------------------------------------------------------
//*
//* List EYUOUT to view errors
//*
//*-------------------------------------------------------------
//LISTOUT  EXEC PGM=IEBGENER
//SYSUT1    DD  DISP=OLD,DSN=cpsm.index.EYUOUT.group_name
```

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.dfhcsd* 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 date extracted from the CSD by the DFHCSDUP EXTRACT command to generate batched repository-update facility commands like those shown in Figure 6 on page 63.

```
/*
   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 6. 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 6 on page 63.

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 15. Example BAS tasks

This section 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 supplied 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** to open the **Connection definition** tabular view.

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

   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:
      Connection definition name
      C001
      Description
      ISC Connection
      Access method
      Vtam
      Protocol
      Appc
      Nature of connection
      Notapplic
      APPC terminal on single session APPC link
      No
      Data stream type
      User
      Record format
      U
      Queue limit
      No
      Maximum queue time
      No
      Autoconnect sessions for VTAM
      Yes
      Connection status
      Yes
      Level of attach-time security
      Local
      Bind time security
      No
      Use default user ID
      N_a
      Persistent session recovery
      Sysdefault
      Exchange lognames (XLN) action
      Keep

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
      Maximum number of contention winner sessions
      2
      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** to open the **Resource group definition** tabular view.

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

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:
Program definition name
EYUWLMVP
Definition version
0
Definition description
SSET — Workload IVP definition
Resource group name
EYUBAG01
Language
Assembler
Reload new copy
No
Residence status
No
Program storage release
Normal
Use program from the link pack area (LPA)
No
Enabled status
Enabled
Resource security value
0
Display execution diagnostic facility (EDF) screens
Yes
Data location
Below
Program execution key
User
Concurrency status
Quasirent

Dynamic routing status
No
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
IANSFILE
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 journaling for input
No
Rewrite/delete operations recorded on journal
No
Add operations recorded on journal
No
Synchronous auto journaling 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 view.

      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.

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

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 > Resource definitions > Program definitions** to open the **Program definitions** 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** button. The **Install** view is displayed.
   b. In the **Target Scope value** field, type in EYUMAS2A and click **Yes**. The program EYUWLMVP is installed in EYUMAS2A and the **Program definitions** 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 definitions** 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...** button.
   b. Complete the **Install** view as follows:
      Resource type
      PROGDEF
      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 definitions** 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...** button. The **Install** view 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 16. Creating resources with BAS administration and definition views

Creating resources with BAS administration and definition views is a three stage process.

1. Access the appropriate resource definition view.
2. Create the definition.
3. Install the definition.

After the resource is installed, you can use the CICSPlex SM WUI to inquire on the resulting object..

CICS-deployed JAR file definitions

CICS-deployed JAR file definitions describe the physical and operational characteristics of CICS-deployed JAR files.

Accessing CICS-deployed JAR file definitions

To display information about existing CICS-deployed JAR file definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **CICS-deployed JAR file definitions**.

Defining a CICS-deployed JAR file using BAS

To define a CICS-deployed JAR file:

- Access the **CICS-deployed JAR file definitions** view.
- From the **CICS-deployed JAR file definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **CICS-deployed JAR file definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **CICS-deployed JAR file definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS CICS-deployed JAR file definitions

To install a CICS-deployed JAR file definition in an active system:

- Go to the **CICS-deployed JAR file definitions** tabular view.
- Click the Record check box to select a JAR file definition and click on the **Install...** button. Alternatively, click on a CICS-deployed JAR file definition name and click on the **Install...** button on the **CICS-deployed JAR file definitions** detailed view.

After installation of a CICS-deployed JAR file resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Enterprise JAVA component operations views > CICS-deployed JAR files** to display the **CICS-deployed JAR files** tabular view. 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*.

CorbaServer definitions

Corbaserver definitions (EJCODEF objects) describe the physical and operational characteristics of CorbaServers.

Accessing CorbaServer definitions

To access from the main menu, click:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **CorbaServer definitions**.

Defining CorbaServers using BAS

To define a CorbaServer:

- Access the **CorbaServer definitions** view.
- From the **CorbaServer definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **CorbaServer definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **CorbaServer definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS CorbaServer definitions

To install a CorbaServer in an active system:

- Go to the **CorbaServer definitions** tabular view.
- Click the Record check box to select a CorbaServer definition and click on the **Install...** button. Alternatively, click on a CorbaServer definition name and click on the **Install...** button on the **CorbaServer definitions** detailed view.

After installation of a CorbaServer resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Enterprise Java component operations views > CorbaServers**. See *CICSPlex SM Operations Views Reference.*
- The EXEC CPSM GET OBJECT(EJCOSE) command; see *CICSPlex SM Application Programming Reference.*
- The CICS CEMT INQUIRE CORBASERVER command; see *CICS Supplied Transactions*.

- The EXEC CICS INQUIRE CORBASERVER command; see *CICS System Programming Reference*.

DB2 connection resource definitions

A DB2 connection definition (DB2CDEF object , 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:

- From the main menu, click **Administration views**.
- From the Administration views menu, click either **Basic CICS resource administration views** or **Fully functional Business Administration Services (BAS) administration views**.
- Click **Resource definitions** to display the **CICS resource definitions menu**.
- Click **DB2 connection definitions**.

Defining DB2 connections using BAS

To create a DB2 connection definition:

- Access the **DB2 connection definitions** view.
- From the **DB2 connection definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **DB2 connection definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **DB2 connection definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS DB2 connection definitions

To install a DB2 connection in an active system:

- Go to the **DB2 connection definitions** tabular view.
- Click the Record check box to select a DB2 connection definition and click on the **Install...** button. Alternatively, click on a DB2 connection definition name and click on the **Install...** button on the **DB2 connection definitions** detailed view.

