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Preface

This book provides administration and usage information for Business Application Services (BAS). Business Application Services (BAS) is a component of the CICSPlex® SM element of CICS® Transaction Server for OS/390® Release 3.

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 and the CICSPlex SM Starter Set

- CICSPlex System Manager User Interface Guide
  For information about using the ISPF end-user interface to CICSPlex SM

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

CICS system connectivity

This release of CICSPlex SM may be used to control CICS systems that are directly connected to it, and indirectly connected through a previous release of CICSPlex SM.

For this release of CICSPlex SM, the directly-connectable CICS systems are:

- CICS Transaction Server for z/OS 2.1
- CICS Transaction Server for OS/390 1.3
- CICS Transaction Server for OS/390 1.2
- CICS Transaction Server for OS/390 1.1
- CICS for MVS/ESA 4.1
- CICS for OS/2 3.1
- CICS for OS/2 3.0

CICS systems that are not directly connectable to this release of CICSPlex SM are:

- CICS for MVS/ESA 3.3
- CICS for MVS 2.1.2
- CICS/OS2 2.0.1

Note: IBM Service no longer supports these CICS release levels.

You can use this release of CICSPlex SM to control CICS systems 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 Guide for information on how to do this.

Table 1 shows which CICS systems may be directly connected to which releases of CICSPlex SM.

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

<table>
<thead>
<tr>
<th>CICS system</th>
<th>CICSPlex SM component of CICS TS 2.1</th>
<th>CICSPlex SM component of CICS TS 1.3</th>
<th>CICSPlex SM 1.3</th>
<th>CICSPlex SM 1.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CICS TS 2.1</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CICS TS 1.3</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CICS TS 1.2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>CICS TS 1.1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CICS for MVS/ESA 4.1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>CICS for MVS/ESA 3.3</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>CICS for OS/2 3.1</td>
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<td>Yes</td>
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<td>No</td>
</tr>
<tr>
<td>CICS for OS/2 3.0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CICS/OS2 2.0.1</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes on terminology

In the text of this book, the term **CICSPlex SM** (spelled with an uppercase letter P) means the IBM CICSPlex System Manager element of CICS Transaction Server for z/OS, Version 2 Release 1. The term **CICSpex** (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 2 Release 1

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

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

- Type the command in the COMMAND field, place the cursor on the appropriate field, and press Enter.
- Move the cursor to the appropriate field and press the PF key to which the command is assigned.
Syntax notation and conventions used in this book

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

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

The following conventions also apply to CICSPlex SM syntax descriptions:

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

The syntax descriptions of certain character string expressions (such as filter expressions) use a different syntax notation. You interpret those syntax diagrams by following the arrows from left to right. The conventions are:
<table>
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<th>Symbol</th>
<th>Action</th>
</tr>
</thead>
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<td><img src="image1" alt="Symbol" /></td>
<td>A set of alternatives—one of which you <strong>must</strong> code.</td>
</tr>
<tr>
<td><img src="image2" alt="Symbol" /></td>
<td>A set of alternatives—one of which you <strong>must</strong> code. You <strong>may</strong> code more than one of them, in any sequence.</td>
</tr>
<tr>
<td><img src="image3" alt="Symbol" /></td>
<td>A set of alternatives—one of which you <strong>may</strong> code.</td>
</tr>
<tr>
<td><img src="image4" alt="Symbol" /></td>
<td>A set of alternatives — any number (including none) of which you may code once, in any sequence.</td>
</tr>
<tr>
<td><img src="image5" alt="Symbol" /></td>
<td>Alternatives where A is the default.</td>
</tr>
<tr>
<td><img src="image6" alt="Symbol" /></td>
<td>Use with the named section in place of its name.</td>
</tr>
<tr>
<td><strong>Name:</strong></td>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td><img src="image7" alt="Symbol" /></td>
<td>Punctuation and uppercase characters Code exactly as shown.</td>
</tr>
<tr>
<td><img src="image8" alt="Symbol" /></td>
<td>Lowercase characters Code your own text, as appropriate (for example, name).</td>
</tr>
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</table>
Summary of changes

This book is based on the Release 3 edition of CICSpex SM Managing Business Applications, SC33-1809-00. Changes are indicated by a vertical bar to the left of the changes.

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

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

- EJCODEF, to define CorbaServers; see Chapter 27, CorbaServer definitions on page 121.
- EJDJDEF, to define CICS-deployed JAR files; see Chapter 28, CICS-deployed JAR file definitions on page 127.

Changed resource types are:

- RQMDEF; see Chapter 49, Request model resource definitions on page 243.
- PROGDEF; see Chapter 47, Program resource definitions on page 237.
- TCPDEF; see Chapter 51, TCP/IP service resource definitions on page 267.
- TRANDEF; see Chapter 54, Transaction resource definitions on page 293.

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

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

- New BAS objects:
  - DOCDEF, which defines a document template for use in managed CICS systems.
  - ENQMDEF, which defines an enqueue model.
  - PROCDEF, which defines a CICS business transaction services (BTS) process type.
  - RQMDEF, which defines a request model to associate inbound IIOP requests with a set of execution characteristics.
  - TCPDEF, which defines a TCP/IP service that is to use internal sockets support.
  - TSMDEF, which defines a temporary storage queue model.
  - FEPOODEF, which defines a FEPI pool.
  - FENODDEF, which defines a FEPI node.
  - FEPRODEF, which defines a FEPI property set.
  - FETRGDEF, which defines a FEPI target.

- Changes to the FILEDEF object to support coupling facility data tables:
  - New fields have been added: CFDTPool, TABLENAME, UPDATEMODEL, and LOAD.
  - The Keylength, Table, and Maxnumrecs attributes have changed.

- Changes to the TRANDEF object to support the new dynamic routing facilities:
  - A new field, Routable, has been added.
  - The use of the Dynamic field has changed.

- A new field, Dynamic, has been added to the PROGDEF object to support the new dynamic routing facilities.
A new field, Concurrency, has been added to the PROGDEF object to support the Open Transaction Environment.

Two new fields, JVM and JVMClass, have been added to the PROGDEF object to support running Java applications under the control of a Java Virtual Machine (JVM).

In addition to changes made for new function, the following changes have been made to this book for CICS Transaction Server for z/OS, Version 2 Release 1:

- The information on using the end-user interface (EUI) has been removed. For all information relating to the EUI, see the CICSPlex System Manager User Interface Guide.

- The SYSLINK command has been moved from the CICSPlex System Manager Administration to “Chapter 66. SYSLINK (system links) view” on page 379.
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 CICSpex. 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 CICSpex by:

- Providing a single-system image approach to defining CICS resources on the ESA, MVS, and OS/2 platforms.
- 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 CICSpex. 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. For systems running CICS/ESA 4.1 or later, you can use BAS to install your resources either automatically, at CICS initialization, or dynamically, while a system is running. A single resource can be installed in multiple CICS systems either locally or remotely, as appropriate.

Business Application Services supports the following CICS resources:

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

- CorbaServers
- CICS BTS process types
- DB2® connections and transactions
- Deployed JAR files
- Document templates
- FEPI nodes, pools, property sets and targets
- Files and key file segment definitions
- IIOP request models
- Map sets
- Partition sets
- Programs
- Sysplex enqueue models
- TCP/IP services
### 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)
- ISPF
- The batched repository-update facility end-user interface views

Using the API

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

For a complete description of the API, see the CICSPlex System Manager Application Programming Reference book.

Using the end-user interface views

The end-user interface views are most useful for the day-to-day management of resource definitions. They provide an immediate, interactive look at your resource definitions. With the action commands that CICSPlex SM provides, you can create an isolated resource for testing purposes, alter attributes in multiple definitions, or install a new version of a definition in a running system.

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

Using the batched repository-update facility

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

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

Migrating resource definitions
The batched repository-update facility is an essential tool for migrating resource definitions from CICS to CICSPlex SM. CICSPlex SM provides an exit routine that can extract records from an existing CSD file and generate equivalent resource definitions for input to the batched repository-update facility. For more information about the exit routine, see Chapter 22. Extracting records from the CSD on page 85.
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 System Manager 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 an end-user interface, they are represented by views.

There are two types of Business Application Services objects:
- Resource definition objects
- Administration objects

Resource definition objects

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

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

The end-user interface views for the resource definition objects are described in "Browse a resource definition" on page 27.

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 CICSpix 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.

xxxINGRP

Associates resource definitions of a given type (xxxxDEF) with a resource group.

For example, the association between CONNDEFs and their resource groups is represented by the CONINGRP resource table. Note, however, that the associations for all resource types are represented by a single end-user interface view called RESINGRP.

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

Figure 1. Views for managing CICS resources - a simple approach
Figure 2 illustrates a more selective approach with the resource assignment playing a key role in the selection and assignment of resources.

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.

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

SYSLINK
Describes the links that exist between CICS systems in your CICSplex. You can use SYSLINK to create and install CICS system links.
## Table 2. CEDA and BAS administrative functions

<table>
<thead>
<tr>
<th>CICS CEDA</th>
<th>CICSp lex SM BAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINE resource</td>
<td>RESDEF CREATE</td>
</tr>
<tr>
<td>USERDEFINE resource</td>
<td>RESDEF CREATE against model</td>
</tr>
<tr>
<td>INSTALL resource</td>
<td>RESDEF INSTALL</td>
</tr>
<tr>
<td>VIEW resource</td>
<td>RESDEF BROWSE</td>
</tr>
<tr>
<td>ALTER resource</td>
<td>RESDEF ALTER</td>
</tr>
<tr>
<td>COPY group</td>
<td>RESGROUP CREATE members</td>
</tr>
<tr>
<td>MOVE group</td>
<td>RESGROUP CREATE association</td>
</tr>
<tr>
<td>INSTALL group</td>
<td>RESGROUP INSTALL</td>
</tr>
<tr>
<td>DISPLAY group</td>
<td>RESGROUP</td>
</tr>
<tr>
<td>CHECK group/list</td>
<td>Implicit - consistent set processing</td>
</tr>
<tr>
<td>DISPLAY list</td>
<td>RESDESC</td>
</tr>
<tr>
<td>No equivalent</td>
<td>MAP</td>
</tr>
<tr>
<td>ADD group to list</td>
<td>RESGROUP ADD</td>
</tr>
<tr>
<td>APPEND list to list</td>
<td>RESDESC CREATE model</td>
</tr>
<tr>
<td>EXPAND group/list</td>
<td>RESINDSC/RESINGRP</td>
</tr>
<tr>
<td>INSTALL list</td>
<td>RESDESC INSTALL</td>
</tr>
<tr>
<td>DELETE</td>
<td>REMOVE</td>
</tr>
<tr>
<td>LOCK/UNLOCK</td>
<td>No equivalent (use security)</td>
</tr>
</tbody>
</table>

CICSp lex SM provides the same functions as the CICS CEDA transaction, with a few minor differences. CICSp lex 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 CICSpixl environment, CICSpixl 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 CICSpixl 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 CICSpixl SM data repository.

**BAS.resource**

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

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

In addition to controlling access by function, you may want to limit the use of these functions to certain resources in certain CICS systems. CICSpixl 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 CICSpixl as the context is automatically distributed to all CMASs in the CICSpixl. Therefore, giving a user authority to create BAS objects is equivalent to giving authority to install resources on any CICS system in the CICSpixl. When the CICS system starts, there is no check on who installed the resource in the system.

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

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

You can create a resource definition that describes many similar, if not identical, resources by specifying those attributes that are common to all the resources. You can even specify attributes that apply to a remote instance of the resource along with the local attributes. CICSPlex SM uses the appropriate subset of attributes as it assigns the local and remote resources to various CICS systems.
Chapter 7. Accessing the BAS resource definition views

You can access a resource definition view by doing any of the following:

- Issuing the MENU ADMRES command and selecting the view from the menu that is displayed. (The menu is shown in Figure 3.)
- Issuing the appropriate resource definition view command.

### Figure 3. The ADMRES menu

For additional information about accessing views, see [CICSPlex System Manager User Interface Guide](#).

Reminder: Unless noted otherwise, only the context setting is recognized when you are creating and maintaining resource definitions. For additional information about setting the context, see [CICSPlex System Manager User Interface Guide](#).

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

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

**ADD**
To add a resource definition to a resource group, as described in "Adding a resource definition to a resource group" on page 45.

**ALTER**
To alter the attributes of multiple resource definitions of a given type, as described in Figure 6 on page 27.

**BROWse**
To browse a resource definition in the data repository, as described in "Update a resource definition" on page 25.

**CREATE**
To create a resource definition and add it to the data repository, as described in "Chapter 10. Creation of resource definitions" on page 23.

**INSTALL**
To install a resource in one or more active systems, as described in "Chapter 21. Dynamic resource installation" on page 75. For details of valid systems, see the descriptions of the individual BAS objects.

**REMOVE**
To remove a resource definition from the data repository, as described in "Remove a resource definition" on page 31.

**UPDATE**
To update a resource definition in the data repository, as described in "Update a resource definition" on page 25.

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

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

Common definition fields

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

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

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

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

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

Version

The version number of the resource definition.

You can specify one of the following:

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

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

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

For a description of how CICSplex SM handles the versioning of resource definitions, see "Chapter 8. Multiple versions of a resource definition" on page 19.

Description

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

RESGROUP

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

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

- Using the ADD action from a resource definition view to add a single definition to a group, as described in "Adding a resource definition to a resource group" on page 45.
- Using the RES action from the RESGROUP view to add multiple definitions of a given resource type to a group, as described in "Adding resource definitions to a resource group" on page 368.

User Data

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

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

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

Notes:

1. For any resource definitions that contain password fields, the password you enter does not appear on the create panel while you are typing it.
common resource definition actions

2. For detailed information on CICS resource definitions, refer to the CICS/ESA Resource Definition Guide (or the Resource Definition (Online) book) for the version of CICS you are running.
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 CICSpex.

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

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

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

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

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

Notes:

1. CICSPlex SM does not generate a new version when you update an existing resource definition.
2. As with the Name field of the resource definition, the Version field cannot be changed while browsing or updating a resource definition in a view. Furthermore, when creating a new resource definition, the Version field, (also like the Name field) can be entered on the first 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, which are displayed in the resource definition view as the Created and Changed fields, are recorded using the time zone of the maintenance point CMAS, not the user who created or changed the definition. In addition, the values are fixed at the time they are recorded; they are not affected by any subsequent changes to the time zone of the maintenance point CMAS.

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

- Inspect the date and time fields
- Make explicit use of the User Data fields of the definition when creating definitions. These fields are attributes of the resource definition, and can be used as filter criteria in the Install panels, with the RASGNDEF command, 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.
Details of the connectivity of CICS systems to releases of CICSPlex SM are given in “CICS system connectivity” on page xiii.

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

When you display a resource definition view and your CICSpexit 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 CICSpexit consists solely of systems running a release of CICS that is not available, the following message is displayed:

BBMXBD15I There is no data that satisfies your request.

When you issue an action command that is not available for the release of CICS on which your CICS system is running, the following message is displayed:

EYUEIO596E Action 'action name' for 'sysname' not supported for this release of CICS

where:

action name
is the action command you attempted.

sysname
is the CICS system for which you made the attempt.
availability for CICS releases
Chapter 10. Creation of resource definitions

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

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

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

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

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

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

**Note:** Resources become “real” to CICS when they are installed. CICSPlex SM can install resources in a system running CICS/ESA 4.1 or later, as described in “Chapter 18. Installation of CICS resources” on page 59.

Many of the resource definitions consist of a large number of attributes and multiple input panels are required to create them. Figure 4 on page 24 is an example of the first input panel produced when you are creating a connection resource definition.
<table>
<thead>
<tr>
<th>Command</th>
<th>Name</th>
<th>Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RESGROUP**

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

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

*Figure 4. Creating a resource definition - Page 1*
Chapter 11. Maintenance of resource definitions

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

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

Update a resource definition

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

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

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

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

Figure 5 on page 26 is an example of the first input panel produced when you are updating a resource definition.
### Update Connection Definition for EYUPLX01 Page 1

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>C00A</th>
<th>Version</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td>Description</td>
<td>System A Connection</td>
</tr>
<tr>
<td>Created</td>
<td>1/09/97 08:36</td>
<td>Changed</td>
<td>1/09/97 08:36</td>
</tr>
</tbody>
</table>

#### User Data

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

---

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

---

**Figure 5. Updating a resource definition - Page 1**

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

The Name, Description, and User Data fields are the same fields that appear on the create panel, as shown in **Figure 4 on page 24**. The RESGROUP field that appears on the create panel does not appear when you are updating or browsing a resource definition. You can add a resource definition to a resource group when you create the definition, but not when you update it.

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

- **Created**: The date and time at which the resource definition was created.
- **Changed**: The date and time at which the resource definition was last updated.
- **Notes**:
  1. The Created and Changed values are recorded using the time zone of the maintenance point CMAS, not the user who created or changed the resource definition. In addition, these values are fixed at the time they are recorded; they are not affected by any subsequent changes to the time zone of the maintenance point CMAS.
  2. For any resource definitions that contain password fields, the password is not displayed on the update panels. The field name appears highlighted to indicate a password exists; the field itself contains blanks. You can use the update panel to change or remove an existing password or add a new password for the resource definition.
  3. Updating a resource definition that is associated with a resource group could result in inconsistent resource set errors. For information about this type of problem and how to resolve it, see "Validation of a set of resources" on page 38.
4. You cannot change the Name field or the Version field when you update a resource definition.

## Browse a resource definition

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

The browse panels are similar to the panels used to create the definition; see Figure 6.

---

**Figure 6. Browsing a resource definition - Page 1**

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

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

**Created**

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

**Changed**

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

**Notes:**

1. The Created and Changed values are recorded using the time zone of the maintenance point CMAS, not the user who created or changed the resource definition. In addition, these values are fixed at the time they are recorded; they are not affected by any subsequent changes to the time zone of the maintenance point CMAS.

2. For any resource definitions that contain password fields, the password is not displayed on the browse panels. The field name appears highlighted to indicate a password exists; the field itself contains blanks.
Alter multiple resource definitions

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

For example, to update several connection definitions that share common attributes, you would:
1. Display the CONNDEF view.
2. Issue the ALTER action command.
3. Complete the Alter CICS Resource panel.

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

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

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

Provide the following information, as appropriate:

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

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

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

Filter Expression

logic_expr:

\[
\text{logic_expr:}
\]

\[
\text{logic_expr:}
\]

\[
\text{logic_expr:}
\]
**attr_expr:**

---attropervalue---

where:

**attr**

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

**oper**

Is one of the following comparison operators:

- `<`  Less than
- `<=`  Less than or equal to
- `=`  Equal to
- `>=`  Greater than or equal to
- `>`  Greater than
- `!=`  Not equal to

**value**

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

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

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

- A plus sign (`+`), to represent a single character. A `+` can appear in one or more positions in the specified value. For example:
  
  TRANID=PAY++96

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

TERMD='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:

\texttt{NOT \textit{attr\_expr}}

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

\texttt{NOT (attr\_expr OR attr\_expr)}.

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

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

\textbf{Alter string expression}

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

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

\texttt{Alter Expression}

\begin{verbatim}

\texttt{attr=value}

\end{verbatim}

where:

\textit{attr}

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

\textit{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:
  \begin{verbatim}
  \texttt{DESCRIPTION='Payroll.OCT'}
  \end{verbatim}
- To include a single quote or apostrophe in a value, you must repeat the character, like this:
  \begin{verbatim}
  \texttt{DESCRIPTION='October''s Payroll'}
  \end{verbatim}

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

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

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

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

- Make the necessary changes to the resource definition and press Enter. CICSPlex SM resumes the alteration process.
  
  For each additional error that is detected, the update panel is redisplayed, until all the resource definitions have been successfully altered.

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

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

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

**Remove a resource definition**

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

**Figure 7** shows the format of the panel produced when you issue the remove primary (REMove) or line (REM) action command from a resource definition view.

| COMMAND ===>| Name FILEDF01 Version 0 |
| Description |
| Type File Definition |

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

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

**Figure 7. Removing a resource definition**

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

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

**Version**  The version of the resource definition being removed.

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

**Type**  The type of resource definition being removed.
Press Enter to remove the resource definition from the CICSPlex SM data repository. To cancel the remove action, type END or CANCEL; the resource definition remains in the data repository.
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 CICSpex.

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

```
CICS System A
   CONNECTION(SYSB)... 
   SESSION(S0AB)... 
CICS System B
   CONNECTION(SYSA)... 
   SESSION(S0BA)... 
```

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

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

Figure 8 illustrates the resource definitions that are required for CICSpex 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 8. An example of defining communication links
```

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

1. Define the CICS systems to CICSpex SM.
defining links between CICS systems

Use the CICSSYS view to identify all of the CICS systems you want to connect. Of course, if you are already using CICSPlex SM, you have already identified your CICS systems. CICSPlex SM uses the CICS system ID (SYSIDNT) you specify to identify the system link.

2. Define the connections and sessions.

Use the CONNDEF view to create connection definitions for each type of system link you want to create (such as APPC or EXCI). Similarly, use the SESSDEF view to create an appropriate session definition for each connection. Both connection and session definitions are required for each type of system link in your network.

3. Define the system links.

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

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

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

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

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

Figure 9 on page 35 provides an overview of the end-user interface views used to define links between CICS systems.
Figure 9. Views for defining links between CICS systems
Validation of individual resource definitions

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

**Individual attributes of a resource**

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

**Notes:**

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

**Interdependent resource attributes**

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

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

**Release-specific resource attributes**

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

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

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

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

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

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

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

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

Notes:

1. A DB2EDEF that has a transaction id specified can create both a DB2NTRY and a DB2TRN operational object when the DB2EDEF is installed (see [Chapter 30. DB2 entry resource definitions" on page 141]). Therefore, you may get inconsistent set errors because two or more DB2EDEFs have the same transaction id specified, or clash with an explicitly defined DB2TDEF that has the same name as that generated from a DB2EDEF, which would cause a conflict.

2. You can change the value of selected BAS objects using the Override field a RASGNDEF object, as described on page 335. If you use this method to change the Transid field of a DB2EDEF and there is a resulting clash of names of DB2TRAN objects, CICSPlex SM does not detect this fact as part of inconsistent set processing.

If any of the resource definition changes you request would result in an inconsistent set of resources for a CICS system, a panel like the one shown in Figure 10 is displayed.

FIGURE 10. A list of CICS systems with inconsistent set errors
how CICSPlex SM validates resource definitions

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

When you press Enter, the list of inconsistent resource set errors for the first CICS system you selected is displayed. Figure 11 shows a sample list of inconsistent resource set errors.

<table>
<thead>
<tr>
<th>COMMAND ==&gt;</th>
<th>Scroll ==&gt; PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Errors found for EYUMAS1A</td>
<td></td>
</tr>
<tr>
<td>ResName</td>
<td>Ver</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
</tr>
<tr>
<td>TRANDEF ET01</td>
<td>1</td>
</tr>
<tr>
<td>EXISTING ET01</td>
<td>1</td>
</tr>
</tbody>
</table>

**Figure 11. A list of inconsistent resource set errors**

The title of this panel indicates what you were trying to do when resource inconsistencies were detected. For example, the title in Figure 11 is “Update RASGNDEF Errors”. That means changes you made when updating a resource assignment resulted in the inconsistent resource set errors.

The remainder of Figure 11 shows a list of the resource pairs (candidate and existing) that are in conflict. The following information is provided for each pair:

**ResType**
- The type of resource.

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

**Ver**
- The version of each resource.

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

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

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

**Usage**
- How the candidate or existing resource is defined in the resource assignment:
Validation CICS system assignments

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

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

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

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

If any of the changes you request would result in inconsistent scopes, a panel like the one shown in Figure 12 on page 41 is displayed.
The title of this panel indicates what you were trying to do when CICSPlex SM detected scope inconsistencies. For example, the title in Figure 12 is "Update RASGNDEF Errors". That means changes you made when updating a resource assignment resulted in the inconsistent scope errors.

The remainder of Figure 12 shows a list of the target and related scopes that are in conflict. The following information is provided for each CICS system or system group that would result in inconsistent scopes:

- **Target Scope**: The name of the CICS system or CICS system group that you specified as the target scope.
- **Target Assignmt**: The name of the resource assignment associated with the target scope.
- **Target Descript**: The name of the resource description associated with the target scope.
- **Related Scope**: The name of the CICS system or CICS system group that you specified as the related scope.
- **Related Assignmt**: The name of the resource assignment associated with the related scope.
- **Related Descript**: The name of the resource description associated with the related scope.
- **Cicsname**: The name of a CICS system that is common to both the target and related scopes.
- **Error Code**: A CICSPlex SM error code that describes the condition that would result in inconsistent scopes. The error code will be one of the following:
  - **CicsName in Both**: The same CICS system is contained in both the target and related scopes.
  - **Multi in Related**: The related scope consists of more than one CICS system.
  - **No SYSID for Rel**: The related scope is a CICS system for which no system ID was defined to CICSPlex SM.

<table>
<thead>
<tr>
<th>Target Scope</th>
<th>Target Assignmt</th>
<th>Target Descript</th>
<th>Related Scope</th>
<th>Related Assignmt</th>
<th>Related Descript</th>
<th>Cicsname</th>
<th>Error Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EYUCG01</td>
<td>EYUBAA02</td>
<td>EYUMAS1A</td>
<td>EYUCG01</td>
<td>EYUBAA02</td>
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<td>EYUCG01</td>
<td>CicsName in Both</td>
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<td>CicsName in Both</td>
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<tr>
<td>EYUCG01</td>
<td>EYUBAA02</td>
<td>EYUMAS2A</td>
<td>EYUCG01</td>
<td>EYUBAA02</td>
<td>EYUMAS2A</td>
<td>EYUCG01</td>
<td>CicsName in Both</td>
</tr>
</tbody>
</table>

Figure 12. A list of inconsistent scope errors
how CICSPlex SM validates resource definitions

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

Same Scopes
The target and related scope values are the same.

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

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

Attention: Once you exit a list of inconsistent scope errors, that list is deleted and cannot be recreated.
Chapter 14. 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 using the CREate action command from the RESGROUP view:
1. Display the RESGROUP view.
2. Issue the CREate primary or line action command.
3. Complete the Create Resgroup Definition panel.

The CREate action command 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
creating sets of resource definitions

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

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

**Note:** For a complete description of the RESGROUP view, see "Action commands" on page 157.

Once a resource group is defined to CICSPlex SM, there are several ways of adding resource definitions to it:

**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 RESGROUP field. RESGROUP is a standard field on the first 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 definitions**
You can add existing resource definitions to a group one at a time by using the ADD action command from a resource definition view:
1. Display the appropriate resource definition view.
2. Issue the ADD action command.
3. Identify the resource group on the Associate Resource to Resource Group panel.

**Adding multiple resource definitions**
You can add multiple resource definitions of a given type to a group by using the RES action command from the RESGROUP view:
1. Display the RESGROUP view.
2. Issue the RES action command with a resource type in the Restype field.
3. Select resource definitions from the Add Resource to RESGROUP list.

When you issue the RES action command, you can limit the list of resource definitions that are displayed by specifying:
- A version number in the ResVer field
- A generic resource name in the Pattern field

**Using a model resource group**
Once a resource group is defined and populated with resource definitions, you can use that group as a model to populate other resource groups. When you create a new resource group, you have the option of specifying:
- A resource group whose resource definitions are to be used as a model by the newly created group.
- Which definitions are to be copied from the model group:
  - The actual resource definitions (to create an additional set of resources)
  - The associations between the model group and existing resources
You can manage resource groups independently, but the real advantage comes in associating them with one or more resource descriptions or resource assignments.

Adding a resource definition to a resource group

You can use the ADD action command 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. So before you use the ADD action command from a resource definition view, you must:

- Use the CREate action command from the appropriate resource definition view to create the resource definition and add it to the data repository.
- Use the CREate action command from the RESGROUP view to create a resource group for the definition to be added to.

Figure 13 shows how the format of the panel produced when you issue the add primary or line action command (ADD) from a resource definition view.

Figure 13. Adding a resource definition to a resource group

Provide the following information, as appropriate:

**Resource Group**
The name of an existing resource group.

**Resource Type**
The type of resource definition being added (such as FILEDEF, for a file definition).

**Resource Name**
The name of an existing resource definition that is to be added to the specified resource group.

**Resource Version**
The version of the resource definition that is to be added, in the range 1 to 15.

Press Enter to add the resource definition to the specified resource group.

This is one way of adding resource definitions to resource groups; others include:

- Using the RESGROUP field on the create input panel for a resource definition to automatically add the definition to the group when it is created, as described in "Chapter 10. Creation of resource definitions" on page 23.
- Using the RES action from the RESGROUP view to add multiple definitions of a given resource type to a group, as described in "Adding resource definitions to a resource group" on page 368.
creating sets of resource definitions

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 38.

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.

You create resource assignments by using the CREate action command from the RASGNDEF view:

1. Display the RASGNDEF view.
2. Issue the CREate primary or line action command.
3. Complete the Create Resource Assignment panels.

The CREate action command adds the resource assignment to the CICSPlex SM data repository.

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

For a complete description of the RASGNDEF view, see "Chapter 58. RASGNDEF (resource assignments) view" on page 335. For information on using resource assignments to manage CICS resources, see "Controlling resources by resource assignment" on page 49.

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

You create resource descriptions by using the CREate action command from the RESDESC view:

1. Display the RESDESC view.
2. Issue the CREate primary or line action command.
3. Complete the Create Resource Description panels.

The CREate action command adds the resource description to the CICSPlex SM data repository.

For a complete description of the RESDESC view, see Chapter 62, RESDESC (resource descriptions) view on page 357. For information on using resource descriptions to manage CICS resources, see Controlling resources by resource description on page 43.
Chapter 15. Management of CICS resources using CICSPlex SM

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

- By resource descriptions alone; see [Controlling resources by resource description]
- By resource assignments in conjunction with resource descriptions; see [Controlling resources by resource assignment]

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

Controlling resources by resource description

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

1. Create resource groups and add resource definitions to them.
2. Create a resource description (or identify an existing one) that you want to associate the resource groups with.
   Use the ResGroup Scope 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 action command from the RESGROUP 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 CICSpelix.
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 ResGroup, Target, and Related 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 action command from the RASGNDEF 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 CICSp lex. If the resources are defined to CICSPlex SM, Business Application Services can locate them and manage them regardless of what platform or release of CICS they are defined to.

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

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

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

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

**Note:** A logical scope name is not a valid scope for resources that cannot be defined by BAS (such as system dump codes). However, a logical scope name is valid for CICSRGN and MAS views, which will display the regions that may contain resources in the named logical scope.
using logical scopes
Chapter 16. Accessing BAS administration views

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

- Issuing the MENU ADMBAS command and selecting the view from the menu that is displayed. (The menu is shown in Figure 14.)
- Issuing the appropriate business application services view command.
- Initiating a hyperlink from one view to another by placing the cursor on a hyperlink field and pressing Enter.

Note: You need to use the CICSSYS view, which is part of the Topology component, to specify resource installation requirements. See "Chapter 20 Automatic resource installation" on page 73. The CICSSYS view is described in the CICSPlex System Manager Administration book.

For additional information about accessing views, see the CICSPlex System Manager User Interface Guide.

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

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

Common administration actions

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

**ADD** To add an association between two definitions you can:
- Issue the ADD primary action command with the name of one of the definitions.
common administration actions

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

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

BROwse

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

CREate

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

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

MAP

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

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

REMove

To remove a definition or an association between two definitions from the data repository you can:
- Issue the REMove primary action command with the name of the definition or association you want to remove.
- Enter the REM line action command next to the name of the definition or association you want to remove.

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

UPDate

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

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

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

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

For more information about action commands, see [CICSPlex System Manager User Interface Guide](#).
common administration actions
Chapter 17. 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 18. Installation of CICS resources

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

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

Notes:
1. If you are using BAS to automatically install resources when a CICS system initializes, you should specify the CICSPlex SM system parameter MASPLTWAIT(YES) for that system. This parameter suspends PLT processing until all CICS resources are installed and the MAS is fully initialized. For information on specifying this parameter, see the CICS Transaction Server for z/OS Installation Guide.
2. There are special considerations when arranging for activation of a DB2 connection via a DB2CDEF definition. For details, see the CICS Transaction Server for z/OS Installation Guide.
3. It is not possible to use BAS to install an MQSeries connection before the CICSPlex SM environment has been initialised.
4. It is not possible to install journal definitions (JRNLDEF).
5. It is not possible to install key file segment definitions (FSEGDEF). They are available only for systems running CICS for OS/2, which does not support the EXEC CICS CREATE command.
6. Enqueue models forming nested generic enqueue names must be installed either in the disabled state or in order, from the most specific (for example, ABCD) to the least specific (for example, AB*). You can install disabled enqueue models in any order, but you must enable them in order from most specific to least specific. For more information, see "Installing BAS enqueue model definitions" on page 159.
7. 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.

When you use the install line action command (INS) from the RESGROUP view, a series of input panels is produced.
installing CICS resources

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

Figure 15 illustrates the first panel for installing a resource group.

<table>
<thead>
<tr>
<th>COMMAND ====&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Name</td>
</tr>
<tr>
<td>Assignment</td>
</tr>
<tr>
<td>Type</td>
</tr>
<tr>
<td>Ref Assignment</td>
</tr>
<tr>
<td>Target Scope</td>
</tr>
<tr>
<td>Related Scope</td>
</tr>
<tr>
<td>Usage</td>
</tr>
<tr>
<td>Mode</td>
</tr>
<tr>
<td>Override</td>
</tr>
<tr>
<td>Notify</td>
</tr>
<tr>
<td>State Check</td>
</tr>
<tr>
<td>Force Install</td>
</tr>
</tbody>
</table>

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

Figure 15. Installing a resource group - Page 1

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

Provide the following information, as appropriate:

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

If you specify an assignment name, the following fields are optional on this panel:
  Target Scope
  Related Scope
  Usage
  Mode
  Override

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

Type
Specify the type of resources to be installed. For a list of valid resource types, see Figure 3 on page 15.
You cannot dynamically install the following types of resource definition:
- File key segment definitions (FSEGDEF)
- Journal definitions (JRNLDENV)
- Session definitions (SESSDEF).

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

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

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

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

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

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

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

**Notes:**
1. When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the Target Scope and Related Scope fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.

2. Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue’s attributes is always a local resource. Therefore, when you install a temporary storage model definition, the Usage parameter must always specify LOCAL. See "Installing BAS temporary storage model definitions" on page 315. For a description of the TSMDEF Remote system attribute, see "Temporary storage model definition attributes" on page 315.
installing CICS resources

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

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

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

**DYNAM**
Transactions are processed by the dynamic routing program.

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

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

**Transient data queues (TDQDEF)**
You can identify the type of transient data queue to be installed:

**EXTRA**
Extrapartition TDQ.

**IND**
Indirect TDQ.

**INTRA**
Intrapartition TDQ.

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

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

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

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

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

**RELATED**
Apply the override values to the Related Scope only.

**TARGET**
Apply the override values to the Target Scope only.

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

**NO**
No checking is performed.
installing CICS resources

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

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

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

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

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

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

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSPlex SM then checks the version and CHANGETIME values of the installed resource to see if they are the same as for the one being installed. If all of these conditions are met, CICSPlex SM considers the new resource a duplicate and does not install it.

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

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

*Figure 16 on page 64* shows the format of the second panel for installing a resource group.
installing CICS resources

COMMAND ===>

Group Name  EYUBAG01  Resource Group

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

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

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

Figure 16. Installing a resource group - Page 2

Provide the following information, as appropriate:

**Filter string expression**

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

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

**Filter Expression**