After installation of a DB2 connection resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > DB2, DBCTL and WebSphere MQ operations views**. Under **DB2 operations views**, click **Connections** to display the **DB2 connections** tabular view. 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 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 DB2 entry definitions

To access from the main menu, click:

- From the main menu, click **Administration views. > > CICS resource definitions > CICS-deployed JAR file definitions**. or
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **DB2 entry definitions**.

Defining DB2 entries using BAS

To create a DB2 entry definition:

- Access the **DB2 entry definitions** view.
- From the **DB2 entry definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **DB2 entry definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **DB2 entry definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS DB2 entry definitions

T, install a DB2 entry in an active system:

- Go to the **DB2 entry definitions** tabular view.
- Click the Record check box to select a DB2 connection definition and click on the **Install...** button. Alternatively, click on a DB2 entry definition name and click on the **Install...** button on the **DB2 entry definitions** detailed view.

After installation of a DB2 entry resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > DB2, DBCTL and WebSphere MQ operations views**. Under **DB2 operations views**, click **Entries** to display the **DB2 entries** tabular view. 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 transaction resource definitions

A DB2 transaction definition (DB2TDEF object) identifies transactions that use the resources specified in a DB2 entry definition.

Accessing DB2 transaction definitions

To access from the main menu, click:

- From the main menu, click **Administration views. > > CICS resource definitions > CICS-deployed JAR file definitions**. or
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **DB2 transaction definitions**.

Defining DB2 transactions using BAS

To create a DB2 connection definition:

- Access the **DB2 transaction definitions** view.
- From the **DB2 transaction definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **DB2 transaction definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **DB2 transaction definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button. For details, see “Adding resource definitions to a resource group” on page 22.

Installing BAS DB2 transaction definitions

To install a DB2 transaction in an active system:

- Go to the **DB2 transaction definitions** tabular view.
- Click the Record check box to select a DB2 transaction definition and click on the **Install...** button. Alternatively, click on a DB2 connection definition name and click on the **Install...** button on the **DB2 transaction definitions** detailed view.

After installation of a DB2 transaction resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > DB2, DBCTL and WebSphere MQ operations views**. 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.

Document template resource definitions

Document template definitions define document templates for use in managed CICS systems.

Accessing document template definitions

To access from the main menu, click:

- From the main menu, click **Administration views**.

- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Document template definitions**.

Defining document templates using BAS

To create a document template definition:

- Access the **Document template definitions** view.
- From the **Document template definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Document template definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Document definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS document template definitions

To install a document template in an active system:

- Go to the **Document template definitions** tabular view.
- Click the Record check box to select a document template definition and click on the **Install...** button. Alternatively, click on a document template definition name and click on the **Install...** button on the **document template definitions** detailed view.

After installation of a document template resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Document template operations views > Document template** to display the **Dcocument template** tabular view. 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.

FEPI node list resource definitions

FEPI node list definitions describe the physical and operational characteristics of FEPI nodes.

Accessing FEPI node list definitions

To display information about existing FEPI node definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**

- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **FEPI node list definitions**.

Defining FEPI node lists using BAS

To create a FEPI node list definition:

- Access the **FEPI node list definitions** view.
- From the **FEPI node list definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **FEPI node list definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **FEPI node list definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS FEPI node list definitions

To install a FEPI node in an active system:

- Go to the **FEPI node list definitions** tabular view.
- Click the Record check box to select a FEPI node list definition and click on the **Install...** button. Alternatively, click on a FEPI node list definition name and click on the **Install...** button on the **FEPI node list definitions** detailed view.

After installation of a FEPI node list resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > FEPI operations views > Nodes** to display the **FEPI nodes** tabular view. See *CICSPlex System Manager Operations Views Reference*.
- There is no CICS CEMT INQUIRE command for FEPI node list definitions.
- There is no EXEC CICS INQUIRE command for FEPI node list definitions.

FEPI pool resource definitions

FEPI pool definitions describe the physical and operational characteristics of FEPI pools.

Accessing FEPI pool definitions

To display information about existing FEPI pool definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **FEPI pool definitions**.

Defining FEPI pools using BAS

To create a FEPI pool definition:

- Access the **FEPI pool definitions** view.

- From the **FEPI pool definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **FEPI pool definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **FEPI pool definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS FEPI pool definitions

To install a FEPI pool in an active system:

- Go to the **FEPI pool definitions** tabular view.
- Click the Record check box to select a FEPI pool definition and click on the **Install...** button. Alternatively, click on a FEPI pool definition name and click on the **Install...** button on the **FEPI pool definitions** detailed view.

After installation of a FEPI pool resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > FEPI operations views > Pools** to display the **FEPI pools** tabular view. 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 property set resource definitions

FEPI property set definitions describe the physical and operational characteristics of FEPI property sets.

Accessing FEPI property set definitions

To display information about existing FEPI property set definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **FEPI property set definitions**.

Defining FEPI property sets using BAS

To create a FEPI property set definition:

- Access the **FEPI property set definitions** view.
- From the **FEPI property set definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **FEPI property set definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **DB2 entry definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS FEPI property set definitions

To install a FEPI property set in an active system:

- Go to the **FEPI property set definitions** tabular view.
- Click the Record check box to select a FEPI node list definition and click on the **Install...** button. Alternatively, click on a property set definition name and click on the **Install...** button on the **FEPI property set definitions** detailed view.

After installation of a FEPI property set resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > FEPI operations views > Property sets** to display the **FEPI property sets** tabular view. 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 target list resource definitions

FEPI target list definitions describe the physical and operational characteristics of FEPI targets.