```
logic_expr .
```

**logic_expr:**

```
AND/OR

NOT logic_expr
```

**attr_expr:**

```
attr opervalue
```

where:

**attr**

Is the name of an attribute in the resource table for the specified resource. You can name the same attribute more than once in a filter expression.
oper
Is one of the following comparison operators:
<     Less than
<=    Less than or equal to
=     Equal to
>=    Greater than or equal to
>     Greater than
~=    Not equal to

value
Is the value for which the attribute is being tested. The value must be a valid one for the attribute.
If the attribute accepts character data, this value can be generic. Generic values can contain:
• An asterisk (*), to represent any number of characters, including zero. The asterisk must be the last or only character in the specified value. For example:
  TRANID=PAY*
• A plus sign (+), to represent a single character. A + can appear in one or more positions in the specified value. For example:
  TRANID=PAY++96
If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes. For example:
  TERMID='Z AB'
To include a single quote or apostrophe in a value, you must repeat the character, like this:
  DESCRIPTION='October''s Payroll'

AND/OR
Combines attribute expressions into compound logic expressions using the logical operators AND and OR, like this:
attr_expr AND attr_expr.
Filter expressions are evaluated from left to right. You can use parentheses to vary the meaning of a filter expression. For example, this expression:
attr_expr AND (attr_expr OR attr_expr).
has a different meaning than this one:
(attr_expr AND attr_expr) OR attr_expr.

NOT
Negates one or more attribute expressions.
You can negate a single attribute expression, like this:
NOT attr_expr
You can also negate multiple attribute expressions or even a whole filter expression, like this:
NOT (attr_expr OR attr_expr).
Note that you must place parentheses around the attribute expressions (or the filter expression) to be negated.
To see a list of the resource attributes, type FILTER in the COMMAND field and press Enter.

**Override string expression**

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

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

**Override Expression**

\[
\text{attr}=\text{value}
\]

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:
    \[
    \text{DESCRIPTION}'=\text{'Payroll.OCT'}
    \]
  - To include a single quote or apostrophe in a value, you must repeat the character, like this:
    \[
    \text{DESCRIPTION}'=\text{'October''s Payroll'}
    \]

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

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

**Note:** For information on what happens if your installation request does not complete successfully, see [“Handling dynamic installation errors” on page 81](#).  

### Installing resource descriptions

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

- Resources in groups that are directly associated with the description (via RESINDSC) are installed in the CICS systems named in the ResGroup Scope field of the description.
- Resources in groups associated with the description by way of a resource assignment (RASGNDEF) are installed in the Target and Related Scope systems. These CICS systems can be identified in the resource assignment, the resource description, or the association between them (RASINDSC).
You can also replace the resources associated with an installed resource description with the resources associated with a new description. When you replace a resource description, CICSPlex SM:

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

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

To install a resource description:

1. Type INS alongside the resource description you wish to install. The panel illustrated in Figure 17 is displayed:

   ![Figure 17. Installing a resource description](image)

   Provide the following information, as appropriate:

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

   - **NO** No checking is performed.
   - **FULL** Perform both INACTIVE and RELEASE checking.

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

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

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

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

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

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

NO Do not force the installation of resources.

YES Force the installation of resources.

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSPlex SM then checks the version and CHANGETIME values of the installed resource to see if they are the same as for the one being installed. If all of these conditions are met, CICSPlex SM considers the new resource a duplicate and does not install it.

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

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

Note: For information on what happens if your installation request does not complete successfully, see "Handling dynamic installation errors" on page 81.

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

Installing system links

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

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

- Automatically at CICS initialization.
  This can be done by using the Install Resources field on the CICSSYS definition, as described in [CICSPlex System Manager Administration]. If you enable automatic resource installation for a CICS system, all the system links defined for that system are installed at initialization.
- Dynamically while a CICS system is active.
  This can be done by using the INStall action command described here. The install action command is useful for installing individual system links that were not installed at initialization.

Figure 18 on page 69 shows the format of the panel produced when you use the install (INS) line action command from the SYSLINK view.
Providing the following information, as appropriate:

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

- **NO** No checking is performed.
- **FULL** Perform both INACTIVE and RELEASE checking.
- **INACTIVE** Check for CICS systems in the target scope that are not currently active.
- **RELEASE** Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

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

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

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

- **NO** Do not force the installation of resources.
- **YES** Force the installation of resources.

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed system link in the CICS system. If so, CICSPlex SM then checks the version and CHANGETIME values of the installed system link to see if they are the same as for the one being installed. If all of these conditions are met, CICSPlex SM considers the new system link a duplicate and does not install it.

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

Figure 18. Installing a CICS system link

Press ENTER to install SYSLINK.
Type END or CANCEL to cancel without installing.
Press Enter to install the system link in active CICS systems.
Chapter 19. Deciding where resources should be installed

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

To determine what resources to install and where to install them, CICSPlex SM checks the Target Scope, Related Scope, and Resource Group values in your resource assignments, resource descriptions, and the associations between them. The information in these definitions is processed as follows:

1. Resource assignments (RASGNDEF) take precedence. Any values that you explicitly define in a RASGNDEF are used, regardless of any other values you may specify.

2. For any values that are not found in a RASGNDEF definition, CICSPlex SM checks the resource assignment-to-description association (RASINDSC) and uses the values it finds there.

3. For any values that are not found in either the RASGNDEF or the RASINDSC definition, CICSPlex SM checks the resource description (RESDESC) and uses those values. The RESDESC 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 RESDESC 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 RASGNDEF or RASINDSC definition.
Chapter 20. Automatic resource installation

The automatic installation of resources in a CICS system is controlled by:
- The CICS system definition, which tells CICSPlex SM under what conditions resources should be installed and what to do if installation errors occur.
- One or more resource descriptions and, optionally, resource assignments, which tell CICSPlex SM what resources to install and how to install them.

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

Installing resources automatically

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

1. Update the CICS system definition (CICSSYS) to indicate:
   - Whether resources should be installed every time the system initializes, only during a COLD or warm (AUTO) start, or not at all.
     
     **Note:** CICSPlex SM handles the initial start of a CICS system in the same way as it does a cold start. An emergency restart of CICS is handled in the same way as a warm start.
   - How CICSPlex SM should handle any resource installation errors that may occur.

2. Create one or more resource descriptions (RESDESC) and specify:
   - YES in the Auto Install field to enable automatic resource installation.
   - The groups of resources to be installed.
     
     If the resource groups are directly associated with a resource description (via RESINDSC), the resources are installed in the CICS systems named in the ResGroup Scope field of the description.

3. Optionally, associate the resource descriptions with resource assignments (RASGNDEF) to select specific resources and provide usage information and override values.
   
   In this case, the resources are installed in the CICS systems named in the Target Scope and Related Scope fields of the resource assignment, resource description, or the association between them (RASINDSC).

For BAS autoinstall in a CICS/ESA RMAS, user applications that require the resources to be installed must be deferred until BAS resource installation has completed. This is indicated by the message EYUBN009I, Resource creation processing complete, in the RMAS.

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

Performance considerations for assigned resource descriptions

Each time a BAS resource definition is associated with a target CICS system through a RESDESC, an entry for that installation assignment is made in the resource set table which is an internal table within the BAS storage cache. Take the example of a data repository with just one RESDESC defined, which has 50 PROGDEFs associated with it in migration mode. When the target scope of the RESDESC is assigned to a single MAS, the resource set table will be initialized.
installing resources automatically

with 50 entries — one entry for each PROGDEF instance at the target MAS. If the RESDESC target scope is changed to a CICS system group comprising 20 MASes, the number of entries in the resource set table will increase to 1000 (50 resource definitions times 20 target regions). The resource set table is kept in contiguous storage to optimize performance. It follows that, because the BAS storage cache has a finite size, there is a limit on the number of installation assignments that can be made with RESDESCs within a CICSPlex. The limit will vary from installation to installation but the assignment of more than 150,000 resource definitions across the whole of the CICSPlex may lead to performance problems. If a CICSPlex is expected to exceed that limit, we advise you to consider reducing the number of static definitions by using autoinstall services.

Handling automatic installation errors

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

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

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

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

  CONTINUE
  Continue installing other resources.

  IMMEDIATE
  Shut down the CICS system immediately.

  NORMAL
  Shut down the CICS system normally.

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

  TERMINATE
  Terminate the resource installation process. No more resources are installed. Any resources that were successfully installed are not removed.
Chapter 21. Dynamic resource installation

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

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

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

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

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

Note: The FSEGDEF and SESSDEF views do not support the install action command.

CICSPlex SM attempts to install all of the resources you identify, but sometimes conditions in the CICSpex 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. Display an information panel containing the resource you wish to install and type INS against it. A panel like the one in Figure 19 on page 76 is displayed:
installing resources dynamically

2. Provide details of the CICS systems where the resources are to be installed (see "Providing CICS system details").

3. Provide any override expressions (see "Providing override expressions" on page 80).

4. Press the Enter key to action any pre-installation checks and install the resource definition in the specified CICS systems.

5. Handle any errors (see "Handling dynamic installation errors" on page 81).

   **Note:** For information on what happens if your installation request does not complete successfully, see "Handling dynamic installation errors" on page 81.

**Providing CICS system details**

Provide the following information, as appropriate:

**Target Scope**

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

**Related Scope**

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

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

**Usage**

Specify how the resource will be used:
installing resources dynamically

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

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

- FILEDEF
- PROGDEF
- TDQDEF
- TRANDEF

**Notes:**
1. When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the Target Scope and Related Scope fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.
2. Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue’s attributes is always a local resource. Therefore, when you install a temporary storage model definition, the Usage parameter must always specify LOCAL. See "Installing BAS temporary storage model definitions" on page 315. For a description of the TSMDEF Remote system attribute, see "Temporary storage model definition attributes" on page 315.

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

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

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

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

**DYNAM**
Transactions are processed by the dynamic routing program.

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

Transient data queues (TDQDEF)

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

**EXTRA**
Extrapartition TDQ

**IND**
Indirect TDQ

**INTRA**
Intrapartition TDQ

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

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

Override

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

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

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

**RELATED**
Apply the override values to the Related Scope only.

**TARGET**
Apply the override values to the Target Scope only.

Ref Assign

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

Note: The Ref Assign field appears only when you are installing a connection from the CONNDEF view.

Specifying pre-installation checks

When you install resources into CICS systems dynamically, you can ask CICSplex SM to perform certain types of checks before it attempts to install the resources.

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

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

Notify

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

**Release**
CICSplex SM checks that the CICS system is at the appropriate
installing resources dynamically

level for the resource being installed. 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 CICSpex, and checks that the CICS system is at the appropriate level for the resource being installed. If any of the CICS systems are not active, CICSPlex SM returns a list of inactive systems. If any of the CICS systems are running a release of CICS that does not support EXEC CICS CREATE, CICSPlex SM returns a list of systems where resources cannot be installed.

No No consistent state checking is performed.

Requesting a consistent state check

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

State check

NO CICSPlex SM does not provide details on resource that are not installable because of their status before issuing an EXEC CICS CREATE command.

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

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

Note: For more information on how resource installation errors are handled, see "Handling dynamic installation errors" on page 81.

Forcing the installation of a resource

Before installing a resource, CICSPlex SM checks to see if the same resource already exists in the CICS system and if CICSPlex SM itself was responsible for installing it. If so, CICSPlex SM then checks the version of the installed resource and the time at which it was last updated. If these values are the same for the currently installed resource and the one being installed, 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 are supplying override values as part of the installation request. To do this, you can use the Force Install option when you dynamically install resources. The Force Install option is available when you:

• Install an individual resource
• Install a resource group

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- Install a resource description
- Replace a resource description

**Force Install**

<table>
<thead>
<tr>
<th>Yes</th>
<th>Install the specified resource unconditionally, without checking whether or not it is a duplicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Do not install the duplicate resource.</td>
</tr>
</tbody>
</table>

By default, Force Install is set to No; CICSPlex SM does not normally force the installation of a resource it believes to be a duplicate. However, if you specify YES for Force Install, you can bypass this duplicate resource checking. CICSPlex SM will install all of the specified resources unconditionally.

**Providing override expressions**

An override expression identifies attributes of the specified resource whose values are to be overridden when it is installed in one or more of the specified scopes. (The value in the Override field determines which scope the override values are applied to.)

**Override string expression**

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

```
attr=value
```

where:

- **attr**
  - Is the name of a modifiable attribute for the resource.

- **value**
  - Is the value to which you want the attribute set. The following restrictions apply:
    - The value must be a valid one for the attribute.
    - If the value contains imbedded blanks or special characters (such as periods, commas, or equal signs), the entire value string must be enclosed in single quotes, like this:
      ```
      DESCRIPTION='Payroll.OCT'
      ```
    - To include a single quote or apostrophe in a value, you must repeat the character, like this:
      ```
      DESCRIPTION='October''s Payroll'
      ```

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

When you ask CICSPlex SM to install one or more resources dynamically by issuing the install action (INS) from an end-user interface view, an input panel is displayed. After you provide the required information and press Enter, the input panel remains displayed while CICSPlex SM attempts to install the selected resources into the appropriate CICS systems. Note that the installation of resources into various CICS systems can take place in parallel.

When the installation process is complete, if any of the resources could not be installed, a panel like the one shown in Figure 20 is displayed.

1. To display a list of the errors encountered by a CICS system, type an S (for Select) to the left of the system name. You can select more than one CICS system at a time.
2. Press Enter. The list of installation errors for the first CICS system you selected is displayed. Figure 21 shows a sample list of resource installation errors:
3. Note the errors. Either press Enter, or issue the END or CANCEL command. The list of errors for the next CICS system you selected is displayed. When the errors for all the CICS systems you selected have been displayed, you are returned to the view where you entered the install command.
4. Correct the installation errors and try the installation process again.

Figure 20. A list of CICS systems with installation errors

The Systems with Errors panel indicates one or more errors occurred while CICSPlex SM was attempting to install resources in the specified CICS systems.

1. To display a list of the errors encountered by a CICS system, type an S (for Select) to the left of the system name. You can select more than one CICS system at a time.
2. Press Enter. The list of installation errors for the first CICS system you selected is displayed. Figure 21 shows a sample list of resource installation errors:
3. Note the errors. Either press Enter, or issue the END or CANCEL command. The list of errors for the next CICS system you selected is displayed. When the errors for all the CICS systems you selected have been displayed, you are returned to the view where you entered the install command.
4. Correct the installation errors and try the installation process again.

Figure 21. A list of resource installation errors
The Resource Install Errors panel lists the resources that could not be installed in the specified CICS system. The following information is provided for each resource:

**Resource Name**
The name of the resource that could not be installed.

**Res Ver**
The version of the resource that could not be installed.

**Resource Type**
The type of resource that could not be installed.

**Error Code**
A CICSPlex SM error code that describes the reason the resource could not be installed. The error code will be one of the following:

- **Complete Failed**
  An EXEC CICS CREATE COMPLETE request for a connection, session, or terminal failed. The CICS EIBFN and RESP values are returned with this error code.

- **Connection Failed**
  An attempt to install the specified connection failed because the associated session definition could not be found.

- **Discard Failure**
  An EXEC CICS CREATE DISCARD request for a connection, session, or terminal failed. The CICS EIBFN and RESP values are returned with this error code.

- **Install Failure**
  Either CICSPlex SM did not perform a resource state check before issuing the EXEC CICS CREATE command or the state check process failed. The resource install request was rejected by CICS. The CICS EIBFN and RESP values are returned with this error code.

- **MAS Failure**
  An attempt to install the specified resource in the specified system failed because an unexpected condition was encountered. Refer to the specific CICS system job jlog and CMAS EYULOG for further information.

- **Not Authorized**
  The external security manager (ESM) determined that the user who requested the install action is not authorized to perform the specified installation.

- **Not Forced**
  An attempt to install the specified resource in the specified CICS system failed because the same resource already exists in the CICS system and Force Install is set to NO.

- **Not Supported**
  An attempt to install the specified resource in the specified CICS system failed because CICS does not support the dynamic installation of that resource. Journals cannot be installed dynamically. Journal models and transient data queues can be installed only in systems running the CICS TS for OS/390.
installing resources dynamically

Status Failure
CICSPlex SM performed a resource state check and determined that the specified resource could not be installed in the specified CICS system.

System State
The specified CICS system either is not active or does not support the EXEC CICS CREATE command.

EIBFN
The code that identifies the last CICS command issued by the task. For a list of valid codes, see CICS Application Programming Reference or CICS System Programming Reference.

Resp1
The number corresponding to the condition specified in the Error code field.

Resp2 Hi
The number in the high-order EIBRESP2 halfword (see Note).

Resp2 Lo
The error number in the low-order EIBRESP2 halfword (see Note).

Note: The fullword EIBRESP2 field is regarded as a structure containing two halfwords. The low-order halfword (Resp2 Lo) always contains an error number. The high-order halfword (Resp2 Hi) may contain another number to help you identify the error. The EXEC CICS CREATE RESP2 values and their meanings can be found in CICS System Programming Reference.
installing resources dynamically
Chapter 22. 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 CICSTS21.CPSM.SEYUAUTH library. You must run EYU9BCSD on a z/OS system. You can use the program to extract records from CSD files on the following versions of CICS:

- CICS Transaction Server for z/OS Version 2 Release 1
- CICS Transaction Server for OS/390 1.3
- CICS Transaction Server for OS/390 1.2
- CICS Transaction Server for OS/390 1.1
- CICS/ESA 4.1
- CICS/ESA 3.3
- CICS for OS/2® 3.1
- CICS for OS/2 3.0

For each CSD record identified in your input file, EYU9BCSD generates an equivalent CICSPlex SM resource definition record. For example, a CSD PROGRAM record is used to build a PROGDEF resource definition. Each field in the CSD record is used to assign the appropriate attribute value to the resource definition.

In addition to generating individual resource definitions, EYU9BCSD also generates CICSPlex SM resource group definitions (RESGROUP). It uses the RESGROUP keyword of the xxxxDEF resource definitions to maintain the relationship to the resource group. That means when a PROGDEF resource definition is generated from a CSD PROGRAM record, it can be automatically associated with an appropriate resource group. You can choose to create a resource group for each CSD group presented to the exit, using the existing GROUP names. Alternatively, you can name a single resource group to be created from all the CSD groups being processed by EYU9BCSD.

Output from EYU9BCSD is in the form of batched repository-update facility CREATE commands. When you submit those commands, the batched repository-update facility creates the appropriate resource definition records in the data repository.

Note: EYU9BCSD will not build BATCHREP output for CSD resources stored in the CSD groups with names beginning with either DFH or EYU. It is not intended that these types of resources should be defined using BAS. If you need to migrate sample definitions, you should copy the resources to a group with a name that does not start with DFH or EYU.
Creating input to the extract routine EYU9BCSD

The input file for the CICSPlex SM extract routine EYU9BCSD consists of a series of control statements. These control statements describe the CSD records you want to extract and the resource groups with which they should be associated.

The input file must adhere to the following requirements:
- The file must have a fixed logical record length of 80.
- 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, ENOMODEL, FILE, JOURNAL,
- JOURNALMODEL, LSRPOOL, MAPSET, PARTITIONSET,
- PARTNER, PROCESSTYPE, PROFILE, PROGRAM,
- REQUESTMODEL, SESSIONS, TCPIPSERVICE, TDQUEUE,
- TERMINAL, TRANCLASS, TRANSACTION, TSMODEL,
- TYPETERM
You can specify multiple `objtype` statements in a single input file, but each one must represent a different resource type. Only one `objtype` statement of a given resource type is allowed per input file.

`resname` is the specific or generic name of a CSD resource of the specified type.

For example, `PROGRAM(*)` would process all the PROGRAM records in the CSD presented to EYU9BCSD. `PROGRAM(AB+C*)` would process only those PROGRAM records that match the generic pattern. Note that the asterisk (*) is interpreted according to CICSPlex SM rules for generics, not CEDA rules.

**INQUOTES(NO|YES)**

Identifies whether or not you want field values enclosed in quotes on the output data set. You may need to use this control statement if you have any data on your CSD that contains unbalanced parentheses. If you omit this keyword, the default value of NO is assumed.

**NO**

The values of parameters are not enclosed in quotes on the output data set. This setting is perfectly adequate for input to the batched repository-update facility, but you might encounter problems if the parameter values contain unbalanced parentheses.

Note that, if you specify INQUOTES(NO), the EYU9BCSD output can be used as input to any release of the CICSPlex SM batched repository-update facility.

**YES**

All values of parameters are enclosed in quotes on the output data set. The CICSPlex SM batched repository-update facility terminates the parameter value at the final quote, not at an embedded parenthesis.

Note that, if you specify INQUOTES(YES), the EYU9BCSD output can be used only with the CICSPlex SM batched repository-update facility at CICS Transaction Server for OS/390 Version 1 Release 3 and later. The EYU9BCSD output is not compatible with, and cannot be used as input to, the batched repository-update facility supplied with earlier releases of CICSPlex SM.

For example, suppose a DESCRIPTION field contains the value:

1) Describe Resource

If you specify INQUOTES(NO), which is the default, the EXTRACT routine will produce the following statement in the output data set:

`DESCRIPTION(1) Describe Resource)`

The CICSPlex SM batched repository-update facility interprets this as a DESCRIPTION field containing the value 1, followed by two unrecognizable keywords.

If you specify INQUOTES(YES), EYU9BCSD places quotes around the field value. The output data set would contain the statement:

`DESCRIPTION('1) Describe Resource')`

This statement is interpreted correctly by the CICSPlex SM batched repository-update facility.
Submitting a job to EYU9BCSD

To submit a job to EYU9BCSD, you must specify the following DFHCSDUP EXTRACT command:

```
EXtract List(listname) | Group(groupname)
USERprogram(EYU9BCSD) OBJECTS
```

Note the following requirements:

- EYU9BCSD must be invoked from the USERPROGRAM keyword; it cannot be called on the entry linkage to DFHCSDUP using the EXITS parameter.
- The OBJECTS keyword is required.

Figure 22 is an example of the JCL that you can use to run EYU9BCSD. This sample JCL is supplied in the member EYUJCLEX in the CICSTS13.CPSM.SEYUSAMP library.

```
//*------------------------------------------------------------
//* Delete the extract output file for a rerun of this job
//*------------------------------------------------------------
//BR14OUT EXEC PGM=IEFBR14
//EYUOUT DD DISP=(MOD,DELETE,DELETE),
// DSN=cpsm.index.EYUOUT.group_name,
// SPACE=(TRK,(1,1)),
// UNIT=SYSDA
```

Figure 22. Sample JCL to run EYU9BCSD for a CSD group list (Part 1 of 3)
submitting a job to EYU9BCSD

Figure 22. Sample JCL to run EYU9BCSD for a CSD group list (Part 2 of 3)
submitting a job to EYU9BCSD

```cnullan
//*------------------------------------------------------------
//* List EYUOUT to view errors
//*------------------------------------------------------------
LISTOUT EXEC PGM=IEBGENER
/SYSUT1 DD DISP=OLD,DSN=cpsm.index.EYUOUT.group_name
/SYSUT2 DD SYSOUT=*  
/SYSPRINT DD SYSOUT=*  
/SYSIN DD DUMMY
```

Figure 22. Sample JCL to run EYU9BCSD for a CSD group list (Part 3 of 3)

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.

**DFHCSDF** 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.

**EYIN** 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 23.

```c
/*
 RESGROUP(group_name)
 RESINGRP(CSDGROUP)
 PROCESTYPE(*)
 TSMODEL(*)
 REQUESTMODEL(*)
 */

CONTEXT EYUPLX01;
CREATE RESGROUP RESGROUP(group_name)
  DESCRIPTION( )
 ;
CREATE PROCDEF NAME(CICSPRTY)
  DESCRIPTION(Sample CBTS Process type )
  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 23. 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.
output from EYU9BCSD

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 23 on page 91.

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 System Manager Administration] book.
Chapter 23. Establishing CICSplex connectivity

This example creates the pairs of connection and session definitions that are required to connect the CICS systems in the Starter Set CICSplex, EYUPLX01.

1. If the current context isn’t EYUPLX01, issue the command CON EYUPLX01.
2. Create the first ISC connection definition.
   a. From the current view, issue the command CONNDEF.
   b. From the CONNDEF view, issue the command CRE.
   c. Complete the first Create Connection Definition panel as shown here:

```
------------ Create Connection Definition for EYUPLX01 Page 1 ------------------
COMMAND ===>
Name ===> C001 Version ===> 0
Description ===> ISC Connection
REGROUP ===> 
User Data ===> 
AccessMethod ===> VTAM Access Method (VTAM, INDIRECT, IRC, XM, NETBIOS, TCPIP)
Attachsec ===> LOCAL Attach-time security (LOCAL, IDENTIFY, MIXIDPE, PERSISTENT, VERIFY)
AutoConnect ===> YES Autoconnect sessions to VTAM (NO, ALL, YES)
ConnType ===> NOTAPPLIC Nature of connection (GENERIC, SPECIFIC APPC, NETBIOS, TCPIP, NOTAPPLIC)
Datastream ===> USER Data stream type (USER, LMS, SCS, STRFIELD, 3270)
IndirectSys ===> Intermediate system name
Inservice ===> YES Connection status (YES, NO)
MaxQueTime ===> NO Maximum queue time (NO, 0-9999, blank)
NetName ===> Network name
Protocol ===> APPC Protocol (APPC, EXCI, LU61, NOTAPPLIC)

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

   d. Issue the DOWN command and complete the second Create Connection Definition panel as shown here:

```
------------ Create Connection Definition for EYUPLX01 Page 2 ------------------
COMMAND ===>
Name ===> C001 Version ===> 0
PSRecovery ===> SYSDEFAULT Persistent system recovery (NONE, SYSDEFAULT, N/A)
QueueLimit ===> NO Queue limit (NO, 0-9999, blank)
RecordFormat ===> U Record format (U, VB)
RemoteName ===> APPC connection name
RemoteSysNet ===> Remote system name
RemoteSystem ===> Intercommunication link name
SecurityName ===> Security name for remote system
SingleSess ===> NO APPC term on single session (YES, NO, N/A)
XlnAction ===> KEEP Logname receive action (KEEP, FORCE, N/A)
BindPassword ===> Bind security password
BindSecurity ===> NO Bind security (YES, NO)
Usedfltuser ===> N/A Use default user (YES, NO, N/A)

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

e. Press Enter. The ISC connection definition is created and the CONNDEF view is redisplayed:

```
26FEB2001 17:15:06 ---------- INFORMATION DISPLAY -----------------------
COMMAND ===> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ==>-
W1 ==CONNDEF========EYUPLX01=EYUPLX01==26FEB2001==17:15:06=CPSM======1==
CMD Name Ver Created Changed Description
--- ------- --- ------------- ------------- -------------------------
C001 1 1/17/97 17:06 1/17/97 17:06 ISC Connection
```

**Note:** This example does not make use of the third Create Connection Definition panel, which applies only to systems running CICS for OS/2.

3. Create the associated session definition.
   a. From the CONNDEF view, issue the command SESSDEF.
   b. From the SESSDEF view, issue the command CRE.
   c. Complete the first Create Session Definition panel as shown here:

```
----------- Create Session Definition for EYUPLX01 Page 1 ----------------------
COMMAND ===> Name ===> S001 Version ===> 0
Description ===> ISC Session
RESGROUP ===> User Data ===>
Protocol ===> APPC Intercommunication link protocol
            (APPC, EXCI, LU61, NOTAPPLIC)
Maximum ===> 4 , Maximum sessions (0-999, blank)
Recv/Send count ===> , Receive, Send counts (1-999, blank)
Recv/Send prfx ===> , Receive, Send prefixes
Recv/Send size ===> 4096 , Max Recv, Send VTAM RU size (1-30720, blank)
Modename ===> VTAM logmode name
Connection ===> C001 Connection name
Autoconnect ===> YES Session established (NO, YES, ALL)
NetNameQ ===> Name known to remote IMS system
```

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

d. Issue the DOWN command and complete the second Create Session Definition panel as shown here:
e. Press Enter. The ISC session definition is created and the SESSDEF view is redisplayed:

```
26FEB2001 17:15:17 ---------- INFORMATION DISPLAY -----------------------
COMMAND ===>
SCROLL ===>
PAGE
CURR WIN ===>
1
ALT WIN ===>
W1 ==SESSDEF========EYUPLX01=EYUPLX01==26FEB2001==17:15:17=CPSM======1==
CMD Name Ver Created Changed Description
--- ------- --- ------------- ------------- -------------------------
S001 1 1/17/97 17:12 1/17/97 17:12 ISC Session
```

Note: This example does not make use of the third Create Session Definition panel, which applies only to systems running CICS/MVS 2.1.2.

4. Define the link between the relevant CICS systems.
   a. From the SESSDEF view, issue the command SYSLINK.
   b. From the SYSLINK view, issue the command CRE.
   c. Complete the Create System Link panel as shown here:

```
----------- Create System Link for EYUPLX01 ------------------------
COMMAND ===>

Primary System ==> EYUMAS1A
Secondary System ==> EYUMAS1B

ConnDef Name ==> C001 Version ==> 1
SessDef Name ==> S001 Version ==> 1

Press ENTER to create SYSLINK.
Type END or CANCEL to cancel without creating.
```

d. Press Enter. The ISC link between EYUMAS1A and EYUMAS1B is created and the SYSLINK view is redisplayed:
establishing CICSpex connectivity

5. Reuse the existing ISC link definition to define the links between other CICS systems.
   a. In the SYSLINK view, tab to the entry for EYUMAS1A and issue the CRE command in the line command field.
      The Create System Link panel is displayed, showing the values you entered when creating the link between EYUMAS1A and EYUMAS1B.
   b. Update the Primary System field as shown here to create an ISC link between EYUMAS4A and EYUMAS1B:

   ------------------ Create System Link for EYUPLX01 ------------------
   COMMAND ===>
   Primary System ==> EYUMAS4A
   Secondary System ==> EYUMAS1B
   ConnDef Name ==> C001 Version ==> 1
   SessDef Name ==> S001 Version ==> 1

   Press ENTER to create SYSLINK.
   Type END or CANCEL to cancel without creating.

   c. Press Enter. The ISC link between EYUMAS4A and EYUMAS1B is created and the SYSLINK view is redisplayed.
      Repeat this step to create ISC links between other CICS systems in the CICSpex.
Chapter 24. Defining resources for an application

This example creates the resource definitions that are required for a Workload Manager (WLM) application. 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. If the current context isn’t EYUPLX01, issue the command CON EYUPLX01.

2. Create a resource group definition.
   a. From the current view, issue the command RESGROUP.
   b. From the RESGROUP view, issue the command CRE.
   c. Complete the Create Resgroup Definition panel as shown here:

```
-------------- Create Resgroup Definition for EYUPLX01 -------------------
COMMAND ===>  
Name ===> EYUBAG01
Description ===> SSET - WLM IVP Application
Model Group ===> 
Copy Resources ===> NO (ASSOCIATIONS, MEMBERS, NO)
Press ENTER to create RESGROUP.
Type END or CANCEL to cancel without creating.
```
   d. Press Enter. The resource group EYUBAG01 is created and the RESGROUP 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.