Accessing FEPI target list definitions

To display information about existing FEPI target definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **FEPI target list definitions**.

Defining FEPI target lists using BAS

To create a FEPI target list definition:

- Access the **FEPI target list definitions** view.
- From the **FEPI target list definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **FEPI target list definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **FEPI target list definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS FEPI target list definitions

To install a FEPI target in an active system:

- Go to the **FEPI target list definitions** tabular view.

- Click the Record check box to select a FEPI target list definition and click on the **Install...** button. Alternatively, click on a FEPI target list definition name and click on the **Install...** button on the **FEPI target list definitions** detailed view.

After installation of a FEPI target list resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > FEPI operations views > Targets** to display the **FEPI targets** tabular view. 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.

File resource definitions

File definitions describe the physical and operational characteristics of files.

Accessing BAS file definitions

To display information about existing file definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **File definitions**.

Defining files using BAS

To create a file definition:

- Access the **File definitions** view.
- From the **File definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **File definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **File definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS file definitions

To install a file in an active system:

- Go to the **File definitions** tabular view.
- Click the Record check box to select a file definition and click on the **Install...** button. Alternatively, click on a file definition name and click on the **Install...** button on the **File definitions** detailed view.

After installation of a file resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > File operations views**. Select the file type from the **File operations views** menu. 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 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 file segment definitions

To display information about existing file key segment definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **File segment definitions**.

Defining file key segments using BAS

To create a file segment definition:

- Access the **File key segment definitions** view.
- From the **File key segment definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **File key segment definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **File key segment definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing file key segment definitions

You cannot install file key segment definitions.

Enqueue model definitions

Enqueue model definitions describe how enqueue models are to run in a CICS system.

Accessing global enqueue model definitions

To display information about existing enqueue model definitions:

- From the main menu, click **Administration views**.

- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Global enqueue model definitions**.

Defining global enqueue models using BAS

To create an enqueue model definition:

- Access the **Global enqueue model definitions** view.
- From the **Global enqueue model definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Global enqueue model definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Global enqueue models definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS global enqueue model definitions

To install a enqueue model in an active system:

- Go to the **Global enqueue model definitions** tabular view.
- Click the Record check box to select a enqueue model definition and click on the **Install...** button. Alternatively, click on a enqueue model definition name and click on the **Install...** button on the **Global enqeue** detailed view.

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 WUI. From the main menu, click **CICS operations views > Global enqueue model operations views > Global enqueue model** to display the **Global enqueue model** tabular view. 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.

IP connection resource definitions

IP connection definitions identify remote systems that a CICS system communicates with using IP interconnectivity connections (also known as IPIC connections).

Accessing BAS IPIC connection definitions

To display information about existing connection definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **IPIC connection definitions**.

Defining IPIC connections using BAS

To define a connection:

- Access the **IPIC connection definitions** view.
- From the **IPIC connection definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **IPIC connection definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **IPIC connection definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS IPIC connection definitions

To install a connection in an active system:

- Go to the **IPIC connection definitions** tabular view.
- Click the Record check box to select a CICS system and click on the **Install...** button. Alternatively, click on a CICS system name and click on the **Install...** button on the **IPIC connection definitions** detailed view.

After installation of a IPIC connection definition, you can enquire about the resultant object:

- From the main menu, click **CICS operations views > Connection operations views**. For details of the actions from this view, 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.

ISO/MRO connection resource definitions

ISO/MRO connection definitions identify remote systems that a CICS system communicates with using intersystem communication (ISC) or multiple region operation (MRO).

Accessing BAS ISO/MRO connection definitions

To display information about existing ISO/MRO connection definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **ISO/MRO connection definitions**.

Defining ISC/MRO connections using BAS

To define an ISO/MRO connection:

- Access the **ISC/MRO connection definitions** view.
- From the **ISC/MRO connection definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **ISO/MRO connection definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **ISC/MRO connection definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS ISO/MRO connection definitions

To install a connection in an active system:

- Go to the **ISO/MRO connection definitions** tabular view.
- Click the Record check box to select a CICS system and click on the **Install...** button. Alternatively, click on a CICS system name and click on the **Install...** button on the **ISO/MRO connection definitions** detailed view.

After installation of an ISO/MRO connection definition, you can enquire about the resultant object:

- From the main menu, click **CICS operations views > Connection operations views**. 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.

Journal model resource definitions

Journal model definitions describe the association between a CICS journal name and the MVS system log streams or the SMF log.

Accessing journal model definitions

To display information about existing journal model definitions:

- From the main menu, click **Administration views**.

- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Journal model definitions**.

Defining journal models using BAS

To create a journal model definition:

- Access the **Journal model definitions** view.
- From the **Journal model definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Journal model definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Journal model definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS journal model definitions

To install a journal model in an active system:

- Go to the **Journal model definitions** tabular view.
- Click the Record check box to select a journal model definition and click on the **Install...** button. Alternatively, click on a journal model definition name and click on the **Install...** button on the **Journal model definitions** detailed view.

After installation of a journal model resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Journal operations views > Models** to display the **Journal Models** tabular view. 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*.

LIBRARY resource definitions

LIBRARY definitions describe the attributes for dynamic program LIBRARY resources.

Accessing LIBRARY definitions

To display information about existing LIBRARY definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **Resource definitions** to display the **CICS resource definitions** view.
- Click **LIBRARY definitions**.

Defining LIBRARY resources using BAS

To create a LIBRARY definition:

- Access the **LIBRARY definitions** view.
- From the **LIBRARY definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **LIBRARY definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **LIBRARY definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS LIBRARY definitions

To install a LIBRARY in an active system:

- Go to the **LIBRARY definitions** tabular view.
- Click the Record check box to select a program definition and click on the **Install...** button. Alternatively, click on a LIBRARY definition name and click on the **Install...** button on the **LIBRARY definitions** detailed view.

After installation of a LIBRARY resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Program operations views > LIBRARYs, including DFHRPL**.
- The CICS CEMT INQUIRE LIBRARY command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE PROGRAM command; see CICS System Programming Reference.

LSR pool resource definitions

LSR pool definitions describe the size and characteristics of local shared resource pools that VSAM uses for certain files.

Accessing LSR pool definitions

To display information about existing LSR pool definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **LSR pool definitions**.

Defining LSR pools using BAS

To create an LSR pool definition:

- Access the **LSR pool definitions** view.
- From the **LSR pool definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **LSR pool definitions** create view is displayed.

- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **LSR pool definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS LSR pool definitions

To install an LSR pool in an active system:

- Go to the **LSR pool definitions** tabular view.
- Click the Record check box to select a LSR pool definition and click on the **Install...** button. Alternatively, click on a LSR pool definition name and click on the **Install...** button on the **LSR pool definitions** detailed view.

After installation of a LSR pool resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > File operations views**. From the **File operations views** menu, select either **VSAM LSR pool buffers** or **VSAM LSR pools**. 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.

Map set resource definitions

Map set definitions describe the characteristics of a group of related screen layouts, or maps.

Accessing map set definitions

To display information about existing map set definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Map set definitions**.

Defining map sets using BAS

To create a map set definition:

- Access the **Map set definitions** view.
- From the **Map set definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Map set definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Map set definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS map set definitions

To install a map set in an active system:

- Go to the **Map set definitions** tabular view.
- Click the Record check box to select a map set definition and click on the **Install...** button. Alternatively, click on a map set definition name and click on the **Install...** button on the **Map set definitions** detailed view.

After installation of a map set resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. See Using the CICSPlex SM Web User Interface.
- The CICS CEMT INQUIRE PROGRAM command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE PROGRAM command; see CICS System Programming Reference.

Partition set resource definitions

Partition set definitions describe the characteristics of a display partition configuration.

Accessing partition set definitions

To display information about existing partition set definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Partition set definitions**.

Defining partition sets using BAS

To create a partner set definition:

- Access the **Partition set definitions** view.
- From the **Partition set definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Partition set definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Partition set definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS partition set definitions

To install a partition set in an active system:

- Go to the **Partition set definitions** tabular view.
- Click the Record check box to select a partition set definition and click on the **Install...** button. Alternatively, click on a partition set definition name and click on the **Install...** button on the **Partition set definitions** detailed view.

After installation of a partition set resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI; 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.

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 partner definitions

To display information about existing partner definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Partner definitions**.

Defining partner definitions using BAS

To create a partner definition:

- Access the **Partner definitions** view.
- From the **Partner definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Partner definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Partner definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS partner definitions

To install a partner in an active system:

- Go to the **Partner definitions** tabular view.
- Click the Record check box to select a partner definition and click on the **Install...** button. Alternatively, click on a partner definition name and click on the **Install...** button on the **Partner definitions** detailed view.

After installation of a partner resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI; 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*.

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.

Accessing pipeline definitions

To display information about existing pipeline definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Pipeline definitions**.

Defining pipeline definitions using BAS

To create a partner definition:

- Access the **Pipeline definitions** view.
- From the **Pipeline definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Pipeline definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Pipeline definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS pipeline definitions

To install a process type in an active system:

- Go to the **Pipeline type definitions** tabular view.
- Click the Record check box to select a pipeline definition and click on the **Install...** button. Alternatively, click on a pipeline definition name and click on the **Install...** button on the **Pipeline definitions** detailed view.

After installation of a pipeline resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI; see *CICSPlex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE PIPELINE command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE PIPELINE command; see CICS System Programming Reference.

Process type definitions

Process type definitions describe the physical and operational characteristics of CICS business transaction services (BTS) process types.

Accessing process type definitions

To display information about existing process type definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Process type definitions**.

Defining process types using BAS

To create a process type definition:

- Access the **Process types definitions** view.
- From the **Process types definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Process types definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Process types definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS process type definitions

To install a process type in an active system:

- Go to the **Process type definitions** tabular view.
- Click the Record check box to select a process type definition and click on the **Install...** button. Alternatively, click on a process type definition name and click on the **Install...** button on the **Process type definitions** detailed view.

After installation of a process type resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI; 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.

Profile resource definitions

Profile definitions control the interactions between transactions and terminals or logical units.

Accessing profile resource definitions

To display information about existing profile definitions:

- From the main menu, click **Administration views**.

- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Profile definitions**.

Defining profiles using BAS

To create a profile definition:

- Access the **Profile definitions** view.
- From the **Profile definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Profile definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Profile definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS profile definitions

To install a profile in an active system:

- Go to the **Profile definitions** tabular view.
- Click the Record check box to select a profile definition and click on the **Install...** button. Alternatively, click on a profile definition name and click on the **Install...** button on the **Profile definitions** detailed view.

After installation of a profile resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI; 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.

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 program definitions

To display information about existing program definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Program definitions**.

Defining programs using BAS

To create a program definition:

- Access the **Program definitions** view.
- From the **Program definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Program definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Program definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS program definitions

To install a program in an active system:

- Go to the **Program definitions** tabular view.
- Click the Record check box to select a program definition and click on the **Install...** button. Alternatively, click on a program definition name and click on the **Install...** button on the **Program definitions** detailed view.