3. Create the transaction definition.
   a. From the RESGROUP view, issue the command TRANDEF.
   b. From the TRANDEF view, issue the command CRE.
   c. Complete the first Create Transaction Definition panel as shown here:

```
------- Create Transaction Definition for EYUPLX01 Page 1 ----------------
COMMAND ===>  
Name ===> ETVP Version ===> 0
Description ===> SSET - Workload IVP Definition
RESGROUP ===> EYUBAG01
User Data ===> 
Program ===> EYUWLMVP Name program to process transaction
Twsizex ===> 0 Transaction work area size (0-32767, blank)
Profile ===> DFHCICST Profile definition name
Partitionset ===> Application partition set (name, KEEP, OWN)
Status ===> ENABLED Transaction status (ENABLED, DISABLED)
Taskdataloc ===> BELOW Task storage location (BELOW, ANY)
Taskdatakey ===> USER Task storage key (USER, CICS)
Storageclear ===> NO Clear task life-time storage (YES, NO)
Runaway ===> SYSTEM Max tasktime (SYSTEM, 0-2700000, blank)
Shutdown ===> DISABLED Status during shutdown (DISABLED, ENABLED)
Isolate ===> YES Isolate user storage (YES, NO)
Press ENTER to create TRANDEF.
Enter UP or DOWN to view other screens.
Type END or CANCEL to cancel without creating.
```
Because you specified EYUBAG01 in the RESGROUP field, CICSPlex SM automatically associates this new transaction definition with that resource group.

d. Issue the DOWN command and complete the second Create Transaction Definition panel as shown here:

```
------- Create Transaction Definition for EYUPLX01 Page 2 ----------------

COMMAND ==>  
Name  ==> ETVP  Version ==> 0  
Dynamic ==> YES  Dynamic route to remote region (NO, YES)  
Remotename ==> ETVP  Transaction name in remote system  
Remote Sysid ==> IAS3A  Connection name to remote CICS region  
Trprof ==> DFHCICSS  Transaction routing profile name  
Localq ==> N/A  Queuing on local system (NO, YES, N/A)  
Priority ==> 1  Transaction priority (0-255, blank)  
Tranclass ==> DFHTCL00  Transaction class (DFHTCL00, name)  
Alias ==>  Alias name for transaction  
Taskreq ==>  Transactions initiation  
Xtranid ==>  Alternate name for initiating transaction  
Ressec ==> NO  Resource security checking (NO, YES)  
Cmdsec ==> NO  Sec checking for sys prog cmds (NO, YES)  
Action ==> BACKOUT  Recovery action (BACKOUT, COMMIT)  
Wait ==> YES  In-doubt unit of work wait (YES, NO)  
Waittime ==> 0 , 0 , 0 In-doubt unit of work wait time (blank, DD (0-93), HH (0-23), MM (0-59))

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

e. Press Enter. The transaction definition for ETVP is created and the TRANDEF view is redisplayed.

**Note:** There are two additional Create Transaction Definition panels (Page 3 and Page 4), which this example does not use. Transaction ETVP is created using the default values from those panels.

4. Create the program definition.
   a. From the TRANDEF view, issue the command PROGDEF.
   b. From the PROGDEF view, issue the command CRE.
   c. Complete the Create Program Definition panel as shown here:
d. Press Enter. The program definition for EYUWLMVP is created and the PROGDEF view is redisplayed.

5. Create the first file definition.
   a. From the PROGDEF view, issue the command FILEDEF.
   b. From the FILEDEF view, issue the command CRE.
   c. Complete the first Create File Definition panel as shown here:

   COMMAND ===> EYUFIL01 Version ===> 0
   Name ===> Payroll Updates - Local
   Description ===> VSAM PARAMETERS
   RESGROUP ===> Data set name
   User Data ===> PAYROLL.EUTL3
   Dsname ===> User access password
   Password ===> YES
   Rlsaccess ===> NO
   Rsppoolid ===> 1
   Readintegrity ===> UNCOMMITTED
   Dssharing ===> ALLREQS
   Strings ===> 30
   Nsrgroup ===> Group name for VSAM data set
   Press ENTER to update FILEDEF.
   Press UP or DOWN to view other screens
   Enter END or CANCEL to cancel without creating.

   d. Issue the DOWN command and complete the second Create File Definition panel as shown here:

   COMMAND ===> EYUFIL01 Version ===> 0
   Name ===> Payroll Updates - Local
   Description ===> VSAM PARAMETERS
   RESGROUP ===> Data set name
   User Data ===> PAYROLL.EUTL3
   Dsname ===> User access password
   Password ===> YES
   Rlsaccess ===> NO
   Rsppoolid ===> 1
   Readintegrity ===> UNCOMMITTED
   Dssharing ===> ALLREQS
   Strings ===> 30
   Nsrgroup ===> Group name for VSAM data set
   Press ENTER to update FILEDEF.
   Press UP or DOWN to view other screens
   Enter END or CANCEL to cancel without creating.
defining resources for an application

```
COMMAND ===>
Name          EYUFIL01  Version 0

Remote Attributes
Remotename   File name in remote system
RemoteSystem  Connection name to remote system

Remote and CF Datatable Parameters
Recordsize   Record size (1 - 32767, blank)
Keylength    Key length (1 - 255, blank)

Initial Status
Status      Status (ENABLED,DISABLED,UNENABLED)
Opentime    Open time (FIRSTREF, STARTUP)
Disposition  File disposition (SHARE, OLD)

NSR Buffers
Databuffers  Number of data buffers (2-32767, blank)
Indexbuffers Number of index buffers (1-32767, blank)

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

e. Issue the DOWN command again to complete the third Create File Definition panel as shown here:

```
COMMAND ===>
Name          EYUFIL01  Version 0

Datatable Parameters
Table        Data table type (NO, CICS, USER, CF)
Maxnumrecs   Max entries in data table ...
             (NOLIMIT or 1-99,999,999)

CF Datatable Parameters
Cfdtpool     Name of coupling facility data table pool
Tablename    Data table name
Updatemodel  Update model (LOCKING or CONTENTION)
Load         Whether this file loads table (LOAD or NOLOAD)

Record Format
Recordformat  Record format (VARIABLE, FIXED)

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

f. Issue the DOWN command again to complete the fourth Create File Definition panel as shown here:
g. Issue the DOWN command again to complete the fifth Create File Definition panel as shown here:

```
COMMAND ===>  
Name = EYUFIL01  Version ===> 0

Recovery Parameters
Recovery ===> NONE  Type of recovery (NONE,ALL,BACKOUTONLY)
Fwrdrevclog ===> NONE  Journal Name used for recovery (NO, 1-99, blank)
Backuptype ===> STATIC  CICS VSAM file backup type (STATIC,DYNAMIC)
Security
Ressecnum ===> STATIC  Resource security value (0-24,PUBLIC,blank)
```

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

h. Press Enter. The file definition for EYUFIL01 is created and the FILEDEF view is redisplayed.

**Note:** This example does not make use of the sixth Create File Definition panel, which applies only to systems running CICS for OS/2 2.0.1 and later.

6. Reuse the existing file definition to create a definition for another file.

a. In the FILEDEF view, tab to the entry for EYUFIL01 and issue the CRE command in the line command field.

The Create File Definition panel is displayed, showing the values you entered when creating EYUFIL01.

b. Update these fields:
   - Name
   - Lsrpoolid
   - Strings
defining resources for an application

as shown here:

```
COMMAND ===> EYUFIL02 Version ===> 0
Name ===> EYUFIL02 Version ===> 0
Description ===> Payroll Updates - Local
RESGROUP ===> User Data ===>

VSAM Parameters
Dname Data set name
   ===> PAYROLL.EUTL3
   ===>

Password ===> User access password
Rlsaccess ===> NO CICS opens files in RLS mode (YES,NO)
Lsrpoolid ===> Local shared resource pool (1-8, NONE, blank)
Readintegrity ===> UNCOMMITTED Read level (UNCOMMITTED,CONSISTENT,REPEATABLE)
Dsnsharing ===> ALLREQS Dataset sharing (ALLREQS,MODIFYREQS)
Strings ===> Concurrent file requests (1 - 255, blank)
Nsrgroup ===> Group name for VSAM data set

Press ENTER to update FILEDEF.
Press UP or DOWN to view other screens
Enter END or CANCEL to cancel without creating.
```

Note that the Lsrpoolid and Strings fields should now be blank.

c. Issue the DOWN command to display the second Create File Definition panel with the values you entered for EYUFIL01. You can use the same values for file EYUFIL02.
d. Issue the DOWN command again to display the third Create File Definition panel.
e. Update these fields:
   Databuffers
   Indexbuffers

as shown here:

```
COMMAND ===> EYUFIL02 Version ===> 0
Name ===>
Remote Attributes
RemoteFilename ===> Remote file name
RemoteSystem ===> SYSIDENT for Remote System
Remote and CF Datatable Parameters
Recordsize ===> Record size (1 - 32767, blank)
Keylength ===> Key length (1 - 255, blank)
   (1 - 16 for CF Tables)
Initial Status
Status ===> ENABLED Status (ENABLED,DISABLED,UNENABLED)
Opentime ===> FIRSTREF Open time (FIRSTREF, STARTUP)
Disposition ===> SHARE File disposition (SHARE, OLD)
NSR Buffers
Databuffers ===> Number of data buffers (2-32767, blank)
Indexbuffers ===> Number of index buffers (1-32767, blank)

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

Note that the Databuffers and Indexbuffers fields should now be blank.
f. Press Enter. The file definition for EYUFIL02 is created and the FILEDEF view is redisplayed.
Note: This example does not make use of the sixth Create File Definition panel, which applies only to systems running CICS for OS/2 2.0.1 and later.

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.

7. Create a resource assignment for the transaction definition.
   a. From the FILEDEF view, issue the command RASGNDEF.
   b. From the RASGNDEF view, issue the command CRE.
   c. Complete the first Create Resource Assignment panel as shown here:

   ---------- Create Resource Assignment for EYUPLX01 Page 1 ----------------------
   COMMAND ===> EYUBAA01
   Name ===> SSET - Assign TransactionDefs
   Description ===> EYUMAS1A CICS System or System Group
   Target Scope ===> EYUMAS1B CICS System or System Group
   Resource Group ===> EYUBAG01 RESGROUP Containing definitions
   Resource Type ===> TRANDEF Resource Definition Type
   Usage ===> REMOTE Assignment type (LOCAL,REMOTE,LINK)
   Mode ===> DYNAM Usage Qualifier by Resource Type
   Referenced Assign ===> Resource Assignment definition name
   Override ===> RELATED Scope of override (TARGET,RELATED,BOTH)

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

   d. Press Enter. The resource assignment for transaction definitions is created and the RASGNDEF view is redisplayed.

   Note: This example does not make use of the second Create Resource Assignment panel, which allows you to specify filter and override expressions for the assignment.

8. Create a resource assignment for the program definition.
   a. From the RASGNDEF view, issue the command CRE.
   b. Complete the first Create Resource Assignment panel as shown here:

   ---------- Create Resource Assignment for EYUPLX01 Page 1 ----------------------
   COMMAND ===> EYUBAA02
   Name ===> SSET - Assign ProgramDefs
   Description ===> EYUCSG03 CICS System or System Group
   Target Scope ===> EYUCSG03 CICS System or System Group
   Related Scope ===> EYUCSG03 CICS System or System Group
   Resource Group ===> EYUBAG01 RESGROUP Containing definitions
   Resource Type ===> PROGDEF Resource Definition Type
   Usage ===> LOCAL Assignment type (LOCAL,REMOTE,LINK)
   Mode ===> N/A Usage Qualifier by Resource Type
   Referenced Assign ===> Resource Assignment definition name
   Override ===> RELATED Scope of override (TARGET,RELATED,BOTH)

   Press ENTER to create Resource Assignment.
   Type UP or DOWN to view other screens.
   Enter END or CANCEL to cancel without creating.
defining resources for an application

c. Press Enter. The resource assignment for program definitions is created and the RASGNDEF view is redisplayed.

9. Create a resource assignment for the file definitions.
   a. From the RASGNDEF view, issue the command CRE.
   b. Complete the first Create Resource Assignment panel as shown here:

```
---------- Create Resource Assignment for EYUPLX01 Page 1 ----------------------

COMMAND ===> 
Name ===> EYUBAA03
Description ===> SSET - Assign File Defs
Target Scope ===> EYUCSG03 CICS System or System Group
Related Scope ===> EYUMAS4A CICS System or System Group
Resource Group ===> EYUBAG01 RESGROUP Containing definitions
Resource Type ===> FILEDEF Resource Definition Type
Usage ===> REMOTE Assignment type (LOCAL,REMOTE,LINK)
Mode ===> N/A Usage Qualifier by Resource Type
Referenced Assign ===> Resource Assignment definition name
Override ===> RELATED Scope of override (TARGET,RELATED,BOTH)

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

c. Press Enter. The resource assignment for file definitions is created and the RASGNDEF 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.

10. Create a resource description for the WLM application.
   a. From the RASGNDEF view, issue the command RESDESC.
   b. From the RESDESC view, issue the command CRE.
   c. Complete the first Create Resource Description panel as shown here:

```
---------- Create Resource Description for EYUPLX01 Page 1 ---------------------

COMMAND ===> 
Name ===> EYUBAD01
Description ===> SSET - WLM IVP Application
Valid Scope ===> YES Add to Topology Scope Set (YES,NO)
Scope Name ===> WLMIVP Name to be used as Scope
Model ===> Resource Description copy model
ResGroup Scope ===> Scope applied to associated ResGroups
Auto Install ===> YES Add Description Resources to Scope

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

d. Press Enter. The resource description for the WLMIVP application is created and the RESDESC view is redisplayed.

**Note:** This example does not make use of the second Create Resource Description panel, which allows you to specify resource groups and the
11. Associate the resource assignment for each resource type with the WLMIVP resource description.
   a. From the RESDESC view, issue the command RASGNDEF.
   b. In the RASGNDEF view, tab to the entry for EYUBAA01 (the resource assignment for transaction definitions) and issue the ADD command in the line command field.
      The Associate Assignment to Description panel is displayed with EYUBAA01 in the Assignment Name field.
   c. Complete the panel as shown here:

      ---------- Associate Assignment to Description for EYUPLX01 ----------- --
      COMMAND ===>
      Assignment Name ===> EYUBAA01
      Description Name ===> EYUBAD01
      Description ===> Trans Assigned to WLMIVP
      Group Name ===> 
      Target Scope ===> 
      Related Scope ===> 

      Press ENTER to add Assignment to Description.
      Enter END or CANCEL to cancel without adding.

   d. Press Enter. The association between EYUBAA01 and EYUBAD01 is created and the RASGNDEF view is redisplayed.

   Repeat this step for resource assignments EYUBAA02 and EYUBAA03.

12. Modify the CICS system definitions to indicate that automatic resource installation is required each time the target systems are cold started.
   a. From the RASGNDEF view, issue the command CICSSYS.
   b. From the CICSSYS view, issue the command UPD for the CICS system EYUMAS1A.
   c. Complete the Update System - BAS Attributes panel as shown here:

      ------------ Update System - BAS Attributes - for EYUPLX01 --------------
      COMMAND ===>
      System Name EYUMAS1A
      Description Starter Set TOR 1 on System A
      Install Resources ===> COLDONLY (NEVER, ALWAYS, COLDONLY, WARMONLY)
      Recovery Action ===> CONTINUE (CONTINUE,PROMPT,TERMINATE,IMMEDIATE,NORMAL)

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

   d. Press Enter. The CICS system definition is updated and the CICSSYS view is redisplayed.

   Repeat this step for other CICS systems in the target scope.
defining resources for an application
Chapter 25. Installing CICS resources dynamically

This section provides examples of the various methods that CICSPlex SM supports for installing resources dynamically into active CICS systems. These methods are similar to the installation options provided by CEDA.

- "Installing an individual resource"
- "Installing resources from a resource group" on page 108
- "Installing a resource description" on page 108

Installing an individual resource

This example installs an individual program into an active CICS system.

1. If the current context isn't EYUPLX01, issue the command CON EYUPLX01.

2. Display a list of the programs defined to CICSPlex SM.
   
   a. From the current view, issue the command PROGDEF. The PROGDEF view is displayed, as shown here:

   | 26FEB2001 11:30:30 | ---------- INFORMATION DISPLAY ------------------------------ |
   | COMMAND ===>SCROLL ===> PAGE |
   | CURR WIN ===>1 ALT WIN ===> |
   | W1 =PROGDEF=xxxxx=EYUPLX01=EYUPLX01=26FEB2001=11:30:30=CPSM=3== |

   CMD Name | Ver | Created | Changed | Description
   --- | -------- | --- | --- | ---
   EYUPRG01 | 1 | 1/12/97 08:06 | 1/12/97 08:06 | SSET - Definition
   EYUPRG02 | 1 | 1/12/97 08:09 | 1/12/97 08:09 | SSET - Definition
   EYUWLMVP | 1 | 1/17/97 11:19 | 1/17/97 11:19 | SSET - Workload IVP Progra | 2

3. Install the EYUWLMVP program.
   
   a. In the PROGDEF view, tab to the entry for EYUWLMVP and issue the INS command in the line command field. The Install Resource panel is displayed.
   
   b. Specify the Target Scope value as shown here:

   ---------------------- Install Resource for EYUPLX01 ---------------------
   COMMAND ===> Name EYUWLMVP Version 0
   Type PROGDEF
   Target Scope ===> EYUMAS2A
   Related Scope >>>

   Usage ===> LOCAL How resource is referenced
   Mode ===> N/A Resource use qualifier
   Override ===> NONE Scope Attribute overrides applied to
   Ref Assign ===> Resource Assignment name
   Notify ===> NO Precheck (INACTIVE, RELEASE, FULL, NO)
   State Check ===> NO Consistent State (YES, NO)
   Force Install ===> NO Unconditional install (YES, NO)

   Override string expression: (Type MODIFY to list modifiable columns)
   >>>
   >>>
   >>>
   Press ENTER to Install.
   Type END or CANCEL to cancel without installing.
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 current view, issue the command RESGROUP. The RESGROUP view is displayed, as shown here:

<p>| 26FEB2001 19:33:51 ------------ INFORMATION DISPLAY --------------------------- |
| COMMAND ===&gt; SCROLL ===&gt; PAGE |
| CURR WIN ===&gt; 1 ALT WIN ===&gt; |
| WI = RESGROUP=EYUPLX01=EYUPLX01=26FEB2001=19:33:51=CPSM=4= |</p>
<table>
<thead>
<tr>
<th>CMD Name</th>
<th>Description</th>
<th>Restype</th>
<th>ResVer</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>EYUBAG01</td>
<td>SSET - WLM IVP Application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYUBAG02</td>
<td>SSET - CPU Only Application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYUBAG05</td>
<td>SSET - Autoinst Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYUBAG06</td>
<td>SSET - CommonDefs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Install the programs in resource group EYUBAG01.
   a. In the RESGROUP view, tab to the entry for EYUBAG01 and issue the INS command in the line command field.
   b. Complete the Install Resource panel as shown here:

   | ------------------ Install Resource for EYUPLX01 ------------------ |
   | COMMAND ===> |
   | Group Name | EYUBAG01 | Resource Group |
   | Assignment | ===> | Resource Assignment name |
   | Type | ===> PROGDEF | Resource Type to process |
   | Ref Assignment | ===> | Referenced Resource Assignment name |
   | Target Scope | ===> EYUMAS2A | |
   | Related Scope | ===> | |
   | Usage | ===> LOCAL | How resource is referenced |
   | Mode | ===> N/A | Resource use qualifier |
   | Override | ===> NONE | Scope Attribute overrides applied to |
   | Notify | ===> NO | Precheck (INACTIVE, RELEASE, FULL, NO) |
   | State Check | ===> NO | Consistent State (YES, NO) |
   | Force Install | ===> NO | Unconditional Install |

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

   c. Press Enter. All of the programs defined in EYUBAG01 are installed in EYUMAS2A and the RESGROUP 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 current view, issue the command RESDESC. The RESDESC view is displayed, as shown here:
2. Install resource description EYUBAD01.
   a. In the RESDESC view, tab to the entry for EYUBAD01 and issue the INS command in the line command field. The Install Resource Description panel is displayed, as shown here:

   ![Install Resource Description Panel](image)

   b. Accept the supplied values and press Enter.
   All of the resources associated with EYUBAD01 are installed according to the target and related scopes named in that resource description. The RESDESC view is redisplayed.

---

2. Install resource description EYUBAD01.
   a. In the RESDESC view, tab to the entry for EYUBAD01 and issue the INS command in the line command field. The Install Resource Description panel is displayed, as shown here:

   ![Install Resource Description Panel](image)

   b. Accept the supplied values and press Enter.
   All of the resources associated with EYUBAD01 are installed according to the target and related scopes named in that resource description. The RESDESC view is redisplayed.
installing CICS resources dynamically
Chapter 26. Connection resource definitions

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

Accessing BAS connection definitions

To display information about existing connection definitions:

**Issue the command:**

```
CONNDEF [resdef]
```

where *resdef* is the specific or generic name of a connection definition. If you omit this parameter, the view, illustrated in Figure 24, includes information about all existing connection definitions within the current context.

**Select:**

CONNDEF from the ADMRES menu.

![Figure 24. The CONNDEF view](image)

Working with the CONNDEF view

The topics covered in this section are:

- “[Availability](#) of the CONNDEF view
- “[Action commands](#) for the CONNDEF view.
- “[Hyperlink fields” on page 112](#) for the CONNDEF view.

Availability

Connections can be defined for all managed CICS systems.

Action commands

Table 3 summarizes the action commands you can use with the CONNDEF view.

**Table 3. CONNDEF view action commands**

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a connection definition to a resource group, as described on page 45.</td>
</tr>
</tbody>
</table>
Table 3. CONNDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of connection definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a connection definition in the data repository.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The format of the resulting panels is similar to that shown in Figure 25 on page 113 and Figure 26 on page 113. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a connection definition and add it to the data repository, as described on page 112.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a connection in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a connection definition from the data repository, as described on page 51.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a connection definition in the data repository.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The format of the resulting panels is similar to that shown in Figure 25 on page 113 and Figure 26 on page 113. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the CONNDEF view.

Defining connections using BAS

To create a BAS connection definition:

1. Enter the create primary (CREate) or line (CRE) action command from the CONNDEF view.
2. Fill in the fields on the first panel (see Figure 25 on page 113):
3. To add the connection definition to the data repository, press Enter. To continue creating a connection definition, issue the DOWN command. Otherwise, issue one of the other commands available from this panel.

4. Fill in the fields on the second panels (see Figure 26):

5. To continue:
   - For all systems other than CICS for OS/2 systems, go to step 7 on page 114.
   - For CICS for OS/2 systems only, issue the DOWN command.
6. For CICS for OS/2 systems only, fill in the fields on the third connection definition panel (see Figure 27):

![Figure 27. Creating a connection definition - Page 3](image)

7. To add the connection definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

### Installing BAS connection definitions

To install a connection in an active system, issue the INS command.

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

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

### Connection definition attributes

The connection resource definition attribute descriptions are:

**AccessMethod**

- **VTAM**: VTAM intersystem communication.
- **INDIRECT**: Communication between the local CICS system and the system defined by this connection definition is through the system named in the Indirect Sys field.
NETBIOS
NetBIOS (CICS for OS/2)

TCPIP
TCP/IP (CICS for OS/2)

XCF
MVS coupling facility

IRC
The interregion communication (IRC) program DFHIRP.

XM
MVS cross-memory services.

AttachSec
specifies the level of attach-time user security required for the connection.

IDENTIFY
Incoming attach requests must specify a user identifier. Enter IDENTIFY when the connecting system has a security manager; for example, if it is another CICS system.

LOCAL
The authority of the user is taken to be that of the link itself, and you rely on link security alone to protect your resource. If the PROTOCOL attribute on the CONNECTION definition is LU6.1, you must specify LOCAL.

MIXIDPE
Incoming attach requests may be using either or both IDENTIFY or PERSISTENT security types. The security type actually used depends on the incoming attach request.

PERSISTENT
Incoming attach requests must specify a user identifier and a user password on the first attach request.

VERIFY
Incoming attach requests must specify a user identifier and a user password.

AutoConnect
Indicate whether autoconnect processing is to occur for the connection.

BindPassword (APPC only)
For APPC links on systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, specify a password of up to 16 hexadecimal characters (0–9, A–F).

The password does not appear while you are typing it and it is not displayed on the update or browse panel. If you specify a password, the BindPassword field name appears highlighted on the update and browse panels to indicate a password exists; the field itself contains blanks. You can use the update panel to change an existing password or add a new password.

BindSecurity (APPC only)
specifies whether an ESM is being used for bind-time security.

No
No external bind-time security is required.

Yes
If security is active and the XAPPC system initialization parameter is set to YES, an ESM is called.

ConnPriority (CICS for OS/2 only)
Specify the connection priority, in the range 0 through 255. (The default is 86.)

ConnType
For external CICS interface (EXCI) connections, this specifies the nature of the connection.
**CONNDEF**

**GENERIC**
The connection is for communication from a non-CICS client program to the CICS system, and is generic. A generic connection is an MRO link with a number of sessions to be shared by multiple EXCI users. For a generic connection you cannot specify the NETNAME attribute.

**SPECIFIC**
The connection is for communication from a non-CICS client program to the CICS region, and is specific. A specific connection is an MRO link with one or more sessions dedicated to a single user in a client program. For a specific connection, NETNAME is mandatory.

**APPC** Connection to another CICS system using APPC (CICS for OS/2).

**NETBIOS** LAN connection to a CICS for Windows NT or CICS for OS/2 system using NetBIOS (CICS for OS/2).

**TCPIP** LAN connection to a CICS for Windows NT or CICS for OS/2 system using TCP/IP (CICS for OS/2).

**NOTAPPLIC** The connection does not use EXCI.

**Datastream**
specifies the type of data stream.

**LMS** Specify the type of data stream.

**SCS** The data stream is an SCS data stream as defined in the LUTYPE6.1 architecture.

**STRFIELD**
The data stream is a structured field data stream as defined in the LUTYPE6.1 architecture.

**USER** User-defined data stream.

**3270** The data stream is a 3270 data stream as defined in the type 6.1 logical unit (LUTYPE6.1) architecture.

**Description**
(Optional.) Specify a 1- to 30-character description of the connection.

**IndirectSys**
specifies the name of an intermediate system that is used to relay communications between this system and the remote system. The name can be up to four characters in length.

You may name an intermediate system only if you specify INDIRECT in the AccessMthod field.

**Inservice**
specifies the status of the connection that is being defined.

**NO** The connection can neither receive messages nor transmit input.

**YES** Transactions may be initiated and messages may automatically be sent across the connection.

**LocalHostName (CICS for OS/2 only)**
For a TCP/IP connection, specify a 1- to 40-character host name (or equivalent IP address) for the local system. If you specify an asterisk (*), TCP/IP chooses which adapter to use.
LUAlias (CICS for OS/2 only)
For an APPC connection, specify the 1- to 8-character alias of the local logical unit.

MaxQueTime
specifies a time control on the wait time for queued allocate requests waiting for free sessions on a connection that appears to be unresponsive. The maximum queue time is used only if a queue limit is specified in the Queuelimit field, and then the time limit is applied only when the queue length has reached the queue limit value.

NO  No limit on the length of time that allocate requests can remain queued.
nnn  The approximate upper limit on the time that allocate requests can be queued for a connection that appears to be unresponsive. The number represents seconds in the range 0 through 9999.

If you do not specify a queue limit, leave this field blank.

ModeName (CICS for OS/2 only)
For an APPC connection, identify the Communications Manager/2 mode definition that specifies the session attributes for the connection.

Name
Specify a 1- to 4-character name for the connection definition.

NetBIOSAdapter (CICS for OS/2 only)
For a NetBIOS connection, identify the logical LAN adapter to be used for the remote system. Valid values are 0, 1, or B (for both).

NetName
Specify the 1– to 8–character network name of the remote system.

PartnerLUAlias (CICS for OS/2 only)
For an APPC connection, specify the 1- to 8-character name used by Communications Manager/2 to refer to the partner logical unit.

Protocol
specifies the type of protocol that is to be used for the link.

APPC (LUTYPE6.2 protocol)
Advanced program-to-program communication, or APPC protocol. This is the default value for ACCESSMETHOD(VTAM).

EXCI  The external CICS interface. Specify this to indicate that this connection is for use by a non-CICS client program using the external CICS interface.

LU61  LUTYPE6.1 protocol. Specify this for CICS-CICS ISC or CICS-IMS ISC, but not for MRO.

NOTAPPLIC
For CICS-CICS MRO links when you specify LU61 on the associated session definition (SESSDEF).

PartCodePage (CICS for OS/2 only)
Specify the 1- to 5-digit code page of the remote system. (The default is 37.)

PSRecovery
In a CICS region running with persistent sessions support, this specifies whether, and how, LU6.2 sessions are recovered on system restart within the persistent session delay interval.

NONE  All sessions are unbound as out-of-service with no CNOS recovery.
SYSDEFAULT
If a failed CICS system is restarted within the persistent session delay interval, the following actions occur:

- User modegroups are recovered to the SESSIONS RECOVOPTION value.
- The SNASVCMB modegroup is recovered.
- The connection is returned in ACQUIRED state and the last negotiated CNOS state is returned

N/A The PSRecovery value does not apply to this definition and should not be validated.

Queuelimit
specifies the maximum number of allocate requests that CICS is to queue while waiting for free sessions:

- **NO** There is no limit set to the number of allocate requests that CICS can queue while waiting for a free session.
- **nnnn** The maximum number of allocate requests, in the range 0 through 9999, that CICS can queue on the connection while waiting for a free session.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment.

RecordFormat
specifies the type of SNA chain.

- **U** A single, unblocked stream of data.
- **VB** The SNA chain is formatted according to the VLVB standard as defined in the LUTYPE6.1 architecture.

RemoteHostName (CICS for OS/2 only)
For a TCP/IP connection, specify the 1- to 40-character host name (or equivalent IP address) of the remote system.

RemoteHostPort (CICS for OS/2 only)
For a TCP/IP connection, identify the TCP port on the remote system:

- **value** A port number, in the range 1 through 65535. (The default is 1435.)
- *** (asterisk)** The value from the TCP/IP SERVICES file is used.

RemoteName
specifies the name by which the APPC connection for transaction routing is known in the system or region that owns the connection. The name can be up to four characters in length.

RemoteSysNet
specifies the network name (APPLID) of the system that owns the connection. The name can be up to four characters in length.

RemoteSystem
specifies the name that identifies the intercommunication link to the system that owns the connection. The name can be up to four characters in length.

RemSysApplid (CICS for OS/2 only)
For a NetBIOS connection, specify the 1- to 8-character name of the remote CICS system. This name must match the Local System Appl ID in the remote system’s SIT.
RESGROUP
(Optional.) The name of the resource definition group to which this definition is to be automatically added.

SecurityName
For APPC and LU6.1 links only, this is the security name of the remote system.
The security name (or USERID on the sessions definition) must be a valid RACF userid on your system.

SingleSess
specifies whether the definition is for an APPC terminal on a single session APPC link to CICS.

NO The definition is not for a single session APPC link to CICS.
YES The definition is for an APPC terminal on a single session APPC link to CICS.
N/A The SingleSess value does not apply to this definition and should not be validated by CICSPlex SM.

SessBuff Size (CICS for OS/2 only)
Specify the maximum buffer size for a session, in the range 512 through 40000. (The default is 16384.)

SessCount (CICS for OS/2 only)
Specify the number of sessions that can be concurrently active on the connection, in the range 1 through 99. (The default is 1.)

Usedfltuser (APPC and MRO only)
specifies the kind of security checking that will take place for each inbound attach FMH.

NO Indicates that each inbound attach FMH will be checked for the presence of those fields required by the ATTACHSEC option and if the required fields are not present a protocol violation message will be issued and the attach will fail. NO is the default.
YES Use the default user ID specified in the DFLUSER SIT parameter for the CICS system.
N/A The Usedfltuser value does not apply to this definition and should not be validated by CICSPlex SM.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the connection. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

XlnAction
for APPC and IRC links on systems running the CICS TS for OS/390, specifies the action to be taken when a new logname is received from the partner system.

FORCE The predefined decisions for in-doubt UOWs (as defined by the indoubt attributes of the transaction definition) are implemented, before any new
Conndef

Work with the new logname is started. CICS also deletes any information retained for possible resolution of UOWs that were in-doubt at the partner system.

**KEEP** Recovery information is kept, and no action is taken for in-doubt units of work.

**N/A** The XlnAction value does not apply to this definition and should not be validated by CICSPlex SM.
Chapter 27. CorbaServer definitions

EJCODEF definitions describe the physical and operational characteristics of CorbaServers.

Accessing BAS CorbaServer definitions

To display information about existing CorbaServer definitions:

Issue the command:

EJCODEF [resdef]

where resdef is the specific or generic name of a CorbaServer definition. If you omit this parameter, the view, illustrated in Figure 28, includes information about all existing CorbaServer definitions within the current context and scope.

Select:

EJCODEF from the ADMRES menu.

Working with the EJCODEF view

The topics covered in this section are:

- "Availability" of the EJCODEF view
- "Action commands" for the EJCODEF view.
- "Hyperlink fields" on page 122 for the EJCODEF view.

Availability

CorbaServers can be defined for CICS Transaction Server Version 2.1 and later systems.

Action commands

Table 4 on page 122 summarizes the action commands you can use with the EJCODEF view.

Figure 28. The EJCODEF view
Table 4. EJCODEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a CorbaServer definition to a resource group, as described in &quot;Adding a resource definition to a resource group&quot; on page 49.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of CorbaServer definitions, as described in Figure 6 on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a CorbaServer definition in the data repository. The format of the resulting panel is similar to that shown in Figure 29 on page 123. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a CorbaServer definition and add it to the data repository, as described in &quot;Defining CorbaServers using BAS&quot;.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS Transaction Server Version 2.1 and later, install a CorbaServer in an active system, as described in &quot;Installing BAS CorbaServer Definitions&quot; on page 123.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a CorbaServer definition from the data repository, as described in &quot;Remove a resource definition&quot; on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a CorbaServer definition in the data repository. The format of the resulting panel is similar to that shown in Figure 29 on page 123. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the EJCODEF view.

Defining CorbaServers using BAS

Figure 29 on page 123 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the EJCODEF view.
Installing BAS CorbaServer definitions

To install a CorbaServer in an active system, issue the INS command. CorbaServers may be installed only with a local scope.

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

- The CICSPlex SM EJCOS command; see CICSPlex SM Operations Views Reference.
- The CICS CEMT INQUIRE CORBASERVER command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE CORBASERVER command; see CICS System Programming Reference.

CorbaServer definition attributes

The CorbaServer resource definition attribute descriptions are:
Certificate
specifies the 1–56 character label of the certificate in the key ring that is to be used (as a client certificate) in the SSL handshake for outbound IIOP connections.

The distinguished name within the specified certificate provides inputs to the distinguished name user-replaceable program, DFHEJDNX.

If this option is not specified, the default certificate for the key ring is used.

Description
You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

Host
specifies the TCP/IP host name, or a string containing the dotted-decimal TCP/IP address, of this logical EJB/CORBA server.

The host name is included in Interoperable Object References (IORs) exported for objects in this logical server. Clients must use this host name to access the CICS listener regions.

If you are using connection optimization by means of Domain Name System (DNS) registration, to balance client connections across the listener regions of your logical IIOP or EJB server, specify the generic host name to be quoted by client connection requests. (The generic host name is the DNSGROUP value defined in the TCPIPSERVICE resource definition, suffixed by the name of the domain or subdomain managed by the MVS system nameserver. This is established by your MVS TCP/IP system administrator.) See Java Applications in CICS for more information about using DNS with IIOP and enterprise beans.

JNDIPrefix
specifies a JNDI prefix of up to 255 characters which is used when enterprise beans are published to the Java Naming and Directory Interface™ (JNDI). The acceptable characters are A-Z a-z 0-9 . _ / . Publishing a bean means binding a reference to the home of the bean in a namespace. The naming context in which the bean is bound is named, relative to the initial context defined for the CICS region, using a concatenation of the JNDIPREFIX attribute of the CorbaServer and the name of the bean. The JNDIPREFIX attribute must match the prefix specified by the client when it uses JNDI to obtain a reference to the home interface for a bean. For more information, see Java Applications in CICS.