After installation of a program resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Program operations views**. 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.

Request model resource definitions

Request model definitions associate inbound IIOP 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 IIOP message and by the form of the object keys distributed by CICS Transaction Server Version 1 Release 3.

Accessing request model definitions

To display information about existing request model definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Request model definitions**.

Defining request models using BAS

To create a request model definition:

- Access the **Request model definitions** view.

- From the **Request model definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Request model definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Request model definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS request model definitions

To install a request model in an active system:

- Go to the **Request model definitions** tabular view.
- Click the Record check box to select a request model definition and click on the **Install...** button. Alternatively, click on a request model definition name and click on the **Install...** button on the **Request model definitions** detailed view.

After installation of a request model resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI command. From the main menu, click **CICS operations views > Transaction operations views > Request models**. 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.

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 session definitions

To display information about existing session definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Session definitions**.

Defining sessions using BAS

To create a session definition:

- Access the **Session definitions** view.
- From the **Session definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Session definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Session definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

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 IIOP and the CICS Web Interface.

Accessing TCP/IP service definitions

To display information about existing TCP/IP service definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **TCP/IP service definitions**.

Defining TCP/IP services using BAS

To create a TCP/IP service definition using BAS:

- Access the **TCP/IP service definitions** view.
- From the **TCP/IP service definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **TCP/IP service definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **TCP/IP service definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing a BAS TCP/IP service definition

To install a TCP/IP service definition in an active system:

- Go to the **TCP/IP service definitions** tabular view.
- Click the Record check box to select a TCP/IP service definition and click on the **Install...** button. Alternatively, click on a TCP/IP service definition name and click on the **Install...** button on the **TCP/IP service definitions** detailed view.

After installation of a TCP/IP service resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > TCP/IP service operations views**. See *CICSPlex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE TCPIPSERVICE command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE TCPIPSERVICE command; see CICS System Programming Reference.

Transient data queue resource definitions

Transient data queue definitions describe intrapartition, extrapartition, indirect, and remote transient data destinations.

Accessing transient data queue definitions

To display information about existing transient data queue definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Transient data queue definitions**.

Defining transient data queues using BAS

To create a transient data queue definition:

- Access the **Transient data queue definitions** view.
- From the **Transient data queue definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Transient data queue definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Transient data queue definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS transient data queue definitions

To install a transient data queue in an active system:

- Go to the **Transient data queue definitions** tabular view.
- Click the Record check box to select a transient data queue definition and click on the **Install...** button. Alternatively, click on a transient data queue definition name and click on the **Install...** button on the **Transient data queue definitions** detailed view.

After installation of a transient data queue resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Transient data queue (TDQ) operations views**. 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.

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 terminal definitions

To display information about existing terminal definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Terminal definitions**.

Defining terminals using BAS

To create a terminal definition:

- Access the **Terminal definitions** view.
- From the **Terminal definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Terminal definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Terminal definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS terminal definitions

To install a terminal into an active system:

- Go to the **Terminal definitions** tabular view.
- Click the Record check box to select a terminal definition and click on the **Install...** button. Alternatively, click on a terminal definition name and click on the **Install...** button on the **Terminal definitions** detailed view.

After installation of a terminal resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Terminal operations views** . 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.

Transaction resource definitions

Transaction definitions describe how transactions are to run in a CICS system.

Accessing transaction definitions

To display information about existing transaction definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Transaction definitions**.

Defining transactions using BAS

To create a transaction definition:

- Access the **Transaction definitions** view.
- From the **Transaction definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Transaction definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Transaction definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS transaction definitions

To install a transaction in an active system:

- Go to the **Transaction definitions** tabular view.
- Click the Record check box to select a transaction definition and click on the **Install...** button. Alternatively, click on a transaction definition name and click on the **Install...** button on the **Transaction definitions** detailed view.

After installation of a transaction resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Transaction operations views** . 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 class definitions

Transaction class definitions describe the operational characteristics for transactions belonging to the class.

Accessing transaction class definitions

To display information about existing transaction class definitions:

- From the main menu, click **Administration views**.

- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Transaction definitions**.

Defining transaction classes using BAS

To create a transaction class definition:

- Access the **Transaction class definitions** view.
- From the **Transaction class definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Transaction class definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Transaction class definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS transaction class definitions

To install a transaction class in an active system:

- Go to the **Transaction class definitions** tabular view.
- Click the Record check box to select a transaction class definition and click on the **Install...** button. Alternatively, click on a transaction class definition name and click on the **Install...** button on the **Transaction class definitions** detailed view.

After installation of a transaction class resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI; 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.

Temporary storage model definitions

Temporary storage model definitions describe the attributes of temporary storage models defined in the CICSPlex SM 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 temporary storage model definitions

To display information about existing temporary storage model definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.

- Click **Temporary storage model definitions**.

Defining temporary storage models using BAS

To create a temporary storage model definition:

- Access the **Temporary storage model definitions** view.
- From the **Temporary storage model definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Temporary storage model definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Temporary storage model definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

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 temporary storage model definition is installed, a temporary storage model is created on the local system. When an EXEC CICS WRITEQ TS command specifies a prefix that matches a temporary storage model prefix, a temporary storage queue is created, using the attributes of the temporary storage model. If the installed temporary storage model specifies a Remote system name, the queue is created on that remote system. However, the temporary storage model definition and the temporary storage model always exist locally. This rule applies whether the temporary storage model is installed using the **Install** button on the **Temporary storage model definition** view, or by resource assignment or resource group. If either a resource assignment definition or a resource group definition is used to install the temporary storage model definition, the Usage parameter must always specify LOCAL.