CICS limits the use of the / character in the JNDI prefix field to prevent the use of empty atomic components, which are denoted by an empty string. The / character may not be the first or last character of the prefix. Also, two or more consecutive instances of the / character are not allowed anywhere in the prefix.

If this option is not specified, no prefix is added when publishing enterprise beans to JNDI.

Name
The 1-4 character name of a CorbaServer.

Port
specifies the TCP/IP port number to be used for non-SSL communication to this logical EJB/CORBA server. The port number must be in the range 1–65535. The default is 00683.

You must not specify the same port number for PORT and SSLPORT.
If you install a TCP/IP service on this port, the TCPIPSERVICE definition must specify SSL(NO).

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Sessbeantime**
specifies, in days, hours, and minutes, the period of inactivity after which a session bean may be discarded by CICS.

- **00,00,00**
  Session beans will not be timed out.
- **00,00,10**
  Session beans may be discarded after ten minutes of inactivity. This is the default value.
- **dd, hh, mm**
  Session beans may be discarded after the specified period of inactivity. The maximum value you can specify is 99,23,59—99 days, 23 hours, and 59 minutes.

**Shelf**
specifies the 1–255 character fully-qualified name of a directory (a shelf, primarily for deployed JAR files) on HFS. The acceptable characters are A-Z a-z 0-9 . _ /.

CICS regions into which the CORBASERVER definition is installed must have full permissions to the shelf directory—read, write, and the ability to create subdirectories.

A single shelf directory may be shared by multiple CICS regions and by multiple CORBASERVER definitions. Each CICS region uses a separate subdirectory to keep its files separate from those of other CICS regions. The subdirectories for CORBASERVER definitions are contained within the subdirectories of the CICS regions into which they are installed. After a CICS region performs a cold or initial start, it deletes its subdirectories from the shelf before trying to use the shelf.

You should not modify the contents of a shelf that is referred to by an installed CORBASERVER definition. If you do, the effects are unpredictable.

**SSL**
specifies the secure sockets layer (SSL) type for this logical EJB/CORBA server:

- **CLIENTCERT**
  SSL is used and authentication must be performed using a client certificate. You must specify a value for SSLPORT.
  If you install a TCP/IP service on the SSL port, the TCPIPSERVICE definition must specify SSL(CLIENTAUTH) and AUTHENTICATE(CERTIFICATE). (This means that the client is required to send an SSL certificate which maps to an external security manager userid.)

- **NO**
  SSL is not used. This CorbaServer does not have an SSL port.

- **YES**
  SSL is used. You must specify a value for SSLPORT.
If you install a TCP/IP service on the SSL port, the TCPIPSERVICE definition must be specified in one of the following ways:

1. SSL(CLIENTAUTH) and AUTHENTICATE(NO). The client is asked for an SSL certificate and, if it sends one, CICS uses any userid configured for it.
2. SSL(YES) and AUTHENTICATE(NO). SSL is used, but the client is not asked for an SSL certificate.

SSLPort
specifies the TCP/IP port number to be used for SSL communication by this logical EJB/Corba server. The port number must be in the range 1–65535. The default is No.

If SSL is NO, the value of this option is ignored.
If SSL is YES, the default for SSLPORT is 00684.
You must not specify the same port number for PORT and SSLPORT.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the file key segments. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 28. CICS-deployed JAR file definitions

EJDJDEF definitions describe the physical and operational characteristics of deployed JAR files.

Accessing deployed JAR file definitions

To display information about existing deployed JAR file definitions:

Issue the command:

```
EJDJDEF [resdef]
```

where `resdef` is the specific or generic name of a deployed JAR file definition. If you omit this parameter, the view, illustrated in Figure 30, includes information about all existing deployed JAR file definitions within the current context.

Select:

EJDJDEF from the ADMRES menu.

Working with the EJDJDEF view

The topics covered in this section are:

- "Availability" of the EJDJDEF view
- "Action commands" for the EJDJDEF view.
- "Hyperlink fields" on page 128 for the EJDJDEF view.

Availability

CICS-deployed JAR files can be defined for CICS Transaction Server for OS/390 Version 2.1 and later systems.

Action commands

Table 5 on page 128 summarizes the action commands you can use with the EJDJDEF view.
Table 5. EJDJDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a CICS-deployed JAR file definition to a resource group, as described in <a href="#">Adding a resource definition to a resource group</a> on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of CICS-deployed JAR file definitions as described in <a href="#">Figure 6 on page 27</a>.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a CICS-deployed JAR file definition in the data repository.</td>
</tr>
<tr>
<td>n/a</td>
<td>CREate CRE</td>
<td>Create a CICS-deployed JAR file definition and add it to the data repository, as described in <a href="#">Table 5</a>.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS Transaction Server Version 2.1 and later, install a CICS-deployed JAR file in an active system, as described in <a href="#">Installing BAS CICS-deployed JAR file definitions</a> on page 129.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a CICS-deployed JAR file definition from the data repository, as described in <a href="#">Remove a resource definition</a> on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a CICS-deployed JAR file definition in the data repository.</td>
</tr>
</tbody>
</table>

The format of the resulting panel is similar to that shown in [Figure 31 on page 129](#). All of the fields are nonmodifiable.

Hyperlink fields

There are no hyperlink fields in the EJDJDEF view.

Defining a CICS-deployed JAR file using BAS

[Figure 31 on page 129](#) shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the EJDJDEF view.
Installing BAS CICS-deployed JAR file definitions

To install a CICS-deployed JAR file in an active system, issue the INS command. CICS-deployed JAR files may be installed only with a local scope.

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

- The CICSPlex SM EJDJAR command; see CICSPlex SM Operations Views Reference.
- The CICS CEMT INQUIRE DJAR command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE DJAR command; see CICS System Programming Reference.

CICS-deployed JAR file definition attributes

The deployed JAR file definition attributes are:

**CORBA Server**

specifies the 1-4 character name of the CorbaServer in which this DJAR is to be installed. The acceptable characters are A-Z a-z 0-9.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**HFSFile**

specifies the 1-255 character fully-qualified file name of the deployed JAR file on HFS. The acceptable characters are A-Z a-z 0-9 . _ / . The name is case-sensitive, and may not contain spaces. The name must not end with a /, and must not contain consecutive instances of the / character.

**Name**

The 1-8 character name of the DJAR.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.
User data
(Optional.) Three 8-character fields provided for any site-specific data related to the request model. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 29. DB2 connection resource definitions

A DB2 connection definition (DB2CDEF), establishes the global characteristics of connections between CICS regions and a DB2 subsystem via the DB2 attachment facility.

Accessing BAS DB2 connection definitions

To display information about existing DB2 connection definitions:

Issue the command:

```
DB2CDEF [resdef]
```

where resdef is the specific or generic name of a DB2 connection definition. If you omit this parameter, the view, illustrated in Figure 32, includes information about all existing DB2 connection definitions within the current context.

Select:

DB2CDEF from the ADMRES menu.

![Figure 32. The DB2CDEF view](image)

Working with the DB2CDEF view

The topics covered in this section are:

- "Availability" of the DB2CDEF view
- "Action commands" for the DB2CDEF view.
- "Hyperlink fields" on page 132 for the DB2CDEF view.

Availability

DB2 connections can be defined for all managed CICS systems from CICS TS for OS/390 Release 2 onwards.

Action commands

Table 6 on page 132 summarizes the action commands you can use with the DB2CDEF view.
### DB2CDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADD resdef version</strong></td>
<td><strong>ADD</strong></td>
<td>Add a DB2 connection definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td><strong>ALTER</strong></td>
<td><strong>n/a</strong></td>
<td>Apply global changes to a set of DB2 connection definitions, as described on page 27.</td>
</tr>
<tr>
<td><strong>n/a</strong></td>
<td><strong>BRO</strong></td>
<td>Browse a DB2 connection definition in the data repository. The format of the resulting panels is similar to that shown in Figure 33 on page 133 and Figure 34 on page 133. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td><strong>CREate</strong></td>
<td><strong>CRE</strong></td>
<td>Create a DB2 connection definition and add it to the data repository, as described on page 132.</td>
</tr>
<tr>
<td><strong>n/a</strong></td>
<td><strong>INS</strong></td>
<td>For systems running CICS TS for OS/390 Release 2 or later, install a DB2 connection in an active system, as described on page 75.</td>
</tr>
<tr>
<td><strong>n/a</strong></td>
<td><strong>MAP</strong></td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td><strong>REMove resdef version</strong></td>
<td><strong>REM</strong></td>
<td>Remove a DB2 connection definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td><strong>n/a</strong></td>
<td><strong>UPD</strong></td>
<td>Update a DB2 connection definition in the data repository. The format of the resulting panels is similar to that shown in Figure 33 on page 133 and Figure 34 on page 133. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the DB2CDEF view.

### Defining DB2 connections using BAS

To create a DB2 connection definition:

1. Issue the create primary (CREate) or line (CRE) action command from the DB2CDEF view.
2. Fill in the fields on the first DB2 connection definition panel (see Figure 33 on page 133):
3. To add the DB2 connection definition to the data repository, press Enter. To continue creating a DB2 connection definition, issue the DOWN command. Otherwise, issue one of the other commands available from this panel.

4. Fill in the fields in the second DB2 connection definition panel (see Figure 34):

Figure 33. Creating a DB2 connection definition - Page 1

5. To add the DB2 connection definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

Figure 34. Creating a DB2 connection definition - Page 2

Installing BAS DB2 connection definitions

To install a DB2 connection in an active system, issue the INS command.
After installation of a DB2CDEF resource definition, you can enquire about the resultant object using:

- The CICSPlex SM DB2CONN command; see CICSPlex System Manager Operations Views Reference.
- The CICS CEMT INQUIRE DB2CONN command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE DB2CONN command; see CICS System Programming Reference.

DB2 connection definition attributes

The attributes are described in the categories:

- "General attributes"
- "Connection attributes"
- "Pool thread attributes" on page 137
- "Command thread attributes" on page 139

General attributes

The DB2 connection definition general attribute descriptions are:

Name
The name to identify a DB2 connection definition. The name can be up to eight characters in length. The acceptable characters are: A-Z 0-9 $ @ and #.

Description
(Optional.) Specify a 1- to 30-character description for the DB2 connection.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to automatically added.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the connection. CICSPlex SM makes no use of this user data.

Connection attributes

The DB2 connection definition connection attribute descriptions are:

CONnecterror
Specifies the way that the information, that CICS is not connected to DB2 because the attachment facility is in 'standby mode', is reported back to an application that has issued an SQL request.

ABEND
The application abends with abend code AEY9.

SQLCODE
The application receives a -923 sqlcode. SQLCODE cannot be specified if STANDBYMODE is set to NOCONNECT.

DB2ID
Specifies the name of the DB2 subsystem to which the CICS DB2 attachment facility is to connect. By default this field is blank. This DB2id can be overridden.
by a DB2 subsystem id specified on a DSNC STRT command, by a DB2ID specified on a SET DB2CONN command, or by a subsystem id specified using INITPARM. If no override is used, the default of blanks is replaced by DSN when connection is attempted. Hence, the hierarchy for determining the DB2 subsystem is as follows:

1. Use the subsystem ID if specified in a DSNC STRT command.
2. Use the DB2ID in the installed DB2CONN if not blank.
3. Use the subsystem ID if specified on the INITPARM when the DB2ID in the last installed DB2CONN is blank (or has subsequently been set to blanks). On any startup, INITPARM is always used if the last installed DB2CONN contained a blank DB2ID, even if the DB2ID has been consequently changed using a SET command.
4. Use a default subsystem ID of DSN.

**MSGQUEUE1**
Specifies the first transient data destination to which unsolicited messages from the CICS DB2 attachment facility are sent. This first destination cannot be blank.

**MSGQUEUE2**
Specifies a second transient data destination to which unsolicited messages from the CICS DB2 attachment facility are sent.

**MSGQUEUE3**
Specifies a third transient data destination to which unsolicited messages from the CICS DB2 attachment facility are sent.

**Nontermrel**
Specifies whether or not a non-terminal transaction releases threads for reuse at intermediate syncpoints.

- **NO**  Non-terminal transactions do not release threads for reuse at intermediate syncpoints.
- **YES**  Non-terminal transactions release threads for reuse at intermediate syncpoints.

**Purgecycle**
Specifies the duration, in minutes and seconds, of the purge cycle for protected threads. The default is 0, 30; that is, 30 seconds.

A protected thread is not terminated immediately when it is released. It is terminated only after two completed purge cycles, if it has not been reused in the meantime. Therefore, if the purge cycle is set to 30 seconds, a protected thread is purged 30 - 60 seconds after it is released. The first purge cycle after the attachment facility starts is always 5 minutes. After that the purgecycle values are applied. An unprotected thread is terminated when it is released (at syncpoint or end of task) if there are no other transactions waiting for a thread on that DB2ENTRY. Only threads belonging to a DB2ENTRY can be protected. Pool threads and command threads cannot be protected.

**Signid**
Specifies the authorization ID to be used by the CICS DB2 attachment facility when signing on to DB2 for pool and DB2ENTRY threads that specify AUTHTYPE(SIGN). The default is blanks which are replaced by the applid of the CICS system when the DB2CONN is installed.

**Note:** If you specify a user ID on the SIGNID attribute, CICS performs a surrogate user check against the user ID performing the installation.
Similarly, the CICS region user ID is subject to a surrogate user check during group list installation on a CICS cold or initial start.

**STANbymode**

Specifies the action to be taken by the CICS DB2 attachment facility if DB2 is not active when an attempt is made to connect CICS to DB2.

**CONNECT**

Specifies that the CICS DB2 attachment facility is to wait in 'standbymode' for DB2 to become active. If the connection is made, and DB2 subsequently fails, the CICS DB2 attachment facility terminates.

**NOCONNECT**

Specifies that the CICS DB2 attachment facility is to terminate.

**RECONNECT**

Specifies that the CICS DB2 attachment facility is to go into 'standby mode' and wait for DB2. If DB2 subsequently fails after the connection is made, the CICS DB2 attachment facility reverts to 'standby mode', and CICS subsequently reconnects to DB2 when DB2 recovers.

**STATsqueue**

Specifies the transient data destination for CICS DB2 attachment facility statistics produced when the CICS DB2 attachment facility is shut down.

**TCblimit**

Specifies the maximum number of subtasks (TCBs) that can be attached by the CICS DB2 attachment facility to process DB2 requests. The default is 12. The minimum number is 4 and the maximum is 2000. The value controls the total number of threads for the CICS region. For this reason, the recommended value for TCBLIMIT is the sum of all the thread limit values (that is, the sum of all THREADLIMIT parameters on the DB2 connection and DB2 entry resource definitions, plus the COMTHREADLIMIT value on the DB2 connection definition) up to the limit of 2000. The value you choose for TCBLIMIT can be exceeded by increasing TREADLIMIT values for selected subtasks.

When determining the number for TCBLIMIT, you must consider the amount you specified for the MAX USERS parameter on DB2 installation panel DSNTIP.E.

**THREADError**

Specifies the processing that is to occur following a create thread error.

**ABEND**

```plaintext
When the first SQL error is detected, CICS takes a transaction dump for abend code AD2S, AD2T or AD2U, depending on the type of error that occurred. For the first error, the transaction does not abend. For a second or subsequent SQL error, the transaction abends with abend code AD2S, AD2T or AD2U. The transaction must be terminated and reinitialized before it is allowed to issue another SQL request.
```

**N906D**

A transaction dump is to be taken and the DSNCSQL RMI associated with the transaction is not to be disabled. The transaction receives a -906 SQLCODE if another SQL is issued, unless the transaction issues SYNCPOINT ROLLBACK. SYNCPOINT without the ROLLBACK option results in an ASP3 or ASP7 abend. The transaction dump records an abend of AD2S, AD2T or AD2U.

**N906**

The DSNCSQL RMI associated with the transaction is not to be
disabled. The transaction receives a -906 SQLCODE if another SQL request is issued, unless the transaction issues a SYNCPONT ROLLBACK. SYNCPONT without the ROLLBACK option results in an ASP3 or ASP7 abend.

**Pool thread attributes**

The DB2 connection definition pool thread attribute descriptions are:

**ACcountrec**

Specifies the minimum amount of DB2 accounting required for transactions using pool threads. The specified minimum may be exceeded as described in the following options.

- **NONE** No accounting records are required for transactions using pool threads.
- **TASK** The CICS DB2 attachment facility causes a minimum of one accounting record for each CICS task to be produced.
- **TXID** The CICS DB2 attachment facility causes an accounting record to be produced when the transid using the thread changes.
- **UOW** The CICS DB2 attachment facility causes an accounting record to be produced for each UOW, assuming that the thread is released at the end of the UOW.

**AUTHid**

Specifies the ID that should be used for security checking when using pool threads. If AUTHId is specified, AUTHTYPE may not be specified.

**AUTHTtype**

Specifies the type of ID that can be used for threads on this DB2ENTRY. If AUTHTYPE is specified, AUTHID may not be specified.

**USERID**

The 1 to 8-character USERID associated with the CICS transaction is used as the authorization ID. The name can be up to eight characters in length. The acceptable characters are: A-Z 0-9 $ @ and #. Lowercase characters are converted to uppercase except when using the CREATE command.

When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the user ID to DB2 as the primary authorization ID and the RACF group ID to DB2 as the secondary ID. When the sample sign-on exit is used, there is no difference between AUTHTYPE(USERID) and AUTHTYPE(GROUP).

**OPID**

The operator identification that is associated with the userid that is associated with the CICS transaction is used as the authorization ID (three characters padded to eight).

**GROUP**

Specifies the 1 to 8-character USERID and the connected group name as the authorization ID.

To use the GROUP option, the CICS system must have SEC=YES specified in the CICS system initialization table (SIT).

If no RACF group ID is available for this USERID, an 8-character field of blanks is passed to DB2 as the group ID.

**SIGN**

Specifies that the SIGNID parameter of the DB2 connection definition is to be used as the resource authorization ID.
**TERM** Specifies the terminal identification (four characters padded to eight) as an authorization ID. An authorization ID cannot be obtained in this manner if a terminal is not connected with the transaction.

If a transaction is started (using a CICS command) and has no terminal associated with it, AUTHTYPE(TERM) should not be used.

**TX** Specifies the transaction identification (four characters padded to eight) as the authorization ID.

**DRollback**
Specifies whether or not the CICS DB2 attachment facility should initiate a SYNCPOINT ROLLBACK if a transaction is selected as the victim of a deadlock resolution.

**YES** The attachment facility issues a syncpoint rollback before returning control to the application. An SQL return code of -911 is returned to the program.

Do not specify YES if the pool is used by transactions running enterprise beans as part of an OTS transaction; CICS syncpoint rollback is not allowed in an OTS transaction. Consider defining a DB2ENTRY which specifies DROLLBACK(NO) for use by transactions which run enterprise beans as part of an OTS transaction.

**NO** The attachment facility does not initiate a rollback for a transaction. An SQL return code of -913 is returned to the application.

**PLAN**
Specifies the name of the plan to be used for all pool threads. If PLAN is specified, PLANEXITNAME may not be specified.

**PLANExitname**
Specifies the name of the dynamic plan exit to be used for pool threads. If you change the PLAN and PLANEXITNAME while there are active transactions for the pool, the next time the transaction releases the thread the plan/exit will be determined using the new rules. If PLANEXITNAME is specified, PLAN may not be specified.

Specifies the priority of the pool thread subtasks relative to the CICS main task (OR TCB).

**HIGH** Subtasks attain a higher priority than the CICS main task from which the subtask was generated.

**EQUAL** Subtasks have equal priority with the CICS main task.

**LOW** Subtasks have a lower priority than the CICS main task.

**THREADLimit**
Specifies the current maximum number of pool threads that the CICS DB2 attachment facility allows to be active before requests are made to wait or are rejected (subject to the THREADWAIT parameter). The default threadlimit (3) is also the minimum you can specify. The maximum value must not be greater than the value specified for TCBLIMIT.

**THREADWait**
Specifies whether or not transactions should wait for a pool thread, or be abended if the number of active pool threads reaches the thread limit.
The CICS DB2 attachment issues a unique abend code AD3T, message DFHDB2011, when THREADWAIT=NO is coded and the number of pool threads is exceeded.

YES  If all threads are busy, a transaction must wait until one becomes available. A transaction can wait as long as CICS allows it to wait, generally until a thread becomes available.

NO   If all threads are busy, the transaction is terminated with abend code AD3T.

Command thread attributes

The DB2 connection definition command thread attribute descriptions are:

COMAUTHId
Specifies what id the CICS DB2 attachment facility should use for security checking when using command threads. If COMAUTHId is specified, COMAUTHType may not be specified.

COMAUTHType
Specifies the type of id that can be used for security checking when using command threads. If COMAUTHType is specified, COMAUTHId may not be specified.

USERID
The 1 to 8-character userid associated with the CICS transaction is used as the authorization ID. The name can be up to eight characters in length. The acceptable characters are: A-Z 0-9 $ @ and #. Lowercase characters are converted to uppercase except when using the CREATE command.

When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the USERID to DB2 as the primary authorization ID and the RACF group ID to DB2 as the secondary ID. When the sample sign-on exit is used, there is no difference between COMAUTHTYPE(USERID) and COMAUTHTYPE(GROUP).

OPID
The operator identification associated with the userid that is associated with the CICS transaction sign-on facility is used as the authorization ID (three characters padded to eight).

GROUP
Specifies the 1 to 8-character USERID and the connected group name as the authorization ID.

To use the CGROUP option the CICS system must have SEC=YES specified in the CICS system initialization table (SIT).

If no RACF group ID is available for this USERID, an 8-character field of blanks is passed to DB2 as the group ID.

SIGN
Specifies that the SIGNID parameter of the DB2CONN is used as the resource authorization ID.

TERM
Specifies the terminal identification (four characters padded to eight) as an authorization ID. An authorization ID cannot be obtained in this manner if a terminal is not connected with the transaction.

If a transaction is started (using a CICS command) and has no terminal associated with it, the COMAUTHTYPE(TERM) should not be used.
DB2CDEF

TX Specifies the transaction identification (four characters padded to eight) as the authorization ID.

COMThreadlim
The number specifies the current maximum number of command threads the CICS DB2 attachment facility allows active before requests overflow to the pool.
Chapter 30. DB2 entry resource definitions

A DB2 entry definition (DB2EDEF) specifies the resources required by CICS transactions that access a DB2 subsystem via the DB2 attachment facility.

Accessing BAS DB2 entry definitions

To display information about existing DB2 entry definitions:

Issue the command:

```
DB2EDEF [resdef]
```

where resdef is the specific name of a DB2 entry definition. If you omit this parameter, the view, illustrated in Figure 35, includes information about all existing DB2 entry definitions within the current context.

Select:

DB2EDEF from the ADMRES menu.

Working with the DB2EDEF view

The topics covered in this section are:

- [Availability](#) of the DB2EDEF view
- [Action commands](#) for the DB2EDEF view
- [Hyperlink fields](#) on page 142 for the DB2EDEF view

Availability

DB2 entries can be defined for all managed CICS systems from CICS TS for OS/390 Release 2 onwards.

Action commands

Table 7 summarizes the action commands you can use with the DB2EDEF view.

**Table 7. DB2EDEF view action commands**

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a DB2 entry definition to a resource group, as described on page 43.</td>
</tr>
</tbody>
</table>
Table 7. DB2EDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of DB2 entry definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a DB2 entry definition in the data repository. The format of the resulting panel is similar to that shown in Figure 36 on page 143. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>Create</td>
<td>CRE</td>
<td>Create a DB2 entry definition and add it to the data repository, as described on page 143.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS TS for OS/390 Release 2 or later, install a DB2 entry in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a DB2 entry definition from the data repository, as described on page 81.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a DB2 entry definition in the data repository. The format of the resulting panel is similar to that shown in Figure 36 on page 143. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the DB2EDEF view.

Defining DB2 entries using BAS

To create a DB2 connection definition:
1. Issue the create primary (CREate) or line (CRE) action command from the DB2EDEF view.
2. Fill in the fields in the DB2 entry definition panel (see Figure 36 on page 143):
3. To add the DB2 connection definition to the data repository, press Enter.

**Installing BAS DB2 entry definitions**

To install a DB2 entry in an active system, issue the INS command.

After installation of a DB2EDEF resource definition, you can enquire about the resultant object using:

- The CICSpix SM DB2NTRY command; see [CICSpix System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE DB2ENTRY command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE DB2ENTRY command; see [CICS System Programming Reference](#).

**DB2 entry definition attributes**

The attributes are described in the following categories:

- "General attributes"
- "Thread selection attribute" on page 144
- "Thread operation attributes" on page 144

**General attributes**

The DB2 entry definition general attribute descriptions are:

**Name**

One to eight character name to identify a DB2 entry definition. Acceptable characters are those allowed for a transaction id.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.
DB2EDEF

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to automatically added.

User data
(Optional.) Three 8–character fields provided for any site-specific data related to the DB2 entry. CICSPlex SM makes no use of this user data.

Thread selection attribute
The DB2 entry definition thread selection attribute description is:

TRansid
Specifies the transaction id associated with the entry. Only one transaction can be specified here. However, the use of one or more wildcard characters in the TRANSID (see the CICS Resource Definition Guide) allows a group of transactions to be represented. Additional transactions can be defined for this entry by defining a DB2 transaction that refers to this DB2 entry. Transid is optional on a DB2 entry. All transactions can be associated with a DB2 entry means of DB2 transactions instead. However, if only one transaction is associated with a DB2 entry it is easier to specify it on the DB2 entry.

Note: Specifying a transaction id here causes a 'ghost' DB2 transaction object to be created when the DB2 entry definition is installed, and such DB2 transaction objects may appear on SYSRES and RDSCPROC views.

Note:

Attention: You can change the value of selected BAS objects using the Override field of a RASGNDEF object, as described in “Chapter 58. RASGNDEF (resource assignments) view” on page 335. If you use this method to change the Transid field of a DB2EDEF and there is a resulting clash of names of DB2TRAN objects, CICSPlex SM does not detect this fact as part of inconsistent set processing.

Thread operation attributes
The DB2 entry definition thread operation attribute descriptions are:

ACcountrec
Specifies the minimum amount of DB2 accounting required for transactions using this DB2 entry. The specified minimum may be exceeded, as described in the following options.

NONE No accounting records are required for transactions using threads from this DB2ENTRY

TASK The CICS DB2 attachment facility causes a minimum of one accounting record for each CICS task to be produced.

A transaction containing multiple UOWs (assuming the thread is released at syncpoint) may use a different thread for each UOW. The result may be that an accounting record is produced for each UOW.

TXID The CICS DB2 attachment facility causes an accounting record to be produced when the transid using the thread changes.
The CICS DB2 attachment facility causes an accounting to be produced for each UOW, assuming that the thread is released at the end of the UOW.

AUTHId
Specifies the id to be used for security checking when using this DB2ENTRY. If AUTHId is specified, AUTHType may not be specified.

AUTHType
Specifies the type of id that can be used for security checking when using this DB2ENTRY. If AUTHType is specified, AUTHId may not be specified.

USERID
The 1 to 8-character USERID associated with the CICS transaction is used as the authorization ID. The name can be up to eight characters in length. The acceptable characters are: A-Z 0-9 $ @ and #. Lowercase characters are converted to uppercase except when using the CREATE command.

When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the user ID to DB2 as the primary authorization ID and the RACF group ID to DB2 as the secondary ID. When the sample sign-on exit is used, there is no difference between AUTHTYPE(USERID) and AUTHTYPE(GROUP).

OPID
The operator identification that is associated with the userid that is associated with the CICS transaction sign-on facility, is used as the authorization ID (three characters padded to eight).

GROUP
Specifies the 1 to 8-character USERID and the connected group name as the authorization ID.

To use the GROUP option the CICS system must have RACF external security SEC=YES specified in the CICS system initialization table (SIT).

If no RACF group ID is available for this USERID, an 8-character field of blanks is passed to DB2 as the group ID.

SIGN
Specifies that the SIGNID parameter of the DB2CONN is used as the resource authorization ID.

TERM
Specifies the terminal identification (four characters padded to eight) as an authorization ID. An authorization ID cannot be obtained in this manner if a terminal is not connected with the transaction.

If a transaction is started (using a CICS command) and has no terminal associated with it, AUTHTYPE(TERM) should not be used.

TX
Specifies the transaction identification (four characters padded to eight) as the authorization ID.

DRollback
Specifies whether or not the CICS DB2 attachment should initiate a SYNCPOINT rollback in the event of a transaction being selected as victim of a deadlock resolution.

YES
The attachment facility issues a syncpoint rollback before returning control to the application. An SQL return code of -911 is returned to the program.
Do not specify YES if the DB2ENTRY is used by transactions running enterprise beans as part of an OTS transaction; CICS syncpoint rollback is not allowed in an OTS transaction.

NO The attachment facility does not to initiate a rollback for this transaction. An SQL return code of -913 is returned to the application.

PLAN
Specifies the name of the plan to be used for this entry. If PLAN is specified, PLANEXITNAME cannot be specified.

PLANEXITNAME
Specifies the name of the dynamic plan exit to be used for this DB2 entry definition. If you change the PLAN and PLANEXITNAME while there are active transactions for the DB2 entry definition, the next time the transaction releases the thread, the plan/exit will be determined using the new rules. If PLANEXITNAME is specified, PLAN cannot be specified.

PRiority
Specifies the priority of the thread subtasks for the DB2ENTRY relative to the CICS main task (QR TCB).

EQUAL
Subtasks have equal priority with the CICS main subtask.

HIGH Subtasks attain a higher priority than the CICS main task from which the subtask was generated.

LOW Subtasks have a lower priority than the CICS main task.

PROtectnum
Specifies the maximum number of protected threads allowed for this DB2 entry definition. A thread, when it is released by a transaction and there is no other work queued, can be protected, meaning that it is not terminated immediately. A protected thread is terminated after only two complete purge cycles if it has not been reused in the meantime. Hence, if the purge cycle is set to 30 seconds, a protected thread is terminated 30 - 60 seconds after it is released, assuming it is not reused in the meantime. The first purge cycle after the CICS DB2 attachment facility has been started is 5 minutes, after which the PURGECYCLE value is applied. Threads are only protected while they are inactive. If a transaction reuses a protected thread, the thread becomes active, and the current number of protected threads is decremented.

THREADLimit
Specifies the maximum number of threads for this DB2 entry definition that the CICS DB2 attachment allows active before requests are made to wait, are abended, or diverted to the pool.

THREADWait
Specifies whether or not transactions should wait for a DB2ENTRY thread, be abended, or overflow to the pool should the number of active DB2ENTRY threads reach the THREADLimit number.

POOL If all threads are busy, the transaction is diverted to use the pool of threads. If the pool is also busy, and NO has been specified for the THREADWAIT parameter on the DB2 connection definition, the transaction is terminated with abend code AD3T.

NO If all threads are busy, a transaction is terminated with an abend code AD2P.

YES If all threads are busy, a transaction waits until one becomes available.
Chapter 31. DB2 transaction resource definitions

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

Accessing BAS DB2 transaction definitions

To display information about existing DB2 transaction definitions:

**Issue the command:**

```
DB2TDEF [resdef]
```

where `resdef` is the specific name of a DB2 transaction definition. If you omit this parameter, the view, illustrated in [Figure 37](#), includes information about all existing DB2 transaction definitions within the current context.

**Select:**

DB2TDEF from the ADMRES menu.

---

![Table 8](#)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD <code>resdef</code> version</td>
<td>ADD</td>
<td>Add a DB2 transaction definition to a resource group, as described on page 45.</td>
</tr>
</tbody>
</table>

Figure 37. The DB2TDEF view

Working with the DB2TDEF view

The topics covered in this section are:

- "Availability" of the DB2TDEF view
- "Action commands" for the DB2TDEF view
- "Hyperlink fields" on page 148 for the DB2TDEF view

Availability

DB2 transactions can be defined for all managed CICS systems from CICS TS for OS/390 Release 2 onwards.

Action commands

Table 8 summarizes the action commands you can use with the DB2TDEF view.

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### Table 8. DB2TDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of DB2 transaction definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a DB2 transaction definition in the data repository. The format of the resulting panel is similar to that shown in Figure 38 on page 149. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a DB2 transaction definition and add it to the data repository, as described on page 148.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS TS for OS/390 Release 2 or later, install a DB2 transaction in an active system, as described on page 73.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a DB2 transaction definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a DB2 transaction definition in the data repository. The format of the resulting panel is similar to that shown in Figure 38 on page 149. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the DB2TDEF view.

### Defining DB2 transactions using BAS

To create a DB2 transaction definition:

1. Issue the create primary (CREate) or line (CRE) action command from the DB2TDEF view.
2. Fill in the fields on the DB2 transaction definition panel (see Figure 38 on page 149):
3. To add the DB2 connection definition to the data repository, press Enter.

### Installing BAS DB2 transaction definitions

To install a DB2 transaction in an active system, issue the INS command.

After installation of a DB2TDEF resource definition, you can enquire about the resultant object using:

- The CICSPlex SM DB2TRAN command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE DB2TRAN command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE DB2TRAN command; see [CICS System Programming Reference](#).

### DB2 transaction definition attributes

The DB2 transaction definition attribute descriptions are:

**Name**

The one to eight character name to identify this DB2 transaction definition. Acceptable characters are all those allowed for a transaction ID.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to automatically added.

**User data**

(Optional.) Three 8–character fields provided for any site-specific data related to the DB2 entry. CICSPlex SM makes no use of this user data.
**DB2TDEF**

**Entry**
   Specifies the name of the DB2 entry definition to which this DB2 transaction definition refers. It is the DB2 entry definition with which this additional transaction should be associated.

**Transid**
   Specifies the transaction id to be associated with the entry. If the TRANSID is not specified it defaults to the first four characters of the DB2 transaction definition name. Wildcard characters cannot be used in transaction ids.
Chapter 32. Document template resource definitions

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

Accessing BAS document template definitions

To display information about existing document template definitions:

**Issue the command:**

```
DOCDEF [resdef]
```

where `resdef` is the specific or generic name of a document template definition. If you omit this parameter, the view, illustrated in Figure 39, includes information about all existing document template definitions within the current context.