To install a temporary storage model into an active system:

- Go to the **Temporary storage model definitions** tabular view.
- Click the Record check box to select a temporary storage model definition and click on the **Install...** button. Alternatively, click on a temporary storage model definition name and click on the **Install...** button on the **Temporary storage model definitions** detailed view.

After installation of a temporary storage model resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Temporary storage queue (TSQ) operations views**. 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.

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 *Resource Definition Guide*. for the version of CICS you are running.

Accessing typeterm definitions

To display information about existing typeterm definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Typeterm definitions**.

Defining typeterms using BAS

To create a typeterm definition:

- Access the **Typeterm definitions** view.
- From the **Typeterm definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Typeterm definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Typeterm definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS typeterm definitions

To install a typeterm in an active system:

- Go to the **Typeterm definitions** tabular view.
- Click the Record check box to select a typeterm definition and click on the **Install...** button. Alternatively, click on a typeterm definition name and click on the **Install...** button on the **Typeterm definitions** detailed view.

After installation of a typeterm resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. From the main menu, click **CICS operations views > Terminal operations views** . 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.

URI mapping resource definitions

A URI mapping resource definition matches the URIs of HTTP or web service requests, and provides information. See *CICS Resource Definition Guide* for more information about URI mapping resource definitions in CICS.

Accessing URI mapping definitions

To display information about existing URI mapping definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **URI mapping definitions**.

Defining URI mapping definitions using BAS

To create a URI mapping definition:

- Access the **URI mapping definitions** view.
- From the **URI mapping definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **URI mapping definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **URI mapping definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS URI mapping definitions

To install a program in an active system:

- Go to the **URI mapping definitions** tabular view.
- Click the Record check box to select a URI map definition and click on the **Install...** button. Alternatively, click on a URI map definition name and click on the **Install...** button on the **URI mapping definitions** detailed view.

After installation of a URI map definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. See *CICSPlex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE URIMAP command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE PROGRAM command; see CICS System Programming Reference.

Web service resource definitions

A web service 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 web service resource definitions in CICS.

Accessing web service definitions

To display information about existing URI mapping definitions:

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **CICS resource definitions** to display the **CICS resource definitions** view.
- Click **Web service definitions**.

Defining web service definitions using BAS

To create a web service definition:

- Access the **Web service definitions** view.
- From the **Web service definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **Web service definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **Web service definitions** view is displayed showing the new definition. To add the definition to a resource group, click the **Add to resource group...** button.

Installing BAS web service definitions

To install a typeterm in an active system:

- Go to the **Web service definitions** tabular view.
- Click the Record check box to select a web service definition and click on the **Install...** button. Alternatively, click on a web service definition name and click on the **Install...** button on the **Web service definitions** detailed view.

After installation of a Web service resource definition, you can enquire about the resultant object using:

- The CICSPlex SM WUI. See *CICSPlex System Manager Operations Views Reference*.
- The CICS CEMT INQUIRE WEBSERVICE command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE WEBSERVICE command; see CICS System Programming Reference.

Chapter 17. Resource assignment definitions

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 a 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 object) before any assignment can begin.

Accessing resource assignment definitions

To access from the main menu, click:

- **Administration views > Fully functional Business Application Services (BAS) administration views > Resource assignment definitions**.

Creating a resource assignment

To define a resource assignment:

- Access the **Resource assignment definitions** view.
- To create a definition from an existing resource assignment, click on the check box and click the **Create...** button. To display a blank screen, click on the **Create...** button.
- Fill in the fields and click on **Yes** to create the resource assignment. Click on **No** to abandon the process.

Adding a resource assignment to a resource description

You can add a resource assignment to a resource description in two ways:

- Access the **Resource assignment definitions** view. Either:
  - Select a resource assignment by clicking the check box. Click the **Add to Resource description...** button. The **Add to Resource description** view is displayed.
  - Fill in the fields and click **Yes** to create the association. Otherwise, click **No** to abandon the process.
- Or:
  - Click on a resource assignment name to display the **Resource assignment definitions** (EYUSTARTRASGNDEF.DETAILED) view.
  - Click the **Add to Resource description...** button. The **Add to Resource description** view is displayed.
  - Fill in the fields and click **Yes** to create the association. Otherwise, click **No** to abandon the process.

Note:

1. If you do not specify values for the **Group name**, **Target scope**, and **Related scope** fields on this view, you must do so on the associated resource description 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 30.

Chapter 18. Resource assignments in resource descriptions

The **Resource assignments in a resource description** view describes the membership of a resource assignment (RASGNDEF object) in a resource description (RESDESC object). A **Resource assignments in a resource description** (RASINDSC) association is created automatically when a resource assignment is added to a resource description.

Accessing the Resource assignments in a resource description view

To display information about existing resource descriptions and the resource assignments associated with them, from the main menu, click:

- **Administration views > Fully functional Business Application Services (BAS) administration views > Resource assignments in resource descriptions**.

Updating a resource description-to-assignment association

To update a resource description-to-assignment association:

- Access the **Resource assignments in resource description** view and select a resource assignment by clicking the check box.
- Click the Update... button. The **Resource assignments in resource description** (EYUSTARTRASINDSC.CREATE) view is displayed.
- Update the fields and click **Yes** to update the association. Otherwise, click **No** to abandon the process.

Chapter 19. Resource assignment process

The **Resource assignment process** view (RASPROC object) 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 resource assignment process view

To display information about the expected results of the resource assignment process:

- From the main menu, click **Administration views > Fully functional Business Application Services (BAS) administration views**.
- From the **Resources deployed by...** submenu, click **Resource assignments** to display the **Resource selected by resource assignments** view.