**Select:**

DOCDEF from the ADMRES menu.

![Figure 39. The DOCDEF view](image)

Working with the DOCDEF view

The topics covered in this section are:

- **Availability** of the DOCDEF view
- **Action commands** for the DOCDEF view
- **Hyperlink fields** on page 152 for the DOCDEF view

### Availability

Document templates can be defined for all managed CICS systems at CICS Transaction Server for OS/390 Version 1 Release 3 and later.

### Action commands

Table 9 on page 152 summarizes the action commands you can use with the DOCDEF view.
Table 9. DOCDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a document template definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of document template definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a document template definition in the data repository. The format of the resulting panel is similar to that shown in Figure 39 on page 151. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>CRE</td>
<td>Create a document template definition and add it to the data repository, as described on page 152.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS Transaction Server for OS/390 Version 1 Release 3 or later, install a document template in an active system, as described on page 73.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a document template definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a document template definition in the data repository. The format of the resulting panel is similar to that shown in Figure 39. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the DOCDEF view.

Defining document templates using BAS

To create a document template definition:

1. Issue the create primary (CREate) or line (CRE) action command from the DOCDEF view.
2. Fill in the fields on the document template definition panel (see Figure 40 on page 153):
3. To add the document template definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

### Installing BAS document template definitions

To install a document template in an active system, issue the INS command.

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

- The CICSPlex SM DOCTEMP command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE DOCTEMPLATE command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE DOCTEMPLATE command; see [CICS System Programming Reference](#).

### Document template definition attributes

The document template definitions attribute descriptions are:

**AppendCRLF**

specifies whether CICS is to delete trailing blanks from and append carriage-return line-feed to each logical record of the template as it is read from the PDS, FILE, TDQUEUE, or TS QUEUE.

- **YES** Carriage return/linefeed pairs should be appended, and trailing blanks should be removed.
- **NO** Carriage return/linefeed pairs should not be appended, and trailing blanks should not be removed.

**Type** Specify whether the contents of the template are binary or EBCDIC. If the type in BINARY, no parsing takes place. If the type is EBCDIC, the contents of the template are parsed as EBCDIC text.
DOCDEF

**DDname**
specifies the DDname of the PDS containing the template. The DDname applies only to a template of type PDS. If a membername is supplied without a value for DDNAME, the default value DFHHTML is used. The DDname may be up to 8 characters in length.

**Description**
You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**Name**
specifies the name of this document template definition. The name can be up to eight characters in length. The acceptable characters are: A-Z 0-9 $ @ # / - _ % & ç ? ! : | " = ¬ , ; < and >.

**Exitpgm**
specifies the exit program to be invoked when a request is made for this template. CICS passes a commarea to the exit program which is mapped by the following copybooks:
- DFHDHTXD (Assembler)
- DFHDHTXH (C)
- DFHDHTXL (PL/I)
- DFHDHTXO (COBOL)

**File**
specifies, for a template of type FILE, the 8-character name of the CICS file definition for the data set containing the template.

**Membername**
specifies the name of the member in the PDS containing the template. It applies only to a template of type PDS. The PDS is specified in the DDname attribute.

**Program**
specifies the program in which the template data is stored. CICS loads the program and takes all data after the entrypoint to be the template. The program name may be up to 8 characters in length.

**RESGROUP**
(Optional.) The name of the resource definition group to which this definition is to be automatically added.

**TDqueue**
specifies the name of the TD queue on which the template is stored.

**Templatename**
specifies the extended template name by which the document template is to be known outside the resource definition function. If no value is specified, the default is the 1- to 8-character name for the document template definition.

**TSqueue**
specifies the 1- to 16-character name of the TS queue on which the template is stored.

**Type**
specifies the format of the contents of the template.

**BINARY**
When the template is loaded from the template library, no parsing of the template’s contents is done.
**EBCDIC**

When the template is loaded from the template library, the contents are parsed as EBCDIC text.

**User data**

(Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSPlex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

**Note:** The fields EXITPGM, FILE, MEMBER, PROGRAM, TDQUEUE, and TSQUEUE define alternative sources of the template data. Only one of them may be specified on each document template definition.
Chapter 33. Enqueue model resource definitions

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

Accessing BAS enqueue model definitions

To display information about existing enqueue model definitions:

**Issue the command:**

```
ENQMDEF [resdef]
```

where `resdef` is the specific or generic name of an enqueue model definition.

If you omit this parameter, the view, illustrated in Figure 41, includes information about all existing enqueue model definitions within the current context.

**Select:**

ENQMDEF from the ADMRES menu.

![Figure 41. The ENQMDEF view](image)

Working with the ENQMDEF view

The topics covered by this section are:

- [Availability](#) of the ENQMDEF view
- [Action commands](#) for the ENQMDEF view
- [Hyperlink fields](#) on page 158 for the ENQMDEF view

Availability

Enqueue models can be defined for CICS Transaction Server for OS/390 Release 3 and later systems.

**Action commands**

Table 10 on page 158 summarizes the action commands you can use with the ENQMDEF view.
## Table 10. ENQMDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD</td>
<td>ADD</td>
<td>Add an enqueue model definition to a resource group as described on &quot;Adding a resource definition to a resource group&quot; on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of enqueue model definitions as described on Figure 6 on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a enqueue model definition in the data repository. The format of the resulting panels is similar to that shown in Figure 42 on page 159. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>CRE</td>
<td>Create a enqueue model definition and add it to the data repository, as described on page 158.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS Transaction Server for z/OS, Version 2 Release 1, install a enqueue model in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REM</td>
<td>REM</td>
<td>Remove a enqueue model definition from the data repository, as described on page 41.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a enqueue model definition in the data repository. The format of the resulting panels is similar to that shown in Figure 42. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the ENQMDEF view.

### Defining enqueue models using BAS

To create an enqueue model definition:

1. Issue the create primary (CREate) or line (CRE) action command from the ENQMDEF view.
2. Fill in the fields on the enqueue model definition panel (see Figure 42 on page 159):
3. To add the enqueue model definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

### Installing BAS enqueue model definitions

To install a enqueue model in an active system, issue the INS command.

Enqueue models forming nested generic enqueue names must be installed either in the disabled state or in order, from the most specific (for example, ABCD) to the least specific (for example, AB*). If another enqueue model with the same or a less specific nested enqueue name is already installed and enabled, the installation fails. You can install disabled enqueue models in any order, but you must enable them in order from most specific to least specific.

For example, if an enqueue model with a generic enqueue name of AB* is installed and enabled, it must be discarded or disabled before installing and enabling an enqueue model with a generic name of ABCD*.

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

- The CICSPlex SM ENQMDL command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE ENQMODEL command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE ENQMODEL command; see [CICS System Programming Reference](#).

### Enqueue model definition attributes

The enqueue model definition attribute descriptions are:
ENQMDEF

Description
You can provide a description of the resource you are defining in this field. The
description text can be up to 30 characters in length.

Name
specifies the name of this ENQMODEL definition. The name can be up to eight
characters in length. The acceptable characters are: A-Z 0-9 $ @ # ./ - % &
¢?!:|=¬, ; < and >.

This name is used to identify the ENQMODEL definition on the CSD file. It is
not used within the active CICS system.

Enqname
specifies the 1 to 255-character resource name. The acceptable characters are:
A-Z 0-9 $ @ # . / - % & ? ! : | " = ¬ , ; < and >. The * (asterisk) is treated
as a wildcard when it appears as the last character of the resource name, such
names are treated as generic.

Enqscope
specifies the optional 4-character enqueue model scope name. If omitted or
specified as blanks, matching enqueue models will have a local scope.

RESGROUP
specifies the group name, which can be up to eight characters in length. The
characters allowed are A-Z 0-9 @ # and $. Lowercase characters are treated
as uppercase characters. Do not use group names beginning with DFH,
because these characters are reserved for use by CICS.

Every resource definition must have a group name. The resource definition
becomes a member of the group and is installed in the CICS system when the
group is installed. For more information about groups, see the CICS Resource
Definition Guide.

Status
specifies whether the enqueue model is to be installed in ENABLED or
DISABLED status. ENABLED is the default.

ENABLED
The enqueue model is enabled if it is disabled. Matching enqueue
requests are processed in the normal way.

DISABLED
Matching enqueue requests are rejected, and the issuing task is
abended. Matching INSTALL CREATE and DISCARD requests are
processed.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to
the DB2 entry. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave
blank for CICSPlex SM to assign the first available version id in the range 1
through 15.
Chapter 34. FEPI node list resource definitions

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

Accessing BAS FEPI node list definitions

To display information about existing FEPI node definitions:

Issue the command:

```
FENODDEF [resdef]
```

where `resdef` is the specific or generic name of a FEPI node definition. If you omit this parameter, the view, illustrated in Figure 43, includes information about all existing FEPI node definitions within the current context.

Select:

FENODDEF from the ADMRES menu.

![Table 11 on page 162 summarizes the action commands you can use with the FENODDEF view.](image)
Table 11. FENODDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a FEPI node definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of FEPI node definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a FEPI node definition in the data repository. The format of the resulting panel is similar to that shown in Figure 44 on page 163. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a FEPI node definition and add it to the data repository, as described on page 162.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS/ESA 4.1 and later, and CICS for OS/2 3.1 and later, install a FEPI node in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a FEPI node definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a FEPI node definition in the data repository. The format of the resulting panel is similar to that shown in Figure 44. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the FENODDEF view.

Defining FEPI node lists using BAS

To create a FEPI node list definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FENODDEF view.
2. Fill in the fields on the FEPI node list definition panel (see Figure 44 on page 163).
Note: When you use FENODDEF, the FEPI node list definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal; the fields are shown in one list for convenience.

Note: Each node must have one password entry.

3. To add the FEPI node list definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS FEPI node list definitions

To install a FEPI node in an active system, issue the INS command.

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

- The CICSPlex SM FENODE command; see [CICSPlex System Manager Operations Views Reference](http://www.ibm.com)

---

### Figure 44. Creating a FEPI node definition

Note: When you use FENODDEF, the FEPI node list definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal; the fields are shown in one list for convenience.

Note: Each node must have one password entry.

3. To add the FEPI node list definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.
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 node list definition attributes**

Provide the following information, as appropriate:

- **Name** Specify a 1- to 8-character name for the FEPI node definition.
- **Version** (Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
- **Description** (Optional.) Specify a 1- to 30-character description of the file.
- **RESGROUP** (Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.
- **User Data** (Optional.) Three 8-character fields provided for any site-specific data related to the file. CICSPlex SM makes no use of this user data.
- **PropertySet** Specify the 1- to 8-character name of the set of properties for the FEPI node.
- **Acquire Status** Specify the initial acquire state of the nodes being installed. All nodes listed have the same initial state. The options are:
  - **ACQUIRED** The VTAM ACB for the node is to be opened and ‘set logon start’ is to be done.
  - **RELEASED** The VTAM ACB for the node is not be opened.
- **Service Status** Specify the initial service state of the nodes being installed. All nodes listed will have the same initial state. The options are:
  - **INSERVICE** The nodes are in service and can be used in a conversation.
  - **OUTSERVICE** The nodes are not in service and cannot be used for any conversations.
- **Node** Specify further 8-character node names to be installed. You can specify a maximum of 64 node names.
- **Password** Specify 8-character passwords. The passwords must correspond with a name in the node list. You can specify up to 64 passwords.
Chapter 35. FEPI pool resource definitions

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

Accessing BAS FEPI pool definitions

To display information about existing FEPI pool definitions:

Issue the command:

```
FEPOODEF [resdef]
```

where `resdef` is the specific or generic name of a FEPI pool definition. If you omit this parameter, the view, illustrated in Figure 45, includes information about all existing FEPI pool definitions within the current context.

Select:

FEPOODEF from the ADMRES menu.

Working with the FEPOODEF view

The topics covered by this section are:

- "Availability" of the FEPOODEF view
- "Action commands" for the FEPOODEF view
- "Hyperlink fields" on page 166 for the FEPOODEF view

Availability

FEPI pools can be defined for CICS/ESA 4.1 and later systems, and CICS for OS/2 3.1 and later systems.

Action commands

Table 12 on page 166 summarizes the action commands you can use with the FEPOODEF view.
## Table 12. FEPOODEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD <code>resdef version</code></td>
<td>ADD</td>
<td>Add a FEPI pool definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of FEPI pool definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a FEPI pool definition in the data repository. The format of the resulting panel is similar to that shown in Figure 46 on page 167. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a FEPI pool definition and add it to the data repository, as described on page 166.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS/ESA 4.1 and later, and CICS for OS/2 3.1 and later, install a FEPI pool in an active system, as described on page 65.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove <code>resdef version</code></td>
<td>REM</td>
<td>Remove a FEPI pool definition from the data repository, as described on page 51.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a FEPI pool definition in the data repository. The format of the resulting panel is similar to that shown in Figure 46. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the FEPOODEF view.

### Defining FEPI pools using BAS

To create a FEPI pool definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FEPOODEF view.
2. Fill in the fields on the FEPI pool definition panel (see Figure 46 on page 167):
Note: When you use FEPOODEF, the FEPI pool definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal. Figure 46 shows the FEPI pool definition fields in one list for convenience.

3. To add the FEPI pool definition to the data repository, press Enter. Otherwise, issue one of the other command available from this panel.

Figure 46. Creating a FEPI pool definition
Installing BAS FEPI pool definitions

To install a FEPI pool in an active system, issue the INS command.

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

- The CICSPlex SM FEPOOL command; see CICSPlex System Manager Operations Views Reference.
- The CICS CEMT INQUIRE FEPOOL command; see CICS Front End Programming Interface User's Guide.
- There is no EXEC CICS INQUIRE command for FEPI pool definitions.

FEPI pool definition attributes

Provide the following information, as appropriate:

**Name** Specify a 1- to 8-character name for the FEPI pool definition.

**Version**
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

**Description**
(Optional.) Specify a 1- to 30-character description of the file.

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**User Data**
(Optional.) Three 8-character fields provided for any site-specific data related to the file. CICSPlex SM makes no use of this user data.

**PropertySet**
Specify the 1- to 8-character name of the set of properties for the FEPI pool. If you leave this field blank, a picklist of defined FEPI property set definitions is displayed; see Figure 47.

```
COMMAND ===> 
FEPI PropertySet Name requires a specific resource.
Select a single entry, change the key, or enter END or CANCEL to terminate.

Resources matching key

<table>
<thead>
<tr>
<th>C Name</th>
<th>Ver Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPROPI</td>
<td>1 FEPI Property Set 1</td>
<td>FEPRODEF</td>
</tr>
<tr>
<td>FPROPI</td>
<td>2 FEPI Property Set 2</td>
<td>FEPRODEF</td>
</tr>
<tr>
<td>FPROPI</td>
<td>3 FEPI Property Set 3</td>
<td>FEPRODEF</td>
</tr>
<tr>
<td>FPROPI</td>
<td>4 FEPI Property Set 4</td>
<td>FEPRODEF</td>
</tr>
<tr>
<td>FPROPI</td>
<td>5 FEPI Property Set 5</td>
<td>FEPRODEF</td>
</tr>
</tbody>
</table>

************************************************************************ Bottom of data **************************************************************************
```

Figure 47. List of FEPI property set definitions
Select a property set from the list and press enter to return to the definition panel.

**Acquire Status**
Specify the initial acquire state of the connections being created. All new connections will have the same initial state. The options are:

- **ACQUIRED**
  The connections are to have sessions established.

- **RELEASED**
  The connections are not to have sessions established.

**Service Status**
Specify the initial service state of the pool being installed and the connections being created. All new connections will have the same initial state. The options are:

- **INSERVICE**
  The pool and any connections are in service and can be used in a conversation.

- **OUTSERVICE**
  The pool and any connections are not in service and cannot be used for any conversations.

**NodeList**
Specify 8–character node names to be used to create new connections in the pool. You can specify a maximum of 128 node names.

**TargetList**
Specify 8–character target names used to create new targets in the pool. You can specify up to a maximum of 32 target names.
FEPOODEF
Chapter 36. FEPI property set resource definitions

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

Accessing BAS FEPI property set definitions

To display information about existing FEPI property set definitions:

**Issue the command:**

```
FEPRODEF [resdef]
```

where **resdef** is the specific or generic name of a FEPI property set definition. If you omit this parameter, the view, illustrated in Figure 48, includes information about all existing FEPI property set definitions within the current context.

**Select:**

FEPRODEF from the ADMRES menu.

```
26FEB2001 11:30:30 -------- INFORMATION DISPLAY -------------------------
COMMAND ===>SCROLL ===> PAGE 
CURR WIN ===>1 ALT WIN ===> 
W1 ==FEPRODEF======EYUPLX01=EYUPLX01===26FEB2001==11:30:30=CPSM======3==
CMD Name Ver Created Changed Description
--- ------- --- -------------- -------------- ------------------------
EYUFES01 1 5/01/99 10:02 5/01/99 10:02 FEPI property set 1 
EYUFES02 2 5/01/99 10:14 5/01/99 14:33 FEPI property set 2 
EYUFES03 1 5/01/99 10:06 7/01/99 10:06 FEPI property set 3 
```

*Figure 48. The FEPRODEF view*

Working with the FEPRODEF view

The topics covered in this section are:

- "Availability" of the FEPRODEF view
- "Action commands" for the FEPRODEF view
- "Hyperlink fields" on page 172 for the FEPRODEF view

**Availability**

FEPI property sets can be defined for CICS/ESA 4.1 and later systems, and CICS for OS/2 3.1 and later systems.

**Action commands**

Table 13 on page 172 summarizes the action commands you can use with the FEPRODEF view.
<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a FEPI property set definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of FEPI property set definitions, as described on page 57.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a FEPI property set definition in the data repository. The format of the resulting panels is similar to that shown in Figure 49 on page 173. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a FEPI property set definition and add it to the data repository, as described on page 182.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS/ESA 4.1 and later, and CICS for OS/2 3.1 and later, install a FEPI property set in an active system, as described on page 73.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a FEPI property set definition from the data repository, as described on page 61.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a FEPI property set definition in the data repository. The format of the resulting panels is similar to that shown in Figure 49. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

**Hyperlink fields**

There are no hyperlink fields in the FEPRODEF view.

**Defining FEPI property sets using BAS**

To create a FEPI property set definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FEPRODEF view.
2. Fill in the fields on the FEPI property set definition panel (see Figure 49 on page 173):
3. To add the FEPI property set definition to the data repository, press Enter. If you want to specify more nodes and target names, issue the DOWN command.

### Installing BAS FEPI property set definitions

To install a FEPI property set in an active system, issue the INS command.

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

- The CICSPlex SM FEPROP command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE FEPROPSET command; see [CICS Front End Programming Interface User's Guide](#).
- There is no EXEC CICS INQUIRE command for FEPI property set definitions.

### FEPI property set definition attributes

Provide the following information, as appropriate:

**Name**
Specify a 1- to 8-character name for the FEPI property set definition.

**Version**
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

**Description**
(Optional.) Specify a 1- to 30-character description of the FEPI property set.

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.
**FPRODEF**

**User Data**
(Optional.) Three 8-character fields provided for any site-specific data related to the FEPI property set. CICSPlex SM makes no use of this user data.

**Begin Session**
(Optional.) Specify the name of the transaction that will perform begin-session processing, immediately after a session has been established. If this option is omitted, there is no user-supplied begin-session processing.

**Contestion**
Specify what is to happen when an EXEC CICS FEPI SEND command is issued and there is inbound data with begin-bracket. The options are:

- **LOSE**  The EXEC CICS FEPI SEND command fails; an EXEC CICS FEPI RECEIVE command must be issued to get the inbound data.
- **WIN**   The EXEC CICS FEPI SEND commands succeeds; inbound data is rejected with a negative response.

**Device**
Specify the LU mode and the device type that is to be simulated. The options are:

- T3278M2
- T3278M3
- T3278M4
- T3278M5
- T3279M2
- T3279M3
- T3279M4
- T3279M5
- TPS55M2
- TPS55M3
- TPS55M4
- LUP

**End Session**
(Optional.) Specify the name of the transaction that will perform end-session processing, either when a conversation is ended or when a session is to be ended. If this option is omitted, there is not user-supplied end-session processing.

**Exception Q**
Specify the name of the transient data queue to which pool-specific exceptional events are to be notified. If this option is omitted, there is no used-supplied exceptional event queue processing.

**FJournalNum**
(Optional.) Specify the number of the journal where data is to be logged, in the range 1 (the default) through 99. If the value is 0 (zero) or omitted, no journaling is done.

**FJournalName**
(Optional.) Specify the name of the journal where data is to be logged. If the value is omitted, no journaling is done.

**Format**
Specify, for SLU2 mode, the data mode to be used. The options are:
Formatted operations. Character attributes are not supported on outbound data and ignored on inbound data.

Data stream operation.

**Initial Data**
Specify whether initial inbound data is expected when a session is started. The options are:

- **NOTINBOUND**
  No inbound data is expected.

- **INBOUND**
  Inbound data is expected.

**MAXLength**
Specify the maximum length of data that can be returned on any FEPI RECEIVE, CONVERSE, or EXTRACT FIELD command for a conversation, or that can be sent by any FEPI SEND or CONVERSE command for a conversation. This value helps FEPI use storage in a more efficient manner, so should be set no larger than necessary. It must be in the range 128 through 1048576. If this value is omitted, the default value 4096 is used.

**MsgJrnl**
Specify the required journaling of data to and from the back-end system. The options are:

- **NOMSGJRNL**
  No journaling.

- **INPUT**
  Journal inbound data.

- **OUTPUT**
  Journal outbound data.

- **INOUT**
  Journal inbound and outbound data.

**STSN**
(Optional.) Specify the name of the transaction to be started to handle 'set and test sequence number', for SLU P mode only. If this value is omitted, there is no user-supplied STSN handling; FEPI handles STSN automatically.

**UnSolicited Data**
(Optional.) Specify the name of the transaction that will handle unsolicited data. If no transaction name is specified, there is no user-supplied processing of unsolicited data. FEPI treats unsolicited data as specified in the InSolicited Ack field. The UnSolicited Data and UnSolicited Ack fields are mutually exclusive.

**UnSolicited Ack**
(Optional.) Specify the acknowledgement FEPI is to give if there is to be no unsolicited data processing. The options are:

- **NEGATIVE**
  Negative response X'0813'; BID is not accepted.

- **POSITIVE**
  Positive response, BID is accepted and subsequent data is accepted and discarded.
If this option is omitted, unsolicited data is handled by the transaction specified in the UnSolicited Data field. The UnSolicited Data and UnSolicited Data Ack fields are mutually exclusive.

If the FEPI property set definition is complete, press Enter. If you want to specify more nodes and target names, issue the DOWN command.
Chapter 37. FEPI target list resource definitions

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

Accessing BAS FEPI target list definitions

To display information about existing FEPI target definitions:

Issue the command:

```
FETRGDEF [resdef]
```

where `resdef` is the specific or generic name of a FEPI target definition. If you omit this parameter, the view, illustrated in Figure 50, includes information about all existing FEPI target definitions within the current context.

Select:

FETRGDEF from the ADMRES menu.

```
26FEB2001 11:30:30 -------- INFORMATION DISPLAY ---------------------
COMMAND ===>SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===> W1 ==FETRGDEF=======EYUPLX01=EYUPLX01==26FEB2001==11:30:30=CPSM======3==
CMD Name Ver Created Changed Description
--- ------- --- -------------- -------------- ------------------------
EYUFET01 1 5/01/99 10:02 5/01/99 10:02 FEPI Target 1
EYUFET02 2 5/01/99 10:14 5/01/99 14:33 FEPI Target 2
EYUFET03 1 5/01/99 10:06 7/01/99 10:06 FEPI Target 3
```

Figure 50. The FETRGDEF view

Working with the FETRGDEF view

The topics covered by this section are:

- [Availability](#) of the FETRGDEF view
- [Action commands](#) for the FETRGDEF view
- [Hyperlink fields](#) on page 178 for the FETRGDEF view

Availability

FEPI targets can be defined for CICS/ESA 4.1 and later systems, and CICS for OS/2 3.1 and later systems.

Action commands

Table 14 on page 178 summarizes the action commands you can use with the FETRGDEF view.
### Table 14. FETRGDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a FEPI target definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of FEPI target definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a FEPI target definition in the data repository. The format of the resulting panels is similar to that shown in Figure 51 on page 179. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate CRE</td>
<td>CRE</td>
<td>Create a FEPI target definition and add it to the data repository, as described on page 178.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS/ESA 4.1 and later, and CICS for OS/2 3.1 and later, install a FEPI target in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a FEPI target definition from the data repository, as described on page 51.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a FEPI target definition in the data repository. The format of the resulting panel is similar to that shown in Figure 51. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the FETRGDEF view.

### Defining FEPI target lists using BAS

To create a FEPI target list definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FETRGDEF view.
2. Fill in the fields on the FEPI target list definition panel (see Figure 51 on page 179):
Note: The FEPI target list definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal. Figure 51 shows the FEPI node list definition fields in one list for convenience.

3. To add the FEPI property set definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

Figure 51. Creating a FEPI target definition

Installing BAS FEPI target list definitions

To install a FEPI target in an active system, issue the INS command.

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

- The CICSplex SM FETRGT command; see CICSplex System Manager Operations Views Reference.
The CICS CEMT INQUIRE FETARGET command; see CICS Front End Programming Interface User’s Guide.

There is no EXEC CICS INQUIRE command for FEPI target list definitions.

---

**FEPI target definition attributes**

Provide the following information, as appropriate:

**Name**
Specify a 1- to 8-character name for the FEPI target definition.

**Version**
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

**Description**
(Optional.) Specify a 1- to 30-character description of the file.

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**User Data**
(Optional.) Three 8-character fields provided for any site-specific data related to the file. CICSPlex SM makes no use of this user data.

**Service Status**
Specify the initial service state of the pool being installed and the connections being created. All new connections will have the same initial state. The options are:

**INSERVICE**
The pool and any connections are in service and can be used in a conversation.

**OUTSERVICE**
The pool and any connections are not in service and cannot be used for any conversations.

**TargetList**
Specify 8-character target names to be installed. A target name is the logical FEPI front-end name of a back-end system. You can specify up to maximum of 64 target names.

**VTAM Applids**
Specify 8-character VTAM application names of the back-end CICS or IMS™ systems with which FEPI applications are to communicate; they must correspond one-to-one with the names in the target list. You can specify up to 64 VTAM applications.
Chapter 38. File resource definitions

File definitions describe the physical and operational characteristics of files.

Accessing BAS file definitions

To display information about existing file definitions:

Issue the command:

```
FILEDEF [resdef]
```

where `resdef` is the specific or generic name of a file definition. If you omit this parameter, the view, illustrated in Figure 52, includes information about all existing file definitions within the current context.

Select:

FILEDEF from the ADMRES menu.

Working with the FILEDEF view

The topics covered by this section are:

- [Availability](#) of the FILEDEF view
- [Action commands](#) for the FILEDEF view
- [Hyperlink fields](#) on page 182 for the FILEDEF view

Availability

Files can be defined for all managed CICS systems.

Action commands

Table 15 summarizes the action commands you can use with the FILEDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD <code>resdef</code> version</td>
<td>ADD</td>
<td>Add a file definition to a resource group, as described on page 183.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of file definitions, as described on page 27.</td>
</tr>
</tbody>
</table>

![Figure 52. The FILEDEF view](image-url)
<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a file definition in the data repository. The format of the resulting panels is similar to that shown in Figure 53 on page 183 through Figure 55 on page 184. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a file definition and add it to the data repository, as described on page 182.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a file in an active system, as described on page 76.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a file definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a file definition in the data repository. The format of the resulting panels is similar to that shown in Figure 53 through Figure 55 on page 184. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

**Hyperlink fields**

There are no hyperlink fields in the FILEDEF view.

**Defining files using BAS**

To create a file definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FILEDEF view.
2. Fill in the fields on the first file definition panel (see Figure 53 on page 183):
3. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second file definition panel (see Figure 54):

Figure 53. Creating a file definition - Page 1

5. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

6. Fill in the fields in the third file definition panel (see Figure 55 on page 184):

Figure 54. Creating a file definition - Page 2
7. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

8. Fill in the fields on the fourth file definition panel (see Figure 56):

![Figure 55. Creating a file definition - Page 3](image)

9. To add the file definition to the data repository, press Enter. To continue creating a file definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

10. Fill in the fields on the fifth file definition panel (see Figure 57 on page 185):
11. To continue creating a file definition:
   - For all systems other than CICS for OS/2 systems, go to step 13.
   - For CICS for OS/2 systems only, issue the DOWN command.

12. Fill in the fields on the sixth file definition panel (see Figure 58):

<table>
<thead>
<tr>
<th>COMMAND ====&gt;</th>
<th>EYUFIL08</th>
<th>Version ====&gt; 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>EYUFIL08</td>
<td>Version</td>
</tr>
<tr>
<td>RECOVERY PARAMETERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recovery</td>
<td>NONE</td>
<td>Type of recovery (NONE, ALL, BACKOUTONLY)</td>
</tr>
<tr>
<td>Fwrecovlog</td>
<td></td>
<td>Journal Name used for recovery (NO, 1-99, blank)</td>
</tr>
<tr>
<td>Backuptype</td>
<td>STATIC</td>
<td>CICS VSAM file backup type (STATIC, DYNAMIC)</td>
</tr>
<tr>
<td>SECURITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ressecnum</td>
<td></td>
<td>Resource security value (0-24, PUBLIC, blank)</td>
</tr>
</tbody>
</table>

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

Figure 57. Creating a file definition - Page 5

13. To add the file definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

### Installing BAS file definitions

To install a file in an active system, issue the INS command.

After installation of a FILEDEF resource definition, you can enquire about the resultant object using:
The CICSplex SM FILE command; see CICSPlex System Manager Operations Views Reference.

The CICS CEMT INQUIRE FILE command; see CICS Supplied Transactions.

The EXEC CICS INQUIRE FILE command; see CICS System Programming Reference.

File definition attributes

The file definition attribute descriptions are:

Add
specifies whether records can be added to the file.

Backuptype
CICS VSAM files can be defined as eligible for backup while open for update.
Possible values are:

DYNAMIC
Specify this along with the RECOVERY attribute of ALL to make the file eligible for backup while open for update.

STATIC
The file is not eligible for backup while open for update.

Browse
specifies whether records can be retrieved sequentially from the file.

Cfdtpool
specifies the name of the coupling facility data table pool containing the table defined by this file definition.
This attribute is required if you specify TABLE(CF).

Databuffers
specifies the number of buffers to be used for data. Use a value in the range 2 (the default) through 32767. The minimum value you may specify is one more than the number of strings defined in the STRINGS attribute. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Delete
specifies whether records can be deleted from the file.

Description
You can provide a description of the resource you are defining in this field. The DESCRIPTION text can be up to 30 characters in length. There are no restrictions on the characters that you may use. However, if you use parentheses, ensure that for each left parenthesis there is a matching right one. If you use the CREATE command, for each single apostrophe in the text, code two apostrophes.

Disposition
specifies the disposition of this file.

OLD
Equivalent to the DISP=OLD parameter in JCL.

SHARE
Equivalent to the DISP=SHR parameter in JCL.

Dsname
specifies the data set name (as known to the operating system) to be used for this file. DSNAME can be 1 through 44 characters, conforming to the rules for
MVS data set names (see the DSNAME parameter in the OS/390 MVS JCL Reference). The characters allowed are A-Z 0-9 @ $ and -. Lowercase characters are treated as uppercase characters. For CICS for OS/2 files, you can specify up to 60 characters, including the path and file name.

**Dsnsharing**

specifies whether VSAM data set name sharing is used for the VSAM file. The possible values are:

- **ALLREQS**
  - Data set name sharing is set in the ACB when the file is opened and is therefore used for all file requests.

- **MODIFYREQS**
  - Data set name sharing is set in the ACB when the file is opened only if an operation of DELETE, ADD, or UPDATE is set for the file.

**Name**

specifies the name of the file. The name can be up to eight characters in length. The acceptable characters are: A-Z 0-9 $ @ and #. Lowercase characters are converted to uppercase except when using the CREATE command.

**Fwdrecovery**

For files with a Recovery value of ALL, specify which journal you want the after images for forward recovery written to:

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**RESGROUP**

specifies the group name, which can be up to eight characters in length. The characters allowed are A-Z 0-9 @ and $.

**Indexbuffers**

specifies the number of buffers to be used for the index. Use a value in the range 1 through 32767. The minimum value you may specify is the number of strings defined in the STRINGS attribute. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Jnladd**

specifies the add operations you want recorded on the journal nominated by the JOURNAL attribute. Possible values are:

- **AFTER**
  - Journal the file control write operation after the VSAM I/O operation.

- **ALL**
  - Journal the file control write operation both before and after the VSAM I/O operation has completed.

- **BEFORE**
  - Journal the file control write operation before the VSAM I/O operation.

- **NONE**
  - Do not journal add operations.

**Jnlread**

specifies the read operations you want recorded on the journal nominated by the JOURNAL attribute. Possible values are:

- **ALL**
  - Journal all read operations.

- **NONE**
  - Do not journal read operations.
FILEDEF

READONLY
Journal only READ ONLY operations (not READ UPDATE operations).

UPDATEONLY
Journal only READ UPDATE operations (not READ ONLY operations).

JnlSyncRead
specifies whether you want the automatic journaling records, written for READ operations to the journal specified by JOURNAL, to be written synchronously or asynchronously.

JnlSyncWrite
specifies whether you want the automatic journaling records, written for WRITE operations to the journal specified by JOURNAL, to be written synchronously or asynchronously.

JnlUpdate
specifies whether you want REWRITE and DELETE operations recorded on the journal nominated by the JOURNAL attribute.

Journal
specifies whether you want automatic journaling for this file. The journaled data is in the format of the VSAM record and is used for user controlled journaling. Possible values are:

NO No automatic journaling is to take place for this file.

number
The number that identifies the journal that CICS is to use for the autojournal. CICS journal names are of the form DFHJnn, where nn is in the range 1 through 99. A value of 1 identifies the journal as the CICS system log.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Keylength
specifies the length in bytes of the logical key of records in remote files, in the range 1 through 255.

There is no default value for this attribute. If KEYLENGTH is not defined here, the length option must be specified on file control API commands in the application programs that refer to this file.

Load
specifies whether the coupling facility data table is to be loaded from a source data set when first opened.

NO Means the coupling facility data table does not require loading from a source data set; it is fully usable by application programs as soon as it is open. The table is loaded by the application programs that use it, which is the default method for a coupling facility data table.

YES Means the coupling facility data table has to be loaded from a source data set before it is fully usable; the application programs that use this coupling facility data table rely on it containing the records from a source data set. Loading does not have to be completed before data can accessed.

Ensure that the value for this attribute is the same throughout the sysplex in all file definitions that reference the same coupling facility data table.
Lsrpoolid

specifies the identity of the local shared resource pool. The default value for
LSRPOOLID is 1, unless a value has been specified for the NSRGROUP
attribute, in which case the default value for LSRPOOLID is NONE.

NONE

Specifies that the data set associated with this file uses VSAM
nonshared resources (NSR).

1–8

The value, in the range 1 through 8, identifies the number of the VSAM
shared resource pool that is used by the VSAM data set associated
with this file. The data set is defined as using VSAM local shared
resources (LSR). You are recommended to define the buffers, strings,
and other resources explicitly in an LSRPOOL resource definition that
corresponds to this LSRPOOLID.

If you leave this field blank, CICSPlex SM uses the default value for your CICS
environment, if there is one.

Maxnumrecs

For CICS and USER tables, specify the maximum number of entries in the data
table, in the range 16 through 16777215. If you leave this field blank, there is
no default value.

Nsrgroup

For files referencing data sets that use VSAM non-shared resources (NSR),
specify a 1- to 8-character symbolic name to group together file definitions that
refer to the same VSAM base data set.

Opentime

specifies when the file is opened. Possible values are:

FIRSTREF

The file remains closed until a request is made to open it by:

- A master terminal command
- An EXEC CICS SET FILE OPEN command in an application
  program
- An implicit open

STARTUP

The file is opened immediately after CICS initialization by an
automatically initiated CICS transaction (CSFU), unless the status of the
file is UNENABLED when the file is left closed.

Password

specifies the 1-to 8-character password that is used to verify user access to the
file.

The password does not appear while you are typing it and it is not displayed on
the update or browse panel. If you specify a password, the Password field
appears highlighted on the update and browse panels to indicate a password
exists; the field itself contains blanks. You can use the update panel to change
an existing password or add a new password.

Read

specifies whether records on this file can be read.

Readintegrity

specifies the level of read integrity required for files defined with
RLSACCESS(YES).
FILEDEF

CONSISTENT
The record is read with consistent read integrity.

CONSISTENT is valid only if you also specify RLSACCESS(YES)—the resource definition is rejected with an error if you specify CONSISTENT for a non-RLS file.

REPEATABLE
The record is read with repeatable read integrity.

UNCOMMITTED
The record is read without read integrity.

Notes:
1. UNCOMMITTED is the same level of integrity that is provided by those releases of CICS that do not support the READINTEG attribute.

Recordformat
specifies the format of the records on the file.

F The records are fixed length.
V The records are variable length.

Recordsize
specifies the maximum length in bytes of records in a remote file. The size specified can be in the range 1 through 32767.

Recovery
specifies the type of recovery required for the file.

ALL Log before images to the system log, and after images to the journal specified in the Fwdrecovlog attribute.

BACKOUTONLY Log before images to the system log.

NONE No recovery logging for this file.

Remotename
(Optional.) specifies, if the file resides on a remote system, the name by which this file is known in the system or region in which it is resident. The name can be up to eight characters in length.

RemoteSystem
(Optional.) specifies, if the file resides on a remote system, the name of the connection that links the target (local) system to the related (remote) system where the file resides. If this parameter is not supplied, RemoteSystem is derived directly from the CICS system id of the related system, and the connection that links the target system to the related system must have the same name as the CICS system id of the related system.

Ressecnum
For CICS/ESA 3.3 system, specifies the resource security value to be associated with the file:

0 Transactions with RSL checking specified are not allowed to access the file.

value A resource security value, in the range 1 through 24.

PUBLIC Any transaction is allowed to access the file.
Rlsaccess
  specifies whether CICS is to open the file in RLS mode.

  NO     The file is not to be opened in RLS mode.
  YES    The file is to be opened in RLS mode.

Status
  specifies the initial status of the file following a CICS initialization with
  START=COLD or START=INITIAL.

  DISABLED
    Any request against this file from a command-level application program
    causes the DISABLED condition to be passed to the program.

  ENABLED
    Normal processing is allowed against this file.

  UNENABLED
    This prevents the file being opened by an implicit open from an
    application program.

Strings
  specifies the number, in the range 1 through 255, of concurrent requests that
  can be processed against the file.

  If you leave this field blank, CICSPlex SM uses the default value for your CICS
  environment, if there is one.

Table
  specifies the type of data table that you require.

  CICS    A CICS-maintained data table. This automatically reflects all
          modifications made to the table in its source data set. If you specify
          CICS, also specify:
          - LSRPOOLID with a value of 1 through 8
          - MAXNUMRECS with the value you require.
  NO      Data table not required.
  USER    A user-maintained table. This remains independent of its source data
          set, and changes to the user-maintained table are not reflected in
          corresponding source data set. If you specify USER, also specify:
          - LSRPOOLID with a value of 1 through 8
          - RECORDFORMAT as VARIABLE (or let this default to VARIABLE)
          - MAXNUMRECS with the value you require.

Tablename
  specifies the name of the coupling facility data table that is accessed through
  this file definition.

  If you omit this attribute when TABLE(CF) is specified, it defaults to the name
  specified for the FILE.

User data
  (Optional.) Three 8-character fields provided for any site-specific data related to
  the DB2 entry. CICSPlex SM makes no use of this user data.

Update
  specifies whether records on this file can be updated.

  specifies the type of update model to be used for a coupling facility data table.
LOCKING specifies that the CFDT is updated using the locking model.

CONTENTION specifies that the CFDT is updated using the contention model.

The value for this attribute must be the same throughout the sysplex in all file definitions that reference the same coupling facility data table.

User data (Optional.) Three 8-character fields provided for any site-specific data related to the DB2 entry. CICSPlex SM makes no use of this user data.

Version (Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

Attributes required only for systems running CICS for OS/2 2.0.1 and later are:

File Open Specify Y or N to indicate whether the file should be opened when CICS for OS/2 is started. If you leave this field blank, CICSPlex SM uses the default value for CICS for OS/2, if there is one.

File Enabled Specify Y or N to indicate whether the file should be accessible to transactions. If you leave this field blank, CICSPlex SM uses the default value for CICS for OS/2, if there is one.

File Type Identify the type of file:
E Entry-sequenced.
K Key-sequenced.
R Relative-record.
A Alternate index, for a KSDS or ESDS base file.

If you leave this field blank, CICSPlex SM uses the default value for CICS for OS/2, if there is one.

File Access Identify the type of access method:
R Recoverable. The files and resources are backed out.
U Unrecoverable. The files and resources are not backed out. This access type is not valid for alternate index files.
O Read-only.

If you leave this field blank, CICSPlex SM uses the default value for CICS for OS/2, if there is one.

Base File Name For alternate index files, specify the 1- to 8-character name of the base file. The base file must be defined in the FCT as either a key-sequenced (KSDS) or entry-sequenced (ESDS) file.

Key Number For alternate index files, specify the 2-digit number of the key to be used to
access the base file. This number must match the key number generated by
CICS for OS/2 in the Key Num field of the file key segment definition
(FSEGDEF).

**Min Record Len**
The minimum length, in bytes, of records in the file, in the range 1 through
4090. This value should be less than the CI Size value.

**Max Record Len**
The maximum length, in bytes, of records in the file, in the range 1 through
32767. The maximum allowable length varies by file type:

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>N/A</td>
</tr>
<tr>
<td>E</td>
<td>32762 bytes</td>
</tr>
<tr>
<td>K</td>
<td>32767 bytes</td>
</tr>
<tr>
<td>R</td>
<td>Minimum record length</td>
</tr>
</tbody>
</table>

**CI Size**
The size of the control interval in bytes, in the range 512 through 4096. This
field is not valid for alternate index files.

**Ext File Mgr**
Specify Y or N to indicate whether an external file manager is to be used. If you
specify Y, the name of the external file manager must be defined in the
CICS for OS/2 SIT.

**FSEG Def Name**
Specify the 1- to 8-character name of the file key segment definition
(FSEGDEF) that you want to use with this file definition.

**FSEG Def Ver**
Specify the version number of the file key segment definition (FSEGDEF) that
you want to use with this file definition, in the range 0 through 15.
Chapter 39. File key segment resource definitions

File key segment definitions describe the parts of an OS/2 file record that are to be used as the record key. Key segments are valid only for:

- Entry-sequenced files (type E)
- Key-sequenced files (type K)

Key segments are not valid for:

- Alternate index files (type A)
- Relative-record files (type R)
- Remote files

Accessing BAS file segment definitions

To display information about existing file key segment definitions, issue the command:

```
FSEGDEF [resdef]
```

where `resdef` is the specific or generic name of a file key segment definition. If you omit this parameter, the view, illustrated in Figure 59, includes information about all existing file key segment definitions within the current context.

Select:

FSEGDEF from the ADMRES menu.

![Image of the FSEGDEF view]

Figure 59. The FSEGDEF view

Working with the FSEGDEF view

Topics covered by this section are:

- "Availability" of the FSEGDEF view
- "Action commands" on page 196 for the FSEGDEF view
- "Hyperlink fields" on page 196 for the FSEGDEF view

Availability

File key segments can be defined for systems running CICS for OS/2 2.0.1 and later.
FSEGDEF

Action commands

Table 16 summarizes the action commands you can use with the FSEGDEF view.

Table 16. FSEGDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a file key segment definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of file key segment definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a file key segment definition in the data repository. The format of the resulting panels is similar to that shown in Figure 60 on page 197. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a file key segment definition and add it to the data repository, as described on page 196.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a file key segment definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a file key segment definition in the data repository. The format of the resulting panels is similar to that shown in Figure 60 on page 197. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the FSEGDEF view.

Defining file key segments using BAS

To create a file segment definition:

1. Issue the create primary (CREate) or line (CRE) action command from the FSEGDEF view.
2. Fill in the fields on the first file segment definition panel (see Figure 60 on page 197):
3. To add the file segment definition to the data repository, press Enter. To continue creating a file segment definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second file segment definition panel. The second file key segment definition panel is similar to the first; it allows you to define key segments 11 through 24.

5. When you are finished defining key segments, press Enter to add the definition to the data repository.

Figure 60. Creating a file key segment definition - Page 1

Installing file key segment definitions

The INStall command is not valid for file key segment definitions.

FSEGDEF attribute descriptions

Provide the following information about the definition, as appropriate:

Name Specify a 1- to 8-character name for the file key segment definition.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

Description
(Optional.) Specify a 1- to 30-character description of the file key segments.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

User Data
(Optional.) Three 8-character fields provided for any site-specific data related to the file key segments. CICSPlex SM makes no use of this user data.
FSEGDEF

The remaining fields on the two file key segment definition panels identify the attributes of up to 24 key segments. Provide the following information for each key segment, as appropriate:

**Pos** Specify the starting character position of the key segment within the record. The first byte is character 0.

**Len** Specify the length of the key segment in bytes, in the range 0 through 999.

**Dup** Specify Y or N to indicate whether duplicate keys are permitted.

**Mod** Specify Y or N to indicate whether the key is modifiable.

**Bin** Specify Y or N to indicate whether the segment is a binary key segment.

**Nc** Specify Y or N to indicate whether null characters are allowed in the key.

**Sg** Specify Y or N to indicate whether the segment is part of the same key as the next segment.

**Alt** Specify Y or N to indicate whether keys should be sorted using an EBCDIC collating sequence (as an alternative to ASCII).

**Nul** Specify the number of the null key, in the range 0 through 255.

If the file key segment definition is complete, press Enter. If you want to specify additional key segments, issue the DOWN command.

The second file key segment definition panel is similar to the first; it allows you to define key segments 11 through 24. When you are finished defining key segments, press Enter to add the definition to the data repository.
Chapter 40. Journal resource definitions

Journal definitions describe the CICS system log and user journals.

Accessing BAS journal definitions

To display information about existing journal definitions:

**Issue the command:**

```
JRNLDEF [resdef]
```

where `resdef` is the specific or generic name of a journal definition. If you omit this parameter, the view, illustrated in Figure 61, includes information about all existing journal definitions within the current context.

Select:

JRNLDEF from the ADMRES menu.

### Figure 61. The JRNLDEF view

<table>
<thead>
<tr>
<th>CMD ID</th>
<th>Ver</th>
<th>Created</th>
<th>Changed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1/09/97 11:53</td>
<td>1/09/97 11:56</td>
<td>System Log</td>
</tr>
<tr>
<td>98</td>
<td>1</td>
<td>1/09/97 11:59</td>
<td>1/09/97 11:59</td>
<td>Secondary User Log</td>
</tr>
<tr>
<td>99</td>
<td>1</td>
<td>1/09/97 12:04</td>
<td>1/09/97 12:04</td>
<td>Primary User Log</td>
</tr>
</tbody>
</table>

Working with the JRNLDEF view

The topics covered by this section are:

- [Availability](#) of the JRNLDEF view
- [Action commands](#) for the JRNLDEF view
- [Hyperlink fields](#) on page 200 for the JRNLDEF view

### Availability

Journals can be defined for all managed CICS systems except:

- CICS TS for OS/390
- CICS for OS/2 systems.

### Action commands

Table 17 summarizes the action commands you can use with the JRNLDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD <code>resdef</code> version</td>
<td>ADD</td>
<td>Add a journal definition to a resource group, as described on page 45</td>
</tr>
</tbody>
</table>
### Table 17. JRNLDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of journal definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a journal definition in the data repository. The format of the resulting panel is similar to that shown in Figure 62 on page 201. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a journal definition and add it to the data repository, as described on page 200.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a journal in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a journal definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a journal definition in the data repository. The format of the resulting panel is similar to that shown in Figure 62. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the JRNLDEF view.

### Defining journal definitions using BAS

To create a journal definition:

1. Issue the create primary (CREate) or line (CRE) action command from the JRNLDEF view.
2. Fill in the fields on the journal definition panel (see Figure 62 on page 201):
3. To add the journal definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

### Installing BAS journal definitions

To install a journal in an active system, issue the INS command.

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

- The CICSPlex SM JOURNAL command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE JOURNALNAME and INQUIRE JOURNALNUM commands; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE JOURNALNAME command; see [CICS System Programming Reference](#).

### Journal resource definition attributes

Provide the following information, as appropriate:

**Name**  Specify a journal number in the range 1 through 99. A value of 1 identifies the journal as the CICS system log.

**Version**  (Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

**Description**  (Optional.) Specify a 1- to 30-character description of the journal.

**RESGROUP**  (Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.
User Data
(Optional.) Three 8-character fields provided for any site-specific data related to the journal. CICSPlex SM makes no use of this user data.

JournalType
Identify the type of journal being defined:

DISK1 A journal on disk that has one data set to be reused when full.
DISK2 A journal on disk that has two data sets to be used alternately.
SMF Journal records will be sent to system management facility (SMF) data sets.
TAPE1 A journal on one tape drive.
TAPE2 A journal on two tape drives.

BufferSize
Specify the size of each buffer to be used for journal I/O operations, in the range 512 through 32760.

Label
Indicate whether tapes with standard user labels are to be used for the journal:

NO Unlabeled tapes are used.
STANDARD Tapes with standard user labels are used. CICS keeps a record of the volumes available and used.

Layout
For standard labeled tapes, indicate what structure the journal is to have:

LINEAR An unlimited number of tape volumes that will be used in sequence.
CYCLIC A limited number of tape volumes that will be used in rotation, the oldest volume being overwritten when all volumes are full.

Open
Specify when the journal is to be opened:

INITIAL By system initialization.
DEFERRED After system initialization.

Note: You cannot specify DEFERRED for the system log or when you specify AUTOARCH in the Archstatus field.

Syswait
Indicate whether I/O is to be initiated immediately on synchronizing requests (PUT, (WRITE,WAIT), or WAIT) from CICS management modules to the journal:

STARTIO Initiate I/O immediately on synchronizing requests.
ASIS Honor the option coded in the STARTIO keyword in the macro request for synchronizing requests.
VolCnt

For standard labeled tapes, specify the number of tape volumes, in the range 2 through 255.

For tapes with a LAYOUT value of CYCLIC, this is the number of tape volumes in the cycle. For tapes with a LAYOUT value of LINEAR, this is the minimum number of tape volumes that are to be kept available for this journal.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Archstatus

Indicate whether automatic journal archiving is to be performed for the journal:

**NOAUTOARCH**

Do not perform automatic archiving.

**AUTOARCH**

Perform automatic archiving.

**Note:** If you specify AUTOARCH, you cannot use the Emergency Restart field or specify YES in the Pause field.

**REVERTED**

Revert to operator archiving if any errors occur during automatic archiving.

Crucial

Specify YES or NO to indicate whether CICS is to take any action when an I/O error occurs. If you specify YES, the type of action taken depends on the type of I/O error and when it occurred.

Retry

Specify YES or NO to indicate whether I/O errors are to be automatically retried on a new output volume.

Pause

Specify YES or NO to indicate whether operator authorization is required for a journal data set to be reused.

EmergencyRstrt

Indicate which data set to use after DFHJ01X has been used during an emergency restart:

**LRU**

Logging continues on the less recently used data set.

**EXTA**

DFHJ01A is used.

OpenStatus

Specify OPEN or CLOSED to indicate whether the journal should be open for output.
Chapter 41. Journal model resource definitions

For systems running the CICS TS for OS/390 Release 1 and later, journal model definitions describe the association between a CICS journal name and the MVS system log streams or the SMF log.

Accessing the BAS journal model definitions

To display information about existing journal model definitions:

**Issue the command:**

```
JRNMDEF [resdef]
```

where `resdef` is the specific or generic name of a journal model definition. If you omit this parameter, the view, illustrated in Figure 63, includes information about all existing journal model definitions within the current context.

**Select:**

JRNMDEF from the ADMRES menu.

![Figure 63. The JRNMDEF view](image)

Working with the JRNMDEF view

The topics covered in this section are:

- "Availability" of the JRNMDEF view
- "Action commands" for the JRNMDEF view
- "Hyperlink fields" on page 206 for the JRNMDEF view

Availability

Journal models can be defined for systems running the CICS TS for OS/390 Release 1 and later.

Action commands

Table 18 on page 206 summarizes the action commands you can use with the JRNMDEF view.
Table 18. JRNMDDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a journal model definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of journal model definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a journal model definition in the data repository. The format of the resulting panel is similar to that shown in Figure 64 on page 207. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a journal model definition and add it to the data repository, as described on page 206.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For CICS Transaction Server for OS/390 Release 1 and later, install a journal model in an active system, as described on page 73.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a journal model definition from the data repository, as described on page 81.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a journal model definition in the data repository. The format of the resulting panel is similar to that shown in Figure 64. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the JRNMDDEF view.

Defining journal models using BAS

To create a journal model definition:
1. Issue the create primary (CREate) or line (CRE) action command from the JRNMDDEF view.
2. Fill in the fields on the journal model definition panel (see Figure 64 on page 207):
3. To add the journal model definition to the data repository, press Enter.

Installing BAS journal model definitions

To install a journal model in an active system, issue the INS command.

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

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

Journal model definition attributes

The journal model definition attribute descriptions are:

Description
You can provide a description of the resource you are defining in this field. The DESCRIPTION text can be up to 30 characters in length. There are no restrictions on the characters that you may use.

Name
Specify a 1- to 8-character name for the journal model definition.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

StreamName
(Optional.) specifies either an explicit MVS system logger log stream name, or a template used to construct the log stream name. STREAMNAME is applicable only to journal models defined with a LOGSTREAMTYPE of MVS.

A stream name can be:

Unqualified name
1 to 8 alphanumeric or national characters.

Qualified name
Multiple names joined by periods, up to a maximum of 26 characters.
A stream name can be made up of one or more symbolic names:

&USERID.
The symbolic name for the CICS region userid, which can be up to eight characters. If the region does not have a userid, the string ‘CICS’ will be used.

&APPLID.
The symbolic name for the CICS region APPLID as specified on the system initialization parameter, and which can be up to eight characters.

&JNAME.
The symbolic name for a journal name that references, either by a specific or generic match, this journal model definition. &JNAME. can be up to eight characters in length.

LogStreamType
specifies where the journal records are to be written. It can be up to five characters, and can have the following values:

DUMMY
No log records are to be written.

MVS
Records are to be written to an MVS system logger log stream. The name of the log stream is specified in the STREAMNAME attribute.

SMF
Journal records are to be written in SMF format to the MVS SMF log instead of to an MVS system logger log stream.

Note: SMF is not allowed for the CICS system log or for forward recovery logs.

User Data
(Optional.) Three 8-character fields provided for any site-specific data related to the journal model. CICSPlex SM makes no use of this data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 42. LSR pool resource definitions

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

Accessing BAS LSR pool definitions

To display information about existing LSR pool definitions:

Issue the command:

```
LSRDEF [resdef]
```

where `resdef` is the specific or generic name of a LSR pool definition. If you omit this parameter, the view, illustrated in Figure 65, includes information about all existing LSR pool definitions within the current context.

Select:

LSRDEF from the ADMRES menu.

![Figure 65. The LSRDEF view](image)

Working with the LSRDEF view

The topics covered in this section are:

- "Availability" of the LSRDEF view
- "Action commands" for the LSRDEF view
- "Hyperlink fields" on page 210 for the LSRDEF view

Availability

LSR pools can be defined for all managed CICS systems except:

- CICS/MVS 2.1.2
- CICS for OS/2 systems.

Action commands

Table 19 on page 210 summarizes the action commands you can use with the LSRDEF view.
Table 19. LSRDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add an LSR pool definition to a resource group, as described on page 43.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of LSR pool definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse an LSR pool definition in the data repository. The format of the resulting panels is similar to that shown in Figure 66 on page 211 and Figure 67 on page 211. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create an LSR pool definition and add it to the data repository, as described on page 210.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install an LSR pool in an active system, as described on page 73.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove an LSR pool definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update an LSR pool definition in the data repository. The format of the resulting panels is similar to that shown in Figure 66 and Figure 67 on page 211. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the LSRDEF view.

Defining LSR pools using BAS

To create an LSR pool definition:

1. Issue the create primary (CREate) or line (CRE) action command from the LSRDEF view.
2. Fill in the fields on the first LSR pool definition panel (see Figure 66 on page 211):
3. To add the LSR pool definition to the data repository, press Enter. To continue creating an LSR pool definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second LSR pool definition panel (see Figure 67):

Figure 66. Creating an LSR pool definition - Page 1

3. To add the LSR pool definition to the data repository, press Enter. To continue creating an LSR pool definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second LSR pool definition panel (see Figure 67):

Figure 67. Creating an LSR pool definition - Page 2

5. To add the LSR pool definition to the data repository, press Enter.

Installing BAS LSP pool definitions

To install an LSR pool in an active system, issue the INS command.
After installation of a LSRDEF resource definition, you can enquire about the resultant object using:

- The CICSPlex SM LSRPOOL command; see [CICSPlex System Manager Operations Views Reference](#).
- There is no CICS CEMT INQUIRE command for LSR pools.
- There is no EXEC CICS INQUIRE command for LSR pools.

## LSR pool definition attributes

The LSR pool definition attribute descriptions are:

### Data Buffer Sizes

specify the number of data buffers of each size that you require, in the range 3 through 32767. If you leave this fields blank, there are no default values.

### Description

You can provide a description of the resource you are defining in this field. The DESCRIPTION text can be up to 30 characters in length.

### Hiperspace™ Data Buffer Sizes

Specify the number of Hiperspace data buffers of each size that you require, in the range 0 through 16777215. If you leave these fields blank, there are no default values.

**Note:** If you specify a value for a Hiperspace data buffer of a given size, you must also specify a value for the data buffer of the same size.

### Hiperspace Index Buffer Sizes

Specify the number of Hiperspace index buffers of each size that you require, in the range 0 through 16777215. If you leave these fields blank, there are no default values.

**Note:** If you specify a value for a Hiperspace index buffer of a given size, you must also specify a value for the index buffer of the same size.

### Index Buffer Sizes

- **INDEX512**(value)
  
  specifies the number, in the range 3 through 32767, of 512-byte index buffers you require.

- **INDEX1K**(value)
  
  specifies the number, in the range 3 through 32767, of 1KB index buffers you require.

- **INDEX2K**(value)
  
  specifies the number, in the range 3 through 32767, of 2KB index buffers you require.

- **INDEX4K**(value)
  
  specifies the number, in the range 3 through 32767, of 4KB index buffers you require.

- **INDEX8K**(value)
  
  specifies the number, in the range 3 through 32767, of 8KB index buffers you require.

- **INDEX12K**(value)
  
  specifies the number, in the range 3 through 32767, of 12KB index buffers you require.
INDEX16K(value)  
specifies the number, in the range 3 through 32767, of 16KB index buffers you require.

INDEX20K(value)  
specifies the number, in the range 3 through 32767, of 20KB index buffers you require.

INDEX24K(value)  
specifies the number, in the range 3 through 32767, of 24KB index buffers you require.

INDEX28K(value)  
specifies the number, in the range 3 through 32767, of 28KB index buffers you require.

INDEX32K(value)  
specifies the number, in the range 3 through 32767, of 32KB index buffers you require.

LSRpoolid  
specifies the identifier of the local shared resource pool being defined. The value must be in the range 1 through 8. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Maxkeylength  
specifies the maximum key length of any of the files that are to share resources. The value must be in the range 0 through 255. This value overrides part of the CICS resource calculation. If you do not specify it, CICS determines the maximum key length.

Name  
Specify a 1- to 8-character name for the LSR pool definition.

RESGROUP  
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

Sharelimit  
specifies, as an integer, the percentage of the maximum amount of VSAM resources to be allocated. The number can be any value from 1 through 100.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Strings  
specifies the limit, in the range 1 through 255, of all the strings of the files in the pool. If you leave this field blank, there is no default value.

User Data  
(Optional.) Three 8-character fields provided for any site-specific data related to the LSR pool. CICSPlex SM makes no use of this user data.

Version  
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 43. Map set resource definitions

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

Accessing BAS map set definitions

To display information about existing map set definitions:

**Issue the command:**

```
MAPDEF [resdef]
```

where `resdef` is the specific or generic name of a map set definition. If you omit this parameter, the view, illustrated in Figure 68, includes information about all existing map set definitions within the current context.

**Select:**

MAPDEF from the ADMRES menu.

![Figure 68. The MAPDEF view](image)

Working with the MAPDEF view

The topics covered by this section are:

- [Availability](#) of the MAPDEF view
- [Action commands](#) for the MAPDEF view
- [Hyperlink fields on page 216](#) for the MAPDEF view

Availability

Map sets can be defined for all managed CICS systems except CICS for OS/2 systems.

Action commands

Table 20 summarizes the action commands you can use with the MAPDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a map set definition to a resource group, as described on page 43.</td>
</tr>
</tbody>
</table>
MAPDEF

Table 20. MAPDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of map set definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a map set definition in the data repository. The format of the resulting panel is similar to that shown in Figure 69. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a map set definition and add it to the data repository, as described on page 216.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a map set in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point. The format of the resulting panel is similar to that shown in Figure 69. Most of the fields are modifiable.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a map set definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a map set definition in the data repository.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the MAPDEF view.

Defining map sets using BAS

To create a map set definition:

1. Issue the create primary (CREate) or line (CRE) action command from the MAPDEF view.
2. Fill in the fields on the map set definition panel (see Figure 69):

   COMMAND ===>
   Name ===> EYUMAP01  Version ===> 1
   Description ===> Payroll Map Set
   User Data ===> 
   Resident ===> NO  Resident status (NO, YES)
   Usage ===> NORMAL  Storage release (NORMAL, TRANSIENT)
   UseLPAcopy ===> NO  Map set used from LPA (NO, YES)
   Status ===> ENABLED  Map set status (ENABLED, DISABLED)
   Rs1 ===> 0  Resource security value (0-24,PUBLIC,blank)

   Press ENTER to create MAPDEF.
   Type END or CANCEL to cancel without creating.

   Figure 69. Creating a map set definition

3. To add the map set definition to the data repository, press Enter.
Installing BAS map set definitions

To install a map set in an active system, issue the INS command.

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

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

Map set definition attributes

The map set definition attribute descriptions are:

**Description**
You can provide a description of the resource you are defining in this field. The DESCRIPTION text can be up to 30 characters in length. There are no restrictions on the characters that you may use.

**Name**
Specify a 1- to 8-character name for the map set definition.

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Resident**
specifies the residence status of the map set.

- **NO** The map set is not to be permanently resident.
- **YES** The map set is to be loaded on first reference and is then to be permanently resident in virtual storage, but is to be pageable by the operating system.

**Rsl**
For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the program:

- **0** Transactions with RSL checking specified are not allowed to access the program.
- **value** A resource security value, in the range 1 through 24.
- **PUBLIC** Any transaction is allowed to access the program.

For systems running a version of CICS other than CICS/MVS 2.1.2, leave this field blank.

**Status**
specifies the map set status.

- **DISABLED** The map set may not be used.
- **ENABLED** The map set may be used.
Usage
specifies when the storage for this map set will be released.

NORMAL
When the use count of the map set reaches zero, it will become eligible for removal from storage as part of the normal dynamic storage compression process.

TRANSIENT
When the use count for this map set becomes zero, the storage for this map set is released. This value should be specified for map sets that are referenced infrequently.

UseLAcopy
specifies whether the map set is to be used from the link pack area (LPA).

NO The map set is not to be used from the LPA. It is loaded into the CICS partition.

YES The map set can be used from the LPA if LPA=YES is specified as a system initialization parameter.

User Data
(Optional.) Three 8-character fields provided for any site-specific data related to the map set. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 44. Partner resource definitions

Partner definitions enable CICS application programs to communicate via APPC protocols with a partner application program running on a remote logical unit.

Accessing BAS partner definitions

To display information about existing partner definitions:

**Issue the command:**

```
PARTDEF [resdef]
```

where *resdef* is the specific or generic name of a partner definition. If you omit this parameter, the view, illustrated in Figure 70, includes information about all existing partner definitions within the current context.

**Select:**

PARTDEF from the ADMRES menu.

![Table 21. PARTDEF view action commands](https://example.com/table21)

**Table 21. PARTDEF view action commands**

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
</table>
| ADD resdef version | ADD | Add a partner definition to a resource group, as described on page 43.
| ALTER | n/a | Apply global changes to a set of partner definitions, as described on page 27.

Figure 70. The PARTDEF view

Working with the PARTDEF view

The topics covered by this section are:

- "Availability" of the PARTDEF view
- "Action commands" for the PARTDEF view
- "Hyperlink fields" on page 220 for the PARTDEF view

Availability

Partners can be defined for CICS/ESA 3.3 and later systems.

Action commands

Table 21 summarizes the action commands you can use with the PARTDEF view.
<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a partner definition in the data repository. The format of the resulting panel is similar to that shown in Figure 71 on page 221. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a partner definition and add it to the data repository, as described on page 220.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a partner in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a partner definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a partner definition in the data repository. The format of the resulting panel is similar to that shown in Figure 71. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the PARTDEF view.

Defining partner definitions using BAS

To create a partner definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PARTDEF view.

2. Fill in the fields on the partner definition panel (see Figure 71 on page 221):
3. To add the partner definition to the data repository, press Enter.

### Installing BAS partner definitions

To install a partner in an active system, issue the INS command.

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

- The CICSPlex SM PARTNER command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE PARTNER command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE PARTNER command; see [CICS System Programming Reference](#).

### Partner definition attributes

The partner definition attribute descriptions are:

**Description**
You can provide a description of the resource you are defining in this field. The DESCRIPTION text can be up to 30 characters in length.

**Name**
Specify a 1- to 8-character, alphanumeric name for the partner definition.

**NetName**
is the NETNAME attribute specified in the connection definition. The name can be up to eight characters in length.

**Network**
You can use this optional attribute to specify the name of the network on which the partner LU is located. The name can be up to eight characters in length.
PARTDEF

Profile
specifies which communication profile is to be used for the session and conversation. The default PROFILE is DFHCICSA.

REGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

TPname
specifies the name of the remote transaction program that will be running on the partner LU. The definition of a remote TP name is mandatory; you must specify either TPNAME or its alternative, XTPNAME.

This name can be up to 64 characters in length.

User Data
(Optional.) Three 8-character fields provided for any site-specific data related to the partner. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

XTPname
This attribute may be used as an alternative to TPNAME; you must specify one of the two, because the definition of a remote TP name is mandatory.

Enter a hexadecimal string up to 128 characters in length, representing the name of the remote transaction program that runs on the partner LU. All hexadecimal combinations are acceptable except X'40'.
Chapter 45. Process type definitions

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

Accessing BAS process type definitions

To display information about existing process type definitions:

**Issue the command:**

```
PROCDEF [resdef]
```

where *resdef* is the specific or generic name of a process type definition. If you omit this parameter, the view, illustrated in Figure 72, includes information about all existing process type definitions within the current context.

**Select:**

PROCDEF from the ADMRES menu.

![Table 22 on page 224 summarizes the action commands you can use with the PROCDEF view.](image)

Figure 72. The PROCDEF view

Working with the PROCDEF view

The topics covered by this section are:

- "Availability" of the PROCDEF view
- "Action commands" for the PROCDEF view
- "Hyperlink fields" on page 224 for the PROCDEF view

Availability

Process types can be defined for CICS Transaction Server for z/OS, Version 2 Release 1 and later systems.

Action commands

Table 22 on page 224 summarizes the action commands you can use with the PROCDEF view.
Table 22. PROCDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a process type definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of process type definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a process type definition in the data repository. The format of the resulting panels is similar to that shown in Figure 73 on page 225. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a process type definition and add it to the data repository, as described on page 183.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS TS for OS/390 Release 3 and later, install a process type in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a process type definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a process type definition in the data repository. The format of the resulting panels is similar to that shown in Figure 73. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the PROCDEF view.