1. Journal definitions (JRNLDEF objects), file key segment definitions (FSEGDEF objects), and session definitions (SESSDEF objects) can appear in a **Resource assignment process** 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 objects) can be installed in a CICS system only if they have associated session definitions (as noted in the **Connection name** field). If the **Connection name** field for a session definition is blank, the connection cannot be installed.

Chapter 20. Selecting resources by resource description

The **Resources selected by resource description** 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

Accessing resources selected by resource description

You can access the **Resources selected by resource description** view in two ways:

-
  - From the main menu, click **Administration views**. From the **Administration views** menu, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views**.
  - From the menu, click **Resource descriptions** to display the **Resource descriptions** tabular view.
  - Click a resource description name to display the **Resource descriptions** detailed view.
  - Click on the link **Associated resource definitions & systems** to display the **Resources selected by resource description** view.
- Or:
  - From the main menu, click **Administration views**. From the **Administration views** menu, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views**.
  - From the menu, Under Associations, click **CICS resource definitions in resource groups** to display the **CICS resource definitions in resource group** tabular view.
  - Click on a resource group name to display the **Resource group definitions** detailed view.
  - Click the link **Resource descriptions with which this is associated** to display the **Resource groups in description** view.
  - Click a resource description name to display the **Resource descriptions** detailed view.
  - Click on the link **Associated resource definitions & systems** to display the **Resources selected by resource description** view.

Chapter 21. Resource descriptions

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 resource descriptions

To access resource descriptions

- From the main menu, click **Administration views**. From the **Administration views** menu, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views**.
- From the menu, click **Resource descriptions** to display the **Resource descriptions** tabular view.

Creating a resource description

To create a resource description:

- Access the **Resource descriptions** view.
- Click the **Create...** button to display a blank **Resource descriptions** detailed view. Otherwise, to base the new definition on an existing definition, click the Record check box and click the **Create...** button.
- Fill in the fields and click the **Yes** button to create the resource description. Otherwise, click **No** to end the process.

Replacing a resource description

To replace a resource description:

- Access the **Resource descriptions** tabular view and select a resource description by clicking the Record check box.
- Click the **Replace...** button to display the **Resource descriptions** replace view.
- Amend the fields as necessary and click **Yes** to replace the resource description. otherwise click **No** to end the process.

When you replace a resource description, 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” on page 56.

Chapter 22. Resource groups definition view

A resource group (RESGROUP object) 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 resource group definitions

To access the resource group definitions:

- From the main menu, click **Administration views**.
- From the **Administration views** menu, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views**.
- Under **Definitions**, click **Resource groups** to display the **Resource group definitions** tabular view.

Creating a resource group

To create a resource group:

1. Access the **Resource group definitions** (EYUSTARTRESGROUP.TABULAR) view as described in “Accessing resource group definitions.”
2. Click the Create... button to display the **Resource group definitions** (EYUSTARTRESGROUP.CREATE) view.
3. Type in the attribute values.
4. Click Yes to create the resource group definition or No to return to the **Resource group definitions** view without creating the resource group.

Adding a resource group to a resource description

To add a resource group to a resource description: To add resource definitions to a resource group:

1. Access the **Resource group definitions** (EYUSTARTRESGROUP.TABULAR) view as described in “Accessing resource group definitions”
2. Select a resource group by clicking on the box in the record column
3. Click on the Add to Resource description.... The **Add to Resource description** (EYUSTARTRESGRP.ADDTODSC) view is displayed.
4. Type in the name of the resource description. Optionally, supply additional explanatory information in the Description field.
5. Click Yes to add the resource group to the resource description or No to stop the process.

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 30.

Chapter 23. Resource groups in description

The **Resource groups in description** view describes the membership of a resource group (RESGROUP object) in a resource description (RESDESC object). A Resource groups in description 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 object).

Accessing resource groups in descriptions

To access resource groups in a resource description:

- From the main menu, click **Administration views**.
- From the **Administration views** menu, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views**.
- Under **Associations**, click **Resource groups in description** to display the **Resource groups in descriptions** tabular view.

Updating a resource description-to-group association

To update a resource description-to-group association:

- Access the **Resource groups in description** view.
- Select an association by clicking the Record check box and click the **Update...** button. The **Resource groups in description** create view is displayed.

Resource groups in description attributes

Description
(Optional.) A 1- to 30-character description of a resource description-to-group association.

Chapter 24. Resource definitions in resource group

The Resource definitions in resource group view (RESINGRP object) displays information about resource groups and the resource definitions associated with them. A **Resource definitions in resource group** association is created automatically when a resource definition is added to a resource group (RESGROUP object).

Accessing resources in resource groups

To access resources in resource groups:

- From the main menu, click **Administration views**.
- From the Administration views menu, click either **CICS basic resource administration views** or **Fully functional Business Application Services (BAS) administration** views.
- From the menu, under **Associations**, click **Resource definitions in resource groups** to display the **CICS resource definitions in resource group** tabular view.

Chapter 25. CICS system link definitions

The **CICS system link definitions** view displays information about the links between CICS systems in a CICSplex.

Accessing the CICS system link definitions view

To display information about the links that exist between CICS systems in the CICSplex (SYSLINK objects):

- From the main menu, click **Administration views**.
- From the **Administration views menu**, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views.**
- Click **System link definitions** to display the **CICS system link definitions** view.

The terms Primary and Secondary are used in the **CICS system link definitions** view to identify two CICS systems to be connected by a corresponding link. The Primary system has the values defined in the installed connection definitions (CONNDEF objects) and session definitions (SESSDEF objects). 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 **CICS system link definitions** 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 **CICS system link definitions** 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 **CICS system link definitions** view cannot adequately filter the records.