Defining process types using BAS

To create a process type definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PROCDEF view.
2. Fill in the fields on the process type definition panel (see Figure 73 on page 225):
To add the process type definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

## Installing BAS process type definitions

To install a process type in an active system, issue the INS command.

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

- The CICSPlex SM PROCTYP command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE PROCESSTYPE command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE PROCESSTYPE command; see [CICS System Programming Reference](#).

## Process type definition attributes

The process type definition attribute descriptions are:

**Auditlevel**

specifies the initial level of audit logging for processes of this type. If you specify any value other than OFF, you must also specify the AUDITLOG option.

**ACTIVITY**

Activity-level auditing. Audit records will be written from:

1. The process audit points
2. The activity primary audit points.

That is, an audit record is written:

- Whenever a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is acquired
  - Completes
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed

---

**Figure 73. Creating a process type definition**

3. To add the process type definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

---

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>Name</th>
<th>Version</th>
<th>Description</th>
<th>RESGROUP</th>
<th>User Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>--------</td>
<td>------</td>
<td>---------</td>
<td>-------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>COMMAND</td>
<td>EYUPTP08</td>
<td>1</td>
<td>Process type for SALES processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESGROUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>ENABLED</td>
<td>Enabled</td>
<td>Disabled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>File</td>
<td></td>
<td></td>
<td>File name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditlog</td>
<td></td>
<td>Name of Audit Log</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditlevel</td>
<td>OFF</td>
<td>Off</td>
<td>Process</td>
<td>Activity</td>
<td>Full</td>
</tr>
</tbody>
</table>

Press ENTER to update PROCDEF.
Type END or CANCEL to cancel without creating.
and:

- Each time data is placed in a process container belonging to a process of this type; that is, each time a PUT CONTAINER PROCESS or PUT CONTAINER ACQPROCESS command is issued against a process of this type.
- Each time a process container belonging to a process of this type is deleted.
- Each time a root activity (DFHROOT) of this type of process is activated.

- Every time a non-root activity belonging to a process of this type:
  - Is requested to link
  - Is activated
  - Completes

**FULL** Full auditing. Audit records will be written from:

1. The process audit points
2. The activity primary and secondary audit points.

That is, an audit record is written:

- Whenever a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is acquired
  - Completes
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed

and:

- Each time data is placed in a process container belonging to a process of this type
- Each time a process container belonging to a process of this type is deleted.
- Each time a root activity (DFHROOT) of this type of process is activated.

- Every time a non-root activity belonging to a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is acquired
  - Completes
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed
  - Is deleted.

**OFF** No audit trail records will be written.

**PROCESS** Process-level auditing. Audit records will be written from the process audit points only. That is, an audit record is written whenever a process of this type:
**PROFDEF**

- Is defined
- Is requested to run
- Is requested to link
- Is acquired
- Completes
- Is reset
- Is canceled
- Is suspended
- Is resumed

and:
- Each time data is placed in a process container belonging to a process of this type
- Each time a process container belonging to a process of this type is deleted.
- Each time a root activity (DFHROOT) of this type of process is activated.

For details of the records that are written from the process, activity primary, and activity secondary audit points, see the [CICS Business Transaction Services](https://www.ibm.com) manual.

**Auditlog**

specifies the name of a CICS journal to which audit trail records will be written, for processes of this type and their constituent activities. The name can be up to eight characters long. If you do not specify an audit log, no audit records will be kept for processes of this type.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**File**

specifies the name of the CICS file definition that will be used to write the process and activity records of this process-type to its associated repository data set. The name can be up to eight characters long.

**Name**

Specify a 1- to 8-character name for the process type definition.

**RESGROUP**

(Optional.) Specify the name of an existing resource to which the definition is to be automatically added.

**Status**

specifies the initial status of the process-type.

**DISABLED**

Processes of this type cannot be created. An EXEC CICS DEFINE PROCESS request that tries to create a process of this type results in the INVREQ condition being returned to the application program.

**ENABLED**

Processes of this type can be created.
PROFDEF

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the process type. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 46. Profile resource definitions

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

Accessing BAS profile resource definitions

To display information about existing profile definitions:

Issue the command:

```
PROFDEF [resdef]
```

where `resdef` is the specific or generic name of a profile definition. If you omit this parameter, the view, illustrated in Figure 74, includes information about all existing profile definitions within the current context.

Select:

PROFDEF from the ADMRES menu.

![Image](image.jpg)

Figure 74. The PROFDEF view

Working with the PROFDEF view

The topics covered by this section are:

- [Availability](#) of the PROFDEF view
- [Action commands](#) for the PROFDEF view
- [Hyperlink fields](#) on page 230 for the PROFDEF view

Availability

Profiles can be defined for all managed CICS systems except CICS for OS/2 systems.

Action commands

Table 23 summarizes the action commands you can use with the PROFDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD <code>resdef</code> version</td>
<td>ADD</td>
<td>Add a profile definition to a resource group, as described on page 43</td>
</tr>
</tbody>
</table>

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Table 23. PROFDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of profile definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a profile definition in the data repository. The format of the resulting panels is similar to that shown in Figure 75 on page 231 and Figure 76 on page 231. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a profile definition and add it to the data repository, as described on page 230.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a profile in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a profile definition from the data repository, as described on page 31. The format of the resulting panels is similar to that shown in Figure 75 and Figure 76 on page 231. Most of the fields are modifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a profile definition in the data repository.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the PROFDEF view.

Defining profiles using BAS

To create a profile definition:
1. Issue the create primary (CREate) or line (CRE) action command from the PROFDEF view.
2. Fill in the fields on the first profile definition panel (see Figure 75 on page 231):
3. To add the profile definition to the data repository, press Enter. To continue creating a profile definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second profile definition panel (see Figure 76):

Figure 75. Creating a profile definition - Page 1

5. To add the profile definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

Figure 76. Creating a profile definition - Page 2

Installing BAS profile definitions

To install a profile in an active system, issue the INS command.

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

- The CICSPlex SM PROFILE command; see CICSPlex System Manager Operations Views Reference.
- The CICS CEMT INQUIRE PROFILE command; see CICS Supplied Transactions.
Profile definition attributes

The profile definition attribute descriptions are:

**Chaincontrol**
specifies whether the application program can control the outbound chaining of request units. If you specify CHAINCONTROL(YES), ONEWTE(YES) means one chain and not one terminal control output request.

**Description**
You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**Dvssuprt**
specifies the devices (terminals or logical units) that are to be supported.

- **ALL** The profile can be used with any terminal or logical unit.
- **NONVTAM** The profile can be used only with non-VTAM terminals.
- **VTAM** The profile can be used only with logical units.

**Facilitylike**
For systems running CICS TS for OS/390 Release 2 and later, identifies the 1–to 4–character name of a terminal definition or an installed terminal definition (TERMDEF) to be used as a template by a bridge exit. When this transaction is run in a 3270 bridge environment, the principal facility will be built to have the same attributes as the terminal defined by the Facilitylike field.

There is no default value for this parameter.

If you are running in a CICS system started with the VTAM=NO system initialization (SIT) parameter, the resource definition specified by Facilitylike must be defined as a remote terminal.

**Inbfmh (SNA LUs only)**
specifies, for profiles used with logical units, whether a function management header (FMH) received from a logical unit is to be passed to the application program.

- **ALL** All FMHs (except APPC FMHs and LU6.1 ATTACH and SYNCPOINT FMHs that are processed by CICS) are passed to the application program. This value is required for function shipping transactions such as CSMI, transactions which use distributed transaction processing, and for distributed program link requests.
- **DIP** The batch data interchange program (DFHDIP) is to process inbound FMHs.
- **EODS** An FMH is passed to the application program only if it indicates end of data set (EODS).
- **NO** The FMHs are discarded.

**Journal**
specifies that you want automatic journaling of messages to take place, by giving the identifier of the journal.

- **NO** No automatic journaling of messages is to take place.
**number**
The journal identification to be used for automatic journaling. This can be any number in the range 01 through 99. This number is appended to the letters DFHJ to give a journal identification of the form DFHJnn and this maps to an MVS system logger general log stream.

**Note:** Unlike in releases prior to CICS Transaction Server for OS/390 Version 1 Release 1, DFHJ01 is not the system log.

**Logrec**
specifies whether the design of the application requires that each EXEC CICS RECEIVE request is to be satisfied by a logical record.

**Modename**
specifies the name that identifies a group of sessions for use on an APPC connection. The name can be up to eight characters in length.

**Msginteg (SNA LUs only)**
specifies whether a definite response is to be requested with an output request to a logical unit.

**Msgjrnl**
specifies which messages are to be automatically journaled.

- **NO** No message journaling is required.
- **INPUT** Journaling is required for input messages.
- **OUTPUT** Journaling is to be performed for output messages.
- **INOUT** Journaling is to be performed for input and output messages.

**Name**
Specify a 1- to 8-character name for the profile definition.

**Nepclass (VTAM only)**
specifies the node error program transaction class.

- **0** This results in a link to the default node error program module for VTAM devices, or is the default value for non-VTAM devices.
- **value** The transaction class for the (nondefault) node error program module. The value can be in the range 1 through 255. For programming information on the node error program, see the [CICS Customization Guide](#).

**Onewte**
specifies whether the transaction is permitted only one write operation or EXEC CICS SEND during its execution. YES has the effect of forcing the LAST option on the first write of the transaction. Any additional write requests are treated as errors, and the task is made ready for abnormal termination.

**Printercomp**
specifies the level of compatibility required for the generation of data streams to support the printer compatibility option for the BMS SEND TEXT command.

- **NO** Each line of output starts with a blank character, so that the format is equivalent to that on a 3270 display where an attribute byte precedes each line.
PROFDEF

YES  No blank character is inserted, so that forms-feed characters included as the first character of your data are honored and the full width of the printer is available for your data.

If you use the BMS forms feed option, specify YES.

Protect
For SNA logical units, specify YES or NO to indicate whether recovery for output messages is required. If the Protect value does not apply to this definition, specify N/A.

Raq (SNA terminals only)
specifies whether the ‘read ahead queuing’ option is required.

NO  The transaction obeys SNA protocols and only SEND and RECEIVE when in the correct mode. If it does not follow the protocol, it may be abended with code ATCV.

YES  The transaction may not obey SNA protocols, and CICS queues incoming data on temporary storage until the data is specifically requested by the transaction. RAQ(YES) is provided only for compatibility with transactions that support both bisynchronous devices and logical units, and its use is not recommended.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

Rtimout
specifies the time-out value:

- For the read time-out feature. The task that is timed out receives an AKCT or AZCT abend. (Note that if a value is specified and you wish to let it default to NO, you must completely delete the value previously specified.)
- To terminate an IIOP request processor task that has been waiting for a method request for longer than the RTIMOUT value.

RTIMOUT has no effect for MRO or basic (unmapped) APPC connections.

NO  The read time-out feature is not required.

value  This is an interval (MMSS for minutes and seconds) after which the task is terminated if no input has been received from the terminal. The maximum value that can be specified is 70 minutes. The value specified in this option is rounded up to units of 16.78 seconds. Thus, the minimum value (after rounding-up) is 16.78 seconds.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Scrnsize
specifies whether the DEFAULT or ALTERNATE buffer size for a 3270 display or printer is to be used.

The SCRNSIZE value is ignored if the TYPETERM definition has ALTSCREEN(0,0) and DEFSCREEN(0,0). That is, the screen size is assumed from the related TERMMODEL attribute in the TYPETERM definition; the page size is taken from PAGESIZE, and the ALTPAGE value is ignored. The 3270 erase write (EW) command is inserted for output requests with the ERASE option.

ALTERNATE
If the TYPETERM definition has nonzero ALTSCREEN, the alternate...
screen size mode is applied, using the erase write alternate (EWA) command. That is, whenever a terminal output request with the ERASE option is issued, the 3270 EWA command is inserted in the data stream. The ALTSCREEN value is assumed as the screen size, and BMS uses the value in ALTPAGE as the page size.

SCRNSIZE(ALTERNATE) may be used for all CICS service transactions (for example, CSMT).

**DEFAULT**

If the TYPETERM definition has nonzero ALTSCREEN or nonzero DEFSCREEN, the default screen size mode is applied, using the erase write (EW) command. That is, whenever the terminal issues a terminal output request with the ERASE option, the 3270 EW command is inserted in the data stream. The screen size specified in the DEFSCREEN attribute is assumed, and BMS uses the value specified in the PAGESIZE attribute as the page size.

**Uctran (VTAM only)**

specifies whether terminal input is to be translated to uppercase before passing to programs for the transaction using this profile.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the profile. CICSplex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSplex SM to assign the first available version id in the range 1 through 15.
Chapter 47. Program resource definitions

Program definitions describe the control information for a program that is stored in the program library and used to process a transaction.

Accessing BAS program definitions

To display information about existing program definitions:

**Issue the command:**

```
PROGDEF [resdef]
```

where `resdef` is the specific or generic name of a program definition. If you omit this parameter, the view, illustrated in [Figure 77], includes information about all existing program definitions within the current context.

**Select:**

PROGDEF from the ADMRES menu.

---

**26FEB2001 11:30:30 --------- INFORMATION DISPLAY ---------------------------
COMMAND ===>SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===> 
W1 ==PROGDEF=========EYUPLX01=EYUPLX01=26FEB2001==11:30:30=CPSM======4====
CMD Name Ver Created Changed Description
--- -------- --- -------------- -------------- --------------------------
EYUPAUTO 1 1/17/97 10:52 1/17/97 10:52
EYUPAUT2 1 1/17/97 11:03 1/17/97 11:03
EYUPRG01 1 1/09/97 13:57 1/09/97 13:57 SSET - Definition
EYUPRG02 1 1/09/97 14:12 1/09/97 14:12 SSET - Definition

**Figure 77. The PROGDEF view**

Working with the PROGDEF view

The topics covered by this section are:

- "Availability" of the PROGDEF view
- "Action commands" for the PROGDEF view
- "Hyperlink fields" on page 238 for the PROGDEF view

Availability

Programs can be defined for all managed CICS systems.

Action commands

Table 24 summarizes the action commands you can use with the PROGDEF view.

**Table 24. PROGDEF view action commands**

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a program definition to a resource group, as described on page 45</td>
</tr>
</tbody>
</table>
### Table 24. PROGDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of program definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a program definition in the data repository. The format of the resulting panel is similar to that shown in Figure 78 on page 239. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a program in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a program definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a program definition in the data repository. The format of the resulting panel is similar to that shown in Figure 78. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the PROGDEF view.

### Defining programs using BAS

To create a program definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PROGDEF view.
2. Fill in the fields on the program definition panel (see Figure 78 on page 239):
To add the program definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

Installing BAS program definitions

To install a program in an active system, issue the INS command.

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

- The CICSPlex SM PROGRAM command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE PROGRAM command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE PROGRAM command; see [CICS System Programming Reference](#).

Program definition attributes

The program definition attribute descriptions are:

**Cedf**

specifies the action of the execution diagnostic facility (EDF) when the program is running under EDF control.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>The EDF diagnostic screens are not displayed.</td>
</tr>
</tbody>
</table>
**PROGDEF**

**YES**

The EDF diagnostic screens are displayed. If the program is translated with the NOEDF option, only the program initiation and termination EDF screens are displayed. See .

**Concurrency**

specifies whether the program is written to threadsafe standards, or is only quasi-reentrant. You can specify the concurrency option for all CICS executable program objects:
- User application programs
- PLT programs
- User replaceable modules (URMs)
- Global user exit programs
- Task-related user exit programs

However, there are special considerations for URMs, task-related user exit programs, and global user exit programs. See the [CICS Customization Guide](#) for information about these categories of threadsafe programs.

**QUASIRENT**

The program is quasi-reentrant only, and relies on the serialization provided by CICS when accessing shared resources.

The program is restricted to the CICS permitted programming interfaces, and must comply with the CICS quasi-reentrancy rules. For details of these, see the multithreading topic in the [CICS Application Programming Guide](#).

This option is supported for all executable programs.

CICS ensures that the program always executes under the QR TCB, even when control is returned after it has invoked a JVM or an open API task-related user exit, or when it interacts with threadsafe programs.

**THREADSAFE**

The program is written to threadsafe standards, and when it accesses shared resources it takes into account the possibility that other programs may be executing concurrently and attempting to modify the same resources. The program, therefore, uses appropriate serialization techniques when accessing any shared resources. JVM programs must be defined as threadsafe.

For information about writing threadsafe application programs, see the [CICS Application Programming Guide](#).

This option is supported for all executable programs. Threadsafe programs must be Language Environment-conforming, or be assembler programs.

You can also specify the program CONCURRENCY option:
- Using a program autoinstall exit, if program autoinstall is active.
- Using the LE run-time options (for Language Environment-conforming programs only). See the [CICS Application Programming Guide](#) for information about using LE run-time options.

**Datalocation**

Commands using the SET option can return a data address to an application program; this operand specifies the location of the data.
ANY  The program can handle 31-bit addresses. The address of the data can be above or below the 16MB line.

BELOW  The program can handle only 24-bit addresses and must therefore only be given data located below the 16MB line. If necessary, data is copied below the 16MB line before passing its address to the application program.

Description  You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

Dynamic  specifies whether, if the program is the subject of a program-link request, the request can be dynamically routed.

NO  If the program is the subject of a program-link request, the dynamic routing program is not invoked.

For a distributed program link (DPL) request, the server region on which the program is to execute must be specified explicitly on the REMOTESYSTEM option of the PROGRAM definition or on the SYSID option of the EXEC CICS LINK command; otherwise it defaults to the local region.

YES  If the program is the subject of a program-link request, the CICS dynamic routing program is invoked. Providing that a remote server region is not named explicitly on the SYSID option of the EXEC CICS LINK command, the routing program can route the request to the region on which the program is to execute.

The DYNAMIC option takes precedence over the REMOTESYSTEM option—see the description of the REMOTESYSTEM option.

For guidance information about the dynamic routing of DPL requests, see the CICS Intercommunication Guide.

Execkey  specifies the key in which CICS gives control to the program, and determines whether the program can modify CICS-key storage.

CICS  This specifies that CICS is to give control to the program in CICS key when it is invoked.

USER  This specifies that CICS is to give control to the program in user key when it is invoked.

Executionset  specifies whether you want CICS to link to and run a program as if it were running in a remote CICS region.

DPLSUBSET  Specify DPLSUBSET if you want CICS to link to the program and run it with the API restrictions of a remote DPL program.

FULLAPI  Specify FULLAPI if you want CICS to link to the program and run it without the API restrictions of a DPL program. The program can use the full CICS API.
Hotpool(NO|YES)
specifies whether or not the Java program object is to be run in a preinitialized Language Environment enclave reused by multiple invocations of the program, under control of an H8 TCB. Programs defined with Hotpool (YES) must also be defined with CONCURRENCY (THREADSAFE).

Note: A Java program object is a Java program that has been processed by the VisualAge for Java Enterprise Toolkit for OS/390 bytecode binder.

NO The Java program object is not to be run in a preinitialized Language Environment enclave.

YES The Java program object is to be run in a preinitialized Language Environment enclave.

Jvm
specifies whether or not the program is a Java program that has to operate under the control of a Java Virtual Machine (JVM).

NO The program is not to operate under a JVM.

YES The program is to operate under a JVM. Specify a class name in the JVMCLASS option if you specify JVM(YES).

Note: In addition to YES and NO, you can also specify DEBUG, but in compatibility mode only. DEBUG is valid only in CICS Transaction Server 1.3.

Jvmclass
specifies the main class in a Java program to be run under the control of a JVM. This class name can be overridden using the user-replaceable module DFHJVMAT (see the CICS Customization Guide). You can use DFHJVMAT to specify a class name larger than 255 characters.

Note that this option applies only to Java applications running under the control of a JVM. If you specify JVM(NO), at program execution time CICS ignores any value specified in the JVMClass field.

JVM Profile
specifies the JVM profile name. The default value is DFHJVMPR. The name can be up to eight characters in length.

Language
specifies the program language. There is no default language, and if you omit the language, or define it incorrectly, the CICS program manager deduces the correct language and ignores your incorrect definition. This option is irrelevant for JVM programs; CICS deduces that the program is a Java program to run under the control of a JVM by the existence of either JVM(Yes) or JVM(Debug).

Note: The language of an assembler program can only be deduced if it has the assembler stub DFHEAI. If no language is defined and CICS cannot deduce the language, it will abend the transaction with an ALIG abend.

If you intend to share the CSD file with a level of CICS prior to CICS/ESA 4.1, do not leave this field blank, because it defaults to COBOL in the earlier release, which may not be correct.

ASSEMBLER
This is an assembler language program.
This is a C/370™ program not compiled by a Language Environment®-conforming compiler.

COBOL
This is an OS/VS COBOL or a VS COBOL II program.

LE370
LANGUAGE(LE370) must be specified if the program exploits multi-language support, or if the program has been compiled by a Language Environment-conforming compiler.

PLI
This is a PL/I program.

RPG
For CICS/MVS 2.1.2 system, an RPG program.

Name
Specify a 1- to 8-character name for the program definition.

Reload
specifies whether a program control link, load, or XCTL request is to bring in a fresh copy of a program. This option does not apply to JVM programs.

For more information about the RELOAD attribute, see CICS Performance Guide.

Remotename
(Optional.) specifies, if the program resides on a remote system, the name by which the program is known in the remote CICS region. If you specify RemoteSystem and omit Remotename, the Remotename attribute defaults to the same name as the local name (that is, the program name on this resource definition).

RemoteSystem
(Optional.) specifies, if the program resides on a remote system, the name of the connection that links the target (local) system to the related (remote) system where the program resides. If this parameter is not supplied, RemoteSystem is derived directly from the CICS system id of the related system, and the connection that links the target system to the related system must have the same name as the CICS system id of the related system.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

specifies the residence status of the program. This option does not apply to JVM programs.

For more information about the RESIDENT attribute, see CICS Performance Guide.

For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the program:

0
Transactions with RSL checking specified are not allowed to access the program.

value
A resource security value, in the range 1 through 24.

PUBLIC
Any transaction is allowed to access the program.

For systems running a version of CICS other than CICS/MVS 2.1.2, leave this field blank.
**Status**

specifies the program status.

**DISABLED**

The program may not be used.

**ENABLED**

The program may be used.

**Transid**

If the program is dynamic, this is the default TRANSID used for the distributed program link (DPL) request. If the program is not dynamic, this specifies the name of the transaction you want the remote CICS to attach, and under which it is to run the remote program. If you do not specify a transaction name on the TRANSID attribute, the remote region executes the DPL program under one of the following CICS-supplied default mirror transactions:

- **CPMI**
  This is the CICS mirror transaction for LU6.2 connections that specify data conversion.

- **CSMI**
  This is the CICS ISC mirror transaction for MRO and LU6.2 connections with sync level 2.

- **CVMI**
  This is the CICS/VM™ mirror transaction for LU6.2 connections with synclevel 1.

**Usage**

specifies when the storage for this program is released. This option does not apply to JVM programs.

**NORMAL**

When the use count for this program reaches zero, it becomes eligible for removal from storage as part of the normal dynamic program compression process.

This value must be specified if RELOAD(YES) is specified.

**TRANSIENT**

When the use count for this program becomes zero, the storage for this program is released. This value should be specified for programs that are referenced infrequently.

**UseLPAcopy**

specifies whether the program is to be used from the link pack area (LPA). This option does not apply to JVM programs.

**NO**

The program is not to be used from the LPA. It is loaded into the CICS address space.

**YES**

The program can be used from the LPA if LPA=YES is specified as a system initialization parameter.

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the program. CICSPlex® SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex® SM to assign the first available version id in the range 1 through 15.
Chapter 48. Partition set resource definitions

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

Accessing BAS partition set definitions

To display information about existing partition set definitions:

**Issue the command:**

```
PRTNDEF [resdef]
```

where `resdef` is the specific or generic name of a partition set definition. If you omit this parameter, the view, illustrated in Figure 79, includes information about all existing partition set definitions within the current context.

**Select:**

PRTNDEF from the ADMRES menu.

![Table of commands](image)

**Figure 79. The PRTNDEF view**

Working with the PRTNDEF view

The topics covered by this section are:

- "Installing BAS map set definitions" on page 217 for the PRTNDEF view
- "Installing BAS partner definitions" on page 221 for the PRTNDEF view
- "Working with the PROCDEF view" on page 223 for the PRTNDEF view

Availability

Partition sets can be defined for all managed CICS systems except CICS for OS/2 systems.

Action commands

Table 25 on page 246 summarizes the action commands you can use with the PRTNDEF view.
### PRTNDEF

#### Table 25. PRTNDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a partition set definition to a resource group, as described on page 43.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of partition set definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a partition set definition in the data repository. The format of the resulting panel is similar to that shown in Figure 80 on page 247. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a partition set definition and add it to the data repository, as described on page 246.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a partition set in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a partition set definition from the data repository, as described on page 51.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a partition set definition in the data repository. The format of the resulting panel is similar to that shown in Figure 80. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

#### Hyperlink fields

There are no hyperlink fields in the PRTNDEF view.

#### Defining partition sets using BAS

To create a partner set definition:

1. Issue the create primary (CREate) or line (CRE) action command from the PRTNDEF view.
2. Fill in the fields on the partner set definition panel (see Figure 80 on page 247):
### Partition set definition attributes

The partition set definition attribute descriptions are:

**Description**
You can provide a description of the resource you are defining in this field. The DESCRIPTION text can be up to 30 characters in length.

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Resident**
specifies the residence status of the partition set.

- **NO** The partition set is not to be permanently resident.
- **YES** The partition set is to be loaded on first reference and is then to be permanently resident in virtual storage, but is to be pageable by the operating system.

**RSL**
For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the partition set:

- **0** Transactions with RSL checking specified are not allowed to access the partition set.
**PRTNDEF**

**value**  A resource security value, in the range 1 through 24.

**PUBLIC**

Any transaction is allowed to access the partition set.

For systems running a version of CICS other than CICS/MVS 2.1.2, leave this field blank.

**Status**

specifies the partition set status.

**DISABLED**

The partition set may not be used.

**ENABLED**

The partition set may be used.

**Usage**

specifies when the storage for this partition set is released.

**NORMAL**

When the use count for this partition set reaches zero, it becomes eligible for removal from storage as part of the normal dynamic program compression process.

**TRANSIENT**

When the use count for this partition set becomes zero, the storage for this partition set is released. This value should be specified for partition sets that are referenced infrequently.

**UseLPACopy**

specifies whether the partition set is to be used from the link pack area (LPA).

**NO**

The partition set is not to be used from the LPA. It is loaded into the CICS partition.

**YES**

The partition set can be used from the LPA if LPA=YES is specified as a system initialization parameter. The use of the partition set from the LPA requires that it has been installed there and that the partition set is not named by the PRVMOD start-up option. For more details on this, see the [CICS Transaction Server for z/OS Installation Guide](https://www.ibm.com/support/knowledgecenter/SSEPG6_9.1.0/com.ibm.cics.ts.zos.desarrollo.doc/admin/cics_installation_guide.html).

**User Data**

(Optional.) Three 8-character fields provided for any site-specific data related to the partition set. CICSPlex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 49. 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 the BAS request model definitions

To display information about existing request model definitions:

**Issue the command:**

```
RQMDEF [resdef]
```

where `resdef` is the specific or generic name of a request model definition. If you omit this parameter, the view, illustrated in Figure 81, includes information about all existing request model definitions within the current context.

**Select:**

RQMDEF from the ADMRES menu.

![Figure 81. The RQMDEF view](image)

Working with the RQMDEF view

The topics covered by this section are:

- "Availability" of the RQMDEF view
- "Action commands" for the RQMDEF view
- "Hyperlink fields" on page 250 for the RQMDEF view

Availability

Request models can be defined for CICS Transaction Server Version 1 Release 3 and later.

Action commands

Table 26 on page 250 summarizes the action commands you can use with the RQMDEF view.
## Table 26. RQMDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a request model definition to a resource group, as described in &quot;Adding a resource definition to a resource group&quot; on page 49.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of request model definitions, as described in Figure 6 on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a request model definition in the data repository. The format of the resulting panel is similar to that shown in Figure 82 on page 251. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a request model definition and add it to the data repository, as described in &quot;Defining request models using BAS&quot;.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS Transaction Server for z/OS, Version 2 Release 1 or later, install a request model in an active system, as described in Chapter 21, Dynamic resource installation&quot; on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a request model definition from the data repository, as described in &quot;Remove a resource definition&quot; on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a request model definition in the data repository. The format of the resulting panel is similar to that shown in Figure 82 on page 251. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the RQMDEF view.

### Defining request models using BAS

To create a request model definition:

1. Issue the create primary (CREate) or line (CRE) action command from the RQMDEF view.
2. Fill in the fields on the request model panel (see Figure 82 on page 251):
To add the request model definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

### Installing BAS request model definitions

To install a request model in an active system, issue the INS command.

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

- The CICSPlex SM RQMODEL command; see [CICSPlex System Manager Operations Views Reference](#).

---

**Figure 82. Creating a request model definition**

3. To add the request model definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.
The CICS CEMT INQUIRE REQUESTMODEL command; see CICS Supplied Transactions.

The EXEC CICS INQUIRE REQUESTMODEL command; see CICS System Programming Reference.

Request model definition attributes

The request model definition attribute descriptions are:

**Beanname**

specifies a bean name, of up to 240 characters, matching the name of the enterprise bean in the XML deployment descriptor. The acceptable characters are A-Z, a-z, 0-9, and accented alphabetic characters. Characters outside this range may give unpredictable results. However, you can use an asterisk as the last (or only) character to specify a generic name.

If a generic BEANNAME is specified, INTFACETYPE must be BOTH and OPERATION must be an asterisk (*).

For CORBA REQUESTMODELs—that is, if TYPE is CORBA—this field should be blank.

**CORBAServer**

specifies the name of the destination CORBASERVER for this REQUESTMODEL. The name can be up to 4 characters in length. The acceptable characters are A-Z, a-z, 0-9,. You can also use an asterisk as the last (or only) character to specify a generic name.

If a generic CORBASERVER is specified, BEANNAME, the CORBA attributes (MODULE and INTERFACE), and the COMMON attributes (OPERATION) must all be an asterisk (*); INTFACETYPE must be BOTH.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, CORBASERVER must be blank.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**Intfacetype**

specifies the Java interface type for this REQUESTMODEL:

**BOTH**

matches either the home or remote interface for the bean. OPERATION must be an asterisk (*).

**HOME**

specifies that this is the home interface for the bean.

**REMOTE**

specifies that this is the remote interface for the bean.

**NOTAPPLIC**

specifies that this attribute is not applicable for this request model definition; that is, the interface type is CORBA.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, INTFACETYPE must be blank.
Name

Specify a 1- to 8-character name for the request model definition.

Interface

specifies a name, of up to 255 characters, matching the IDL interface name. The acceptable characters are A-Z a-z 0-9 _ : and accented alphabetic characters. Characters outside this range may give unpredictable results. However, you can use an asterisk as the last (or only) character to specify a generic name.

Case is significant and should match the original Java or IDL source. However, to comply with CORBA, installation of REQUESTMODELS that specify INTERFACE with values differing only in case from previously installed definitions, will be rejected.

If a generic INTERFACE is specified, the common attributes (OPERATION) must be an asterisk (*).

For EJB REQUESTMODELS—that is, if TYPE is EJB—this field should be blank.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, INTERFACE must be blank.

Module

specifies a name, of up to 255 characters, matching the IDL module name (which defines the name scope of the interface and operation). The acceptable characters are A-Z a-z 0-9 _ : and accented alphabetic characters. Characters outside this range may give unpredictable results. However, you can use an asterisk as the last (or only) character to specify a generic name.

Case is significant and should match the original Java or IDL source. However, to comply with CORBA, installation of REQUESTMODELS that specify MODULE with values differing only in case from previously installed definitions, will be rejected.

If a generic MODULE is specified, INTERFACE and OPERATION must be an asterisk (*).

To indicate the default package, leave this field blank and specify a non-blank (but possibly generic) INTERFACE.

For EJB REQUESTMODELS—that is, if TYPE is EJB—this field should be blank.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, MODULE must be blank.

OMGInterface

This attribute is obsolete, but is supported to provide BAS definition support for earlier releases of CICS. If this attribute is present in the request model definition, the following attributes must be blank:

BEANNAME
CORBASERVER
INTFACETYPE
INTERFACE
OPERATION
TYPE
If you define a request model with this attribute you can only install it on CICS TS for OS/390 Version 1 Release 3. See [CICS Resource Definition Guide](#) for more information.

**OMGModule**

This attribute is obsolete, but is supported to provide BAS definition support for earlier releases of CICS. If this attribute is present in the request model definition, the following attributes must be blank:

- BEANNAME
- CORBASERVER
- INTFACTYPE
- INTERFACE
- OPERATION
- TYPE

If you define a request model with this attribute you can only install it on CICS TS for OS/390 Version 1 Release 3. See [CICS Resource Definition Guide](#) for more information.

**OMGOperation**

This attribute is obsolete, but is supported to provide BAS definition support for earlier releases of CICS. If this attribute is present in the request model definition, the following attributes must be blank:

- BEANNAME
- CORBASERVER
- INTFACTYPE
- INTERFACE
- OPERATION
- TYPE

If you define a request model with this attribute you can only install it on CICS TS for OS/390 Version 1 Release 3. See [CICS Resource Definition Guide](#) for more information.

**Operation**

specifies a name, of up to 255 characters, matching the IDL operation or an IDL representation of the bean method signature. The acceptable characters are A-Z a-z 0-9 _ and accented alphabetic characters. However, you can use an asterisk as the last (or only) character to specify a generic name. Characters outside this range may give unpredictable results. Case is significant and should match the original Java or IDL source. However, to comply with CORBA, installation of REQUESTMODELS that specify OPERATION with values differing only in case from previously installed definitions, will be rejected.

In general, Java method names are mapped to an equivalent IDL name. However, there are cases where this is not possible, for example:

- Java method names that contain characters which are not permitted in IDL names.
- Overloaded Java method names.
- Java method names that begin with get and set.

Instead, IDL uses a “mangled” form of the Java name, that is, a valid and unambiguous IDL name derived from the Java name. The OPERATION attribute of the REQUESTMODEL must match the mangled name in this case.
For detailed information about how Java names are mapped to IDL names, see the *OMG Java to IDL mapping*, published by the Object Management Group (OMG), and available from www.omg.org.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, OPERATION must be blank.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Transid**

defines the 4-character name of the CICS transaction to be used when a new request processor transaction instance is required to process a method request matching the specification of the REQUESTMODEL.

The transaction definition must have as its initial program a JVM program whose JVMClass is com.ibm.cics.iiop.RequestProcessor. It must be installed in all the AORs of the logical EJB server; it need not be installed in listener regions that are not also AORs.

**Type**
specifies the type of REQUESTMODEL:

**GENERIC**
matches both enterprise bean and CORBA requests. The EJB attributes (BEANNAME and INTFACETYPE), CORBA attributes (MODULE and INTERFACE), and COMMON attributes (OPERATION) are valid.

**CORBA**
matches CORBA requests as specified by the CORBA attributes (MODULE and INTERFACE). Only the CORBA attributes and OPERATION attribute can be specified; the EJB attributes (BEANNAME and INTFACETYPE) and CICS TS V1R3 attributes (OMGINTERFACE, OMGMODULE and OMGOPERATION) must be blank.

If any of the obsolete attribute values (OMGINTERFACE, OMGMODULE and OMGOPERATION) is present in the request model definition, TYPE must be blank.

**EJB**
matches enterprise bean requests as specified by the EJB (BEANNAME and INTFACETYPE). Only the EJB attributes and COMMON attributes (OPERATION) are valid; the CORBA attributes (MODULE and INTERFACE) must be blank.

If one of the valid fields is generic (or BOTH in the case of INTFACETYPE), all the valid fields further down the panel must be an asterisk (*) (or BOTH in the case of INTFACETYPE).

*Figure 83 on page 256* shows the attributes that are valid for each type::
User data
(Optional.) Three 8-character fields provided for any site-specific data related to the request model. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 50. Session resource definitions

Session definitions describe the nature of logical links between systems that communicate using intersystem communication (ISC) or multiple region operation (MRO).

Accessing BAS session definitions

To display information about existing session definitions:

**Issue the command:**

```
SESSDEF [resdef]
```

where `resdef` is the specific or generic name of a session definition. If you omit this parameter, the view, illustrated in Figure 84, includes information about all existing session definitions within the current context.

**Select:**

SESSDEF from the ADMRES menu.

![Figure 84. The SESSDEF view](image)

Working with the SESSDEF view

The topics covered by this section are:

- "Availability" of the SESSDEF view
- "Action commands" for the SESSDEF view
- "Hyperlink fields" on page 258 for the SESSDEF view

Availability

Sessions can be defined for all managed CICS systems except CICS for OS/2 systems.

Action commands

Table 27 on page 258 summarizes the action commands you can use with the SESSDEF view.
### Table 27. SESSDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a session definition to a resource group, as described on page 43.</td>
</tr>
<tr>
<td>ALTER n/a</td>
<td>n/a</td>
<td>Apply global changes to a set of session definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a session definition in the data repository. The format of the resulting panels is similar to that shown in Figure 85 on page 259 and Figure 86 on page 259. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a session definition from the data repository, as described on page 31. The format of the resulting panels is similar to that shown in Figure 85 and Figure 86 on page 259. Most of the fields are modifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a session definition in the data repository.</td>
</tr>
</tbody>
</table>

**Hyperlink fields**

There are no hyperlink fields in the SESSDEF view.

**Defining sessions using BAS**

To create a session definition:

1. Issue the create primary (CREate) or line (CRE) action command from the SESSDEF view.
2. Fill in the fields on the first session definition panel (see Figure 85 on page 259):
3. To add the session definition to the data repository, press Enter. To continue creating a session definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second session definition panel (see Figure 86):

Figure 86. Creating a session definition - Page 2

5. To continue creating a connection definition:
   - For all systems other than CICS/MVS 2.1.2 systems, go to step 7 on page 114.
   - For CICS/MVS 2.1.2 systems only, issue the DOWN command.
6. For CICS/MVS 2.1.2 systems only, fill in the fields on the third connection definition panel (see Figure 87):

   COMMAND ===>
   Name    S001A    Version ==> 1
   Operid  ==> Operator identifier
   Oper Priority ==> 0 Operator priority code (0-255, blank)
   Oper RSL  ==> Session Resource security keys
   Oper Security ==> Device transaction security keys
   ==>  ==>  ==>  ==>  ==>  

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

   Figure 87. Creating a session definition - Page 3

7. To add the session definition to the data repository, press Enter.

Session definition attributes

The session definition attribute descriptions are:

**Autoconnect**

specifies how connections are to be established. What you have to specify for LU6.1 and APPC sessions is discussed below:

**APPC sessions**

For a VTAM-connected system that has Autoconnect set to YES or ALL on the connection definition:

**NO**

CICS does not attempt to bind any sessions when the connection is established.

**YES or ALL**

A contention-winner session is established (that is, BIND is performed) during CICS initialization, or when communication with VTAM is started using the CEMT SET VTAM OPEN command.

For a VTAM-connected system that has Autoconnect set to NO on the CONNECTION definition:

**ALL**

All sessions, not just contention winners, are established when the connection is acquired by issuing CEMT SET CONNECTION(name) ACQUIRED, or when the remote system itself initiates communication.

**NO**

CICS does not attempt to bind any sessions when the connection is established.

**YES**

Contention-winner sessions are established when the connection is acquired by issuing CEMT SET CONNECTION(sysid) ACQUIRED, or when the remote system itself initiates communication.

**LU6.1 sessions**

**NO**

The connection is not established at initialization or CEDA install.
YES The connection is established at initialization or CEDA install.

Build Chain
specifies whether CICS is to perform chain assembly before passing the input data to the application program.

NO Any TIOA received by an application program from this logical unit contains one request unit (RU).

YES Any terminal input/output area (TIOA) received by an application program from this logical unit contains a complete chain.

Connection
specifies the name of the connection definition that you want to use with this session definition. The name can be up to four characters in length.

Description
You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

Discreq
specifies whether disconnect requests are to be honored. DISCREQ applies to LUTYPE6.1 ISC sessions, but not to MRO sessions where CICS is not dealing with VTAM devices.

Inservice
For LU 6.1 ISC sessions on systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, specify YES or NO to indicate whether the session can be used for communication. If the definition is not for an LU 6.1 ISC session or will not be used on a CICS/MVS 2.1.2 or CICS/ESA 3.3 system, specify N/A.

IOarea Length
specifies the length, in bytes, of the terminal input/output area to be used for processing messages transmitted on the MRO link.

value1 Value1 specifies the minimum size of a terminal input/output area to be passed to an application program when a RECEIVE command is issued.

value2 If value2 is not specified, or is less than value1, it defaults to the value of value1.

You can specify value2 as greater than or equal to value1. In this case, when the size of an input message exceeds value1, CICS uses a terminal input/output area (TIOA) value2 bytes long. If the input message size also exceeds value2, the node abnormal condition program sends an exception response to the terminal.

If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

Maximum (APPC only)
specifies the maximum number of sessions that are to be supported for the modeset. Value1 must be greater than or equal to value2.

value1 The maximum number of sessions in the group. This value can be in the range 1 through 999. The default is 1.

value2 The maximum number of sessions that are to be supported as contention winners. This value can be in the range 0 to 999. The default is 0. Note that this operand has no meaning for a single session.
connection. (For further information on the effects of the MAXIMUM option, see the CICS Intercommunication Guide.)

If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

**Modename (APPC only)**

specifies the name that identifies a group of sessions for use on an APPC connection. The name can be up to eight characters in length, and must be the name of a VTAM LOGMODE entry defined to VTAM.

**Name**

Specify a 1- to 8-character name for the session definition.

**NEP class**

specifies the transaction class for the node error program.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>This results in a link to the default node error program module.</td>
</tr>
<tr>
<td>value</td>
<td>The transaction class for the node error program module. The value can be in the range 1 through 255.</td>
</tr>
</tbody>
</table>

If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

**NetNameQ**

specifies the name by which the remote IMS system knows this particular session. This is used for CICS-IMS sessions.

**Operid**

This attribute applies only to systems running CICS/MVS 2.1.2. Specify a 3-character operator ID to be associated with the sessions.

**Oper Priority**

This attribute applies only to systems running CICS/MVS 2.1.2. Specify the operator priority to be used in determining task processing priority for each transaction attached to the sessions, in the range 0 through 255. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Oper RSL**

This attribute applies only to systems running CICS/MVS 2.1.2. Identify the preset resource security keys for the sessions by specifying one or more decimal values in the range 1 through 24. If you do not want to identify any resource security keys, specify 0.

**Oper Security**

This attribute applies only to systems running CICS/MVS 2.1.2. Identify the preset transaction security keys for the device by specifying one or more decimal values in the range 1 through 64.

**Protocol**

specifies the type of protocol that is to be used for an intercommunication link (ISC or MRO).

- **APPC (LUTYPE6.2)**
  
  Advanced program-to-program communication (APPC) protocol. Specify this for CICS-CICS ISC.

- **EXCI**
  
  The external CICS interface. Specify this to indicate that the sessions are for use by a non-CICS client program using the external CICS interface. If you specify EXCI, you must leave SENDCOUNT blank.
LU61  LUTYPE6.1 protocol.

NOTAPPLIC
   The session does not represent an intercommunication link.

Recov Notify
   For systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, specify how a terminal user should be notified of an XRF takeover:

   NONE  No notification is given.

   MESSAGE
      A message is displayed, provided the terminal is defined with ATI(YES) and is capable of displaying a BMS map.

   TRANSACTION
      The transaction specified in the RMTRAN system initialization parameter is initiated, provided the terminal is defined with ATI(YES).

   N/A  The Recov Notify field does not apply to this definition and should not be validated.

Recov Option
   This option applies to the recovery of sessions in a CICS region running with VTAM persistent sessions, or with XRF.

Recv/Send count
   Specify the number of MRO, LU type 6.1, or EXCI sessions that usually either receive before sending (Recv) or send before receiving (Send):

   value1
     Recv count:
         blank   These sessions can send only; there are no receive sessions.

         number
            The number of receive sessions on connections that specify LU61, EXCI, or NOTAPPLIC in the Protocol field of the connection definition (CONNDEF).

            CICS uses the number to generate the last two or three characters of the session names. If you are using the default receive prefix (<), or your own 1-character prefix, specify a number in the range 1 through 999. If you specify a 2-character receive prefix, the number is restricted to the range 1 through 99.

   value2
      Send count:
         blank   These sessions can receive only; there are no send sessions.

            The Send count field must be blank when the sessions are on an EXCI connection.

         number
            The number of send sessions on connections that specify LU61 or NOTAPPLIC in the Protocol field of the connection definition (CONNDEF).

            CICS uses the number to generate the last two or three characters of the session names. If you are using the default send prefix (>), or your own 1-character prefix, specify a
number in the range 1 through 999. If you specify a 2-character send prefix, the number is restricted to the range 1 through 99.

**Recv/Send prfx**
Specify a 1- or 2-character prefix that CICS is to use as the first 1 or 2 characters of the receive and send session names (the names of the terminal control table terminal entries (TCTTEs) for the sessions). The prefix you select must not result in any duplicate session or terminal names.

**value1**
- **Recv prefix:**
  - \(<\) Optional for MRO or EXCI sessions on systems running CICS/ESA 4.1 or later.
  - **prefix** Specify your own 1- or 2-character prefix. A hyphen (-) is not supported for LU 6.1 sessions on the host.

**value2**
- **Send prefix:**
  - \(>\) Optional for MRO or EXCI sessions on systems running CICS/ESA 4.1 or later.
  - **prefix** Specify your own 1- or 2-character prefix. A hyphen (-) is not supported for LU 6.1 sessions on the host.

**Recv/Send size**
Specify the maximum VTAM request unit (RU) size that these sessions are capable of receiving and sending, in the range 1 through 30720 for LU 6.1 sessions, or 256 through 30720 for APPC sessions. If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

**Relreq**
specifies whether CICS is to release the logical unit upon request by another VTAM application program.

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**SessName**
specifies the symbolic identification to be used as the local half of a session qualifier pair in a CICS intercommunication parallel session.

The name can be up to four characters in length.

**Session priority**
specifies the terminal priority. This decimal value (0 through 255) is used in establishing the overall transaction processing priority. (Transaction processing priority is equal to the sum of the terminal priority, transaction priority, and operator priority; this must not exceed 255.) If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Transaction**
For systems running CICS/MVS 2.1.2, specify the 1- to 4-character ID of the transaction to be initiated from this device.

**Userarealen**
Specify the length, in bytes, of the user area for this session, in the range 0 through 255. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.
User data
(Optional.) Three 8-character fields provided for any site-specific data related to the session. CICSPlex SM makes no use of this user data.

Userid
specifies a user identifier used for sign-on (SEC=YES or MIGRATE) and referred to in security error messages, security violation messages, and the audit trail.
The name can be up to eight characters in length.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 51. 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 BAS TCP/IP service definitions

To display information about existing TCP/IP service definitions:

**Issue the command:**

```
TCPDEF [resdef]
```

where *resdef* is the specific or generic name of a TCP/IP service definition. If you omit this parameter, the view, illustrated in Figure 88, includes information about all existing TCP/IP service definitions within the current context.

**Select:**

TCPDEF from the ADMRES menu.

Figure 88. The TCPDEF view

Working with the TCPDEF view

The topics covered by this section are:

- [Availability](#) of the TCPDEF view
- [Action commands](#) for the TCPDEF view
- “Hyperlink fields” on page 268 for the TCPDEF view

Availability

TCP/IP services can be defined for all managed CICS systems at CICS Transaction Server for OS/390 Version 1 Release 3 and later.

Action commands

Table 28 summarizes the action commands you can use with the TCPDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a TCP/IP service definition to a resource group, as described on page 45.</td>
</tr>
</tbody>
</table>

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### TCPDEF

**Table 28. TCPDEF view action commands (continued)**

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of TCP/IP service definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a TCP/IP service definition in the data repository. The format of the resulting panel is similar to that shown in Figure 88 on page 267. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a TCP/IP service definition and add it to the data repository, as described on page 268.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS Transaction Server for OS/390 Version 1 Release 3 or later, install a TCP/IP service definition in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a TCP/IP service definition from the data repository, as described on page 51.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a TCP/IP service definition in the data repository. The format of the resulting panel is similar to that shown in Figure 88. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the TCPDEF view.

### Defining TCP/IP services using BAS

**To create a TCP/IP service definition:**

1. Issue the create primary (CREate) or line (CRE) action command from the TCPDEF view.
2. Fill in the fields in the TCP/IP definition panel (see Figure 89 on page 269):
3. To add the program definition to the data repository, press Enter.

**Installing a BAS TCP/IP service definition**

To install a TCP/IP service definition in an active system, issue the INS command.

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

- The CICSPlex SM TCPIPS command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE TCPIPSERVICE command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE TCPIPSERVICE command; see [CICS System Programming Reference](#).

**TCP/IP service definition attributes**

The TCP/IP service definition attribute descriptions are:

**Authenticate**

specifies the level of authentication required on connections associated with this TCPIPSERVICE definition. All the attribute values apply to HTTP; NO and CERTIFICATE also apply to IIOP.

- **NO**
  
  No authentication of the client is required. However, if a registered certificate is provided by the client, it is used. This is the default.

- **BASIC**
  
  HTTP Basic authentication of the client is attempted. If the client has
sent an HTTP Authorization header, its contents are decoded as a user
id and password. If these are valid, the user id is passed to the
user-replaceable module for this TCPIPSERVICE definition. Otherwise,
an HTTP 401 response is returned, together with a WWW-Authenticate
header, which causes the browser program to prompt the user for a
new user id and password. These are returned in the required
authorization header. This process continues until the client either
supplies a valid user id and password, or cancels the connection.

CERTIFICATE
A valid X.509 client certificate is required from the client, and it must
map to a valid trusted user id in the external security manager’s
database. If such a certificate is not received, the connection is rejected
with an HTTP 403 response. Otherwise, the derived user id is passed
to the user-replaceable module for this TCPIPSERVICE definition.

This attribute cannot be specified unless SSL(CLIENTAUTH) is also
specified.

AUTOREGISTER
This allows the client to register a certificate automatically. If the client
presents a certificate that is not registered, an HTTP Basic
authentication dialogue is entered, in which the client must enter the
user id for the certificate to be registered, together with its
corresponding password. If this dialogue is completed successfully, the
certificate is registered to the specified user id.

This attribute cannot be specified unless SSL(CLIENTAUTH) is also
specified.

AUTOMATIC
This combines the AUTOREGISTER and BASIC functions. It attempts
to authenticate the client as best it can. If a registered certificate is
available, it is used. Otherwise, Basic authentication is used to prompt
the client for a user id and password. If an unregistered certificate is
used, and Basic authentication is successful, the certificate is
registered.

Backlog
specifies the number of TCP/IP connections for this service which are queued
in TCP/IP before TCP/IP starts to reject incoming client requests.

Certificate
specifies the label of an X.509 certificate that is to be used in the SSL
handshake for the TCP/IP service. Certificate labels can be up to 32 bytes, and
are specified for the CICS region’s userid within a key ring defined in the
external security manager’s database (for example, as defined by the
RACDCERT command). If this attribute is omitted, the default certificate defined
in the key ring for the CICS region userid is used.

Description
You can provide a description of the resource you are defining in this field. The
description text can be up to 30 characters in length.

Name
Specify a 1- to 8-character name for the TCP/IP service definition.

Portnumber
specifies, in the range 1 through 65535, the decimal number of the port on
which CICS is to listen for incoming client requests.
The well-known ports are those from 0 through 1023. It is advisable to use well-known port numbers only for those services to which they are normally assigned. The well known ports for services supported by CICS are:

- **80**: HTTP (non-SSL)
- **443**: HTTP with SSL
- **683**: IIOP (non-SSL)
- **684**: IIOP with SSL

You should take care to resolve conflicts with any other servers on the same MVS image that might use the well-known ports.

Port sharing has to be enabled for any port that you want to share across CICS systems within an MVS image. For more information, see [CICS Performance Guide](#).

**Protocol**

Identifies to CICS the type of service to be provided on the TCP/IP port. Values are:

- **HTTP**: connections are handled by CICS Web support.
- **IIOP**: connections are handled by CICS IIOP support. IIOP is required for TCPIPSERVICEs that are to accept inbound requests for enterprise beans.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**SocketClose**

Specifies if, and for how long, CICS should wait before closing the socket, after issuing a receive for incoming data on that socket.

- **No**: The socket is left open until data is received, or until it is closed by the client. While the socket is open it is unavailable to other tasks, and its associated CICS task is suspended indefinitely.

- **0-240000**: The period of time (in HHMMSS format) after which CICS is to close the socket. Specifying 000000 closes the socket immediately if no data is available for any RECEIVEs other than the first one.

**SSL**

Specifies whether the service is to use SSL. The default is NO. YES means that SSL flows other than client authentication are accepted for this service. CLIENTAUTH means that all SSL flows, including client authentication are accepted for this service.

**Status**

Indicates the initial status of the service after installation. Set it to OPEN if CICS is to begin listening for this service after installation. Set to CLOSE if CICS is not to listen on behalf of this service after installation.

**Transaction**

Specifies the 4-character ID of the CICS transaction attached to process new requests received for this service.

**TSQprefix**

Specifies the 6-character prefix of the temporary storage queue used to store inbound data and Web documents created by applications.
TCPDEF

**URM**

specifies the name of the user-replaceable module to be invoked by this service. Implementation of this depends on the service being defined; this can be the name of any CICS program. This can be the name of any CICS program for Web services, but is ignored for IIOP services, since the same URM is always called.

**User data**

Three 8-character fields provided for any site-specific data related to the TCP/IP service. CICSPlex SM makes no use of this user data.

**Version**

(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 52. Transient data queue resource definitions

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

Accessing BAS transient data queue definitions

To display information about existing transient data queue definitions:

**Issue the command:**

```
TDQDEF [resdef]
```

where `resdef` is the specific or generic name of a transient data queue definition. If you omit this parameter, the view, illustrated in Figure 90, includes information about all existing transient data queue definitions within the current context.

**Select:**

TDQDEF from the ADMRES menu.

---

```
26FEB2001 11:30:30  --------- INFORMATION DISPLAY --------------------------
COMMAND ===> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===> W1 ==TDQDEF==========EYUPLX01=EYUPLX01=26FEB2001==11:30:30=CPSM======3==
CMD Name Ver Created Changed Description
--- ----- --- -------------- -------------- -----------------------
EQEX 1 1/09/97 14:54 1/09/97 14:54 TDQ - Extra
EQID 1 1/09/97 14:59 1/10/97 08:03 TDQ - Indirect
EQIN 1 1/09/97 15:06 1/09/97 15:06 TDQ - Intra
```

**Figure 90. The TDQDEF view**

Working with the TDQDEF view

The topics covered by this section are:

- "Availability" of the TDQDEF view
- "Action commands" for the TDQDEF view
- "Hyperlink fields" on page 274 for the TDQDEF view

Availability

Transient data queues can be defined for all managed CICS systems.

Action commands

Table 29 summarizes the action commands you can use with the TDQDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a transient data queue definition to a resource group, as described on page 45.</td>
</tr>
</tbody>
</table>
### Table 29. TDQDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of transient data queue definitions, as described on page 271.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a transient data queue definition in the data repository. The format of the resulting panels is similar to that shown in Figure 91 on page 275 through Figure 95 on page 277. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREATE</td>
<td>CRE</td>
<td>Create a transient data queue definition and add it to the data repository, as described on page 274.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a transient data queue in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a transient data queue definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a transient data queue definition in the data repository. The format of the resulting panels is similar to that shown in Figure 91 on page 275 through Figure 95 on page 277. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the TDQDEF view.

### Defining transient data queues using BAS

To create a transient data queue definition:

1. Issue the create primary (CREATE) or line (CRE) action command from the TDQDEF view.
2. Fill in the fields on the first transient data queue definition panel (see Figure 91 on page 275):
3. To add the transient data queue definition to the data repository, press Enter. To continue creating a transient data queue definition, issue the DOWN command. The panel that is displayed depends upon the type of transient data queue you are defining:

- If you typed EXTRA in the Type field, go to step 4.
- If you typed INTRA in the Type field, go to step 5 on page 276.
- If you typed INDIRECT in the Type field, go to step 6 on page 276.
- If you typed REMOTE in the Type field, go to step 7 on page 276.

Otherwise, issue one of the commands available from this panel.

4. To define an extrapartition transient data queue, fill in the fields on the panel (see Figure 92):

```
COMMAND ===>
Name ===> EQEX Version ===> 1
Description ===> TDQ - Extra
RESGROUP ===>
User Data ===>

TYPE ===> EXTRA Transient data queue type
(EXTRA, INTRA, INDIRECT, REMOTE)

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

Figure 91. Creating a transient data queue definition - Page 1

```
4. To define an extrapartition transient data queue, fill in the fields on the panel (see Figure 92):

```

Figure 92. Creating an EXTRA transient data queue definition
```
To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

5. To define an intrapartition transient data queue, fill in the fields on the panel (see Figure 93):

| COMMAND ===|  
| Name ===| EQIN | Version ===| 1 |

**INTRA PARAMETERS:**

- **Atifacility ===** TERMINAL  Destination type (TERMINAL, FILE, SYSTEM)
- **Recovstatus ===** NO  Recovery (NO, PHYSICAL, LOGICAL)
- **Facilityid ===** Sysid/TERMid for intrapartition destination
- **Transid ===** Automatically initiated transaction
- **Triggerlevel ===** 1  Trigger level for TRANSID (0-32767, blank)
- **Userid ===** Userid for security checking
- **Wait ===** N/A  Wait for UOW resynchronization (YES, NO, N/A)
- **Waitaction ===** N/A  Wait action (QUEUE, REJECT, N/A)

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

---

**Figure 93. Creating an INTRA transient data queue definition**

To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

6. To define an indirect transient data queue, fill in the fields on the panel (see Figure 94):

| COMMAND ===|  
| Name ===| EQID | Version ===| 1 |

**INDIRECT PARAMETERS:**

- **Indirectname ===** Transient data destination

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

---

**Figure 94. Creating an INDIRECT transient data queue definition**

To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

7. To define a remote transient data queue, fill in the fields on the panel (see Figure 95 on page 277):
To add the transient data queue definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

Installing BAS transient data queue definitions

To install a transient data queue in an active system, issue the INS command.

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

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

Transient data queue definition attributes

The transient data queue definition attribute descriptions are:

**Atifacility (intrapartition queues only)**

specifies the type of destination the queue represents.

- **FILE** The transient data queue is to be used as a file of data records that are not associated with a particular terminal or system. ATI does not require a terminal to be available.

- **SYSTEM** The transient data queue is to be associated with the specified system identifier. The system must be defined to the local CICS system using an RDO CONNECTION definition.

  Specifying Atifacility=SYSTEM initiates a distributed transaction processing (DTP) session. For more information about DTP considerations in application programming, see the CICS Application Programming Guide.

- **TERMINAL** The transient data queue is to be associated with the terminal. The terminal must be defined to CICS. If you do not specify TERMINAL, it defaults to the value of FACILITYID. If ATI is used, as specified in the
TRANSID and TRIGGERLEVEL attributes, the transaction that is initiated is associated with the specified terminal, which must be available before the transaction can be initiated.

**Blockformat (extrapartition queues only)**

specifies the block format of the data set. There is no default. If you specify the record format (RECORDFORMAT attribute) as undefined (or allow it to default), you cannot specify anything for the BLOCKFORMAT attribute.

**BLOCKED**

Blocked record format.

**UNBLOCKED**

Unblocked record format.

**NOTAPPLIC**

No block format is defined for this data set.

*blank* The block format will be derived from the associated data set.

**Blocksize (extrapartition queues only)**

specifies the length of the block, in bytes. The block length should be in the range 0 through 32767. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Databuffers (extrapartition queues only)**

specifies the number of buffers to be provided, up to a maximum of 255. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Dname**

specifies a 1-to 8-character value that may refer to a data set defined in the startup JCL.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**Disposition (extrapartition queues only)**

specifies the disposition of the data set.

**MOD** CICS first assumes that the data set exists. For an existing sequential data set, MOD causes the read/write mechanism to be positioned after the last record in the data set. The read/write mechanism is positioned after the last record each time the data set is opened for output.

**OLD** The data set existed before this job step.

**SHR** The data set existed before this job step and can be read by other concurrent jobs.

**Erroroption (extrapartition queues only)**

specifies the action to be taken if an I/O error occurs. This can be one of the following:

**IGNORE**

The block that caused the error is accepted.

**SKIP** The block that caused the error is skipped.
Facilityid (intrapartition queues only)
specifies a 4-character field that contains either:

- The system identifier for an intrapartition queue that specifies ATIFACILITY(SYSTEM)
- The terminal identifier where ATIFACILITY(TERMIAL) is specified.

If you do not specify anything in the FACILITYID field, it defaults to the name of the queue in each case.

If ATIFACILITY(FILE) is specified, the FACILITYID field must be left blank.

Indirectname (indirect queues only)
specifies the name of a transient data queue. The queue can be intrapartition, extrapartition, remote, or indirect.

Opentime (extrapartition queues only)
specifies the initial status of the data set. The initial status can be one of the following:

- DEFERRED
  The data set remains closed until you indicate that you want to open it by using the CEMT INQUIRE|SET TDQUEUE command.

- INITIAL
  The data set is to be opened at install time.

Printcontrol (extrapartition queues only)
specifies the control characters to be used. There is no default.

- ASA
  ASA control characters.

- MACHINE
  Machine control characters.

- N/A
  The Printcontrol value does not apply to this definition and should not be validated.

- blank
  The control characters will be derived from the associated data set.

Recordformat (extrapartition queues only)
specifies the record format of the data set.

- FIXED
  Fixed records. If you specify RECORDFormat(Fixed), you must also specify a block format.

- VARIABLE
  Variable records. If you specify RECORDFormat(Variable), you must also specify a block format.

- UNDEFINED
  Record format not defined.

- blank
  The record format will be derived from the associated data set.

Recordsize (extrapartition and remote queues)
specifies the record length in bytes, in the range 0 through 32767. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Recovstatus (intrapartition queues only)
specifies the recoverability attributes of the queue in the event of an abnormal termination of either CICS or the transaction that is processing the queue. The recoverability attributes are:
**LOGICAL**

This queue is logically recoverable.

**NO**

This queue is not recoverable.

**PHYSICAL**

This queue is physically recoverable.

**Remotename (remote queues only)**

(Optional.) specifies, if the transient data queue resides on a remote system, the 4-character name by which the queue is known in the system or region on which the queue resides.

**Remotelength (remote queues only)**

(Optional.) specifies the length in bytes, in the range 1 through 32767. The default value is 1. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Remote Sysid**

(Optional.) specifies, if the transient data queue resides on a remote system, the name of the connection that links the target (local) system to the related (remote) system where the transient data queue resides. If this parameter is not supplied, RemoteSystem is derived directly from the CICS system id of the related system, and the connection that links the target system to the related system must have the same name as the CICS system id of the related system.

**RESGROUP**

(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Rewind (extrapartition queues only)**

specifies the disposition of a tape data set. The disposition can be one of the following:

**LEAVE**

The current tape is positioned at the logical end of the data set.

**REREAD**

The current tape is positioned at the logical start of the data set.

**Sysoutclass (extrapartition queues only)**

Instead of allocating an extrapartition queue to a physical data set, you can allocate it to a system output data set (referred to as SYSOUT).

Use the SYSOUTCLASS attribute to specify the class of the SYSOUT data set.

- **x** A single alphabetic character that represents an output class that has been set up on the MVS system on which the CICS job is to run.
- ***** This is the default class. SYSOUTCLASS defaults to an asterisk (*) if you leave the DSNAME attribute blank and specify OUTPUT for the Typefile field.
- **blank** SYSOUTCLASS defaults to a blank character if you leave the DSNAME attribute blank and specify INPUT or RDBACK for the Typefile attribute.

**Transid (intrapartition queues only)**

specifies the name of the transaction that is to be automatically initiated when the trigger level is reached.
Trigger level (intrapartition queues only)
specifies the number of records to be accumulated before a task is
automatically initiated to process them. (This number is known as the trigger
level.)

If you specify the TRANSID attribute, TRIGGERLEVEL defaults to 1. Specify a
transaction id, the trigger level is ignored. If you leave this field blank,
CICSp lex SM uses the default value for your CICS environment, if there is one.

Type
specifies the following types of transient data queue:

- EXTRA
  A queue that is outside the CICS region is allocated to CICS.

- INDIRECT
  An indirect queue is a queue that does not point to an actual data set,
  but to another queue. An indirect queue can be extrapartition,
  intrapartition, remote, or even another indirect queue.

- INTRA
  A queue for data that is to be stored temporarily.

- REMOTE
  A queue that is located on a remote system.

Typefile
specifies the type of data set the queue is to be associated with.

- INPUT
  An input data set.

- OUTPUT
  An output data set.

- RDBACK
  An input data set that is to be read backward.

  Note: This is appropriate only for data sets that have been defined on
  magnetic tape.

Userid (intrapartition queues only)
specifies the userid you want CICS to use for security checking when verifying
the trigger-level transaction specified in the TRANSID field.

Wait (intrapartition queues only)
specifies whether an in-doubt unit of work (UOW) that has modified a logically
recoverable queue should wait for resynchronization with its coordinator to
determine whether to commit or back out the changes.

- NO
  The UOW is not to wait. Any changes made to recoverable resources
  are to be backed out or committed, as specified by the ACTION
  attribute on the TRANSACTION resource definition.

- YES
  The UOW is to wait, and any action required while waiting is
determined by the WAITACTION attribute.

- N/A
  The Wait field does not apply to this definition.

Waitaction (intrapartition queues only)
specifies the action CICS is to take for an in-doubt unit of work (UOW) if the
definition for this queue specifies WAIT(YES). The possible actions are:
**TDQDEF**

**QUEUE**

The UOW is in-doubt and waiting; any locks held by the UOW for this queue remain active until the final state of the UOW is known. This means that tasks are suspended rather than receiving the LOCKED response. When the final state of the UOW is known, any changes that it has made are committed or backed out. Until then, any further requests of the following types that need one of the active locks must wait:

- **READQ**, if the in-doubt UOW had issued **READQ** or **DELETEQ** requests.
- **WRITEQ**, if the in-doubt UOW had issued **WRITEQ** or **DELETEQ** requests.
- **DELETEQ**, if the in-doubt UOW had issued **READQ**, **WRITEQ** or **DELETEQ** requests.

**REJECT**

The UOW is in-doubt and is waiting. Any lock held by the UOW for this queue is retained until the final state of the UOW is known. When the final state is known, any changes the UOW has made are committed or backed out. Until then, any further request that needs one of the retained locks is rejected, and a LOCKED response is returned. **WAITACTION=REJECT** causes LOCKED to be raised in exactly the same circumstances as those in which **QUEUE** causes a transaction to wait.

**N/A**

The Waitaction field does not apply to this definition and should not be validated.
Chapter 53. Terminal resource definitions

Terminal definitions describe the unique characteristics of the terminal devices (including visual display units, printers, and operating system consoles) with which CICS communicates.

Accessing BAS terminal definitions

To display information about existing terminal definitions:

**Issue the command:**

```
TERMDEF [resdef]
```

where `resdef` is the specific or generic name of a terminal definition. If you omit this parameter, the view, illustrated in Figure 96, includes information about all existing terminal definitions within the current context.

**Select:**

TERMDEF from the ADMRES menu.

![Figure 96. The TERMDEF view](image)

Working with the TERMDEF view

The topics covered by this section are:

- "Hyperlink fields" on page 294 of the TERMDEF view
- "Action commands" for the TERMDEF view
- "Hyperlink fields" on page 284 for the TERMDEF view

Availability

Terminals can be defined for all managed CICS systems.

Action commands

Table 30 summarizes the action commands you can use with the TERMDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a terminal definition to a resource group, as described on page 45</td>
</tr>
</tbody>
</table>
## TERMDEF

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of terminal definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a terminal definition in the data repository. The format of the resulting panels is similar to that shown in Figure 97 on page 285 and Figure 98 on page 286. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a terminal in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a terminal definition from the data repository, as described on page 31. The format of the resulting