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 CICS system definition (CICSSYS view) 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.

Defining a CICS system link

To create a CICS system link:

- Access the **CICS system link definitions** view.
- From the **CICS system link definitions** view, click the **Create...** button. To use an existing definition as the basis of the new one, click the check box before clicking the **Create...** button. The **CICS system link definitions** create view is displayed.
- Fill in the relevant fields and click **Yes** to create the definition. Click **No** to abandon the process.

The **CICS system link definitions** view is displayed showing the new definition.

Removing a CICS system link

To remove a CICS system link:

- Access the **CICS system link definitions** view.
- From the **CICS system link definitions** view, click the check box by the CICS system link to be removed.
- Click the **Remove...** button. The **Remove** view is displayed.
- Click **Yes** to remove the CICS system link definition. Otherwise click **No** to abandon the process.

Chapter 26. CICS system resources

The **Resources assigned to CICS systems** 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.

Accessing the SYSRES view

To display information about the resources that will be assigned to a CICS system:

- From the main meu, click **Administration views**
- From the **Administration views** menu, click either **Basic CICS resource administration views** or **Fully functional Business Application Services (BAS) administration views**.
- In the **Resources deployed by...** submenu, click **CICS system**. The **Resource assigned to CICS systems** view is displayed

Bibliography

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 2:

Memo to Licensees, GI10-2559
CICS Transaction Server for z/OS Program Directory, GI13-0515
CICS Transaction Server for z/OS Release Guide, GC34-6811
CICS Transaction Server for z/OS Installation Guide, GC34-6812
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, GI13-0515
CICS Transaction Server for z/OS Release Guide, GC34-6811
CICS Transaction Server for z/OS Migration from CICS TS Version 3.1, GC34-6858

CICS Transaction Server for z/OS Migration from CICS TS Version 1.3, GC34-6855
CICS Transaction Server for z/OS Migration from CICS TS Version 2.2, GC34-6856
CICS Transaction Server for z/OS Installation Guide, GC34-6812

Administration

CICS System Definition Guide, SC34-6813
CICS Customization Guide, SC34-6814
CICS Resource Definition Guide, SC34-6815
CICS Operations and Utilities Guide, SC34-6816
CICS Supplied Transactions, SC34-6817

Programming

CICS Application Programming Guide, SC34-6818
CICS Application Programming Reference, SC34-6819
CICS System Programming Reference, SC34-6820
CICS Front End Programming Interface User's Guide, SC34-6821
CICS C++ OO Class Libraries, SC34-6822
CICS Distributed Transaction Programming Guide, SC34-6823
CICS Business Transaction Services, SC34-6824
Java Applications in CICS, SC34-6825
JCICS Class Reference, SC34-6001

Diagnosis

CICS Problem Determination Guide, SC34-6826
CICS Messages and Codes, GC34-6827
CICS Diagnosis Reference, GC34-6862
CICS Data Areas, GC34-6863-00
CICS Trace Entries, SC34-6828
CICS Supplementary Data Areas, GC34-6864-00

Communication

CICS Intercommunication Guide, SC34-6829
CICS External Interfaces Guide, SC34-6830
CICS Internet Guide, SC34-6831

Special topics

CICS Recovery and Restart Guide, SC34-6832
CICS Performance Guide, SC34-6833
CICS IMS Database Control Guide, SC34-6834
CICS RACF Security Guide, SC34-6835
CICS Shared Data Tables Guide, SC34-6836
CICS DB2 Guide, SC34-6837
CICS Debugging Tools Interfaces Reference, GC34-6865

CICSPlex SM books for CICS Transaction Server for z/OS

General

CICSPlex SM Concepts and Planning, SC34-6839
CICSPlex SM User Interface Guide, SC34-6840
CICSPlex SM Web User Interface Guide, SC34-6841

Administration and Management

CICSPlex SM Administration, SC34-6842
CICSPlex SM Operations Views Reference, SC34-6843
CICSPlex SM Monitor Views Reference, SC34-6844
CICSPlex SM Managing Workloads, SC34-6845
CICSPlex SM Managing Resource Usage, SC34-6846
CICSPlex SM Managing Business Applications, SC34-6847

Programming

CICSPlex SM Application Programming Guide, SC34-6848
CICSPlex SM Application Programming Reference, SC34-6849

Diagnosis

CICSPlex SM Resource Tables Reference, SC34-6850
CICSPlex SM Messages and Codes, GC34-6851
CICSPlex SM Problem Determination, GC34-6852

CICS family books

Communication

CICS Family: Interproduct Communication, SC34-6853
CICS Family: Communicating from CICS on zSeries, SC34-6854

Licensed publications

The following licensed publications are not included in the unlicensed version of the Information Center:

CICS Diagnosis Reference, GC34-6862
CICS Data Areas, GC34-6863-00
CICS Supplementary Data Areas, GC34-6864-00
CICS Debugging Tools Interfaces Reference, GC34-6865

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 2.

Designing and Programming CICS Applications	SR23-9692
CICS Application Migration Aid Guide	SC33-0768
CICS Family: API Structure	SC33-1007
CICS Family: Client/Server Programming	SC33-1435
CICS Transaction Gateway for z/OS Administration	SC34-5528
CICS Family: General Information	GC33-0155
CICS 4.1 Sample Applications Guide	SC33-1173
CICS/ESA 3.3 XRF Guide	SC33-0661

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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.

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 CICS system in one of these ways:

- 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

IBM Personal Communications provides 3270 emulation with accessibility features for people with disabilities. You can use this product to provide the accessibility features you need in your CICS system.

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CICS Transaction Server for z/OS
CICSPlex SM Managing Business Applications
Version 3 Release 2

Publication No. SC34-6847-03

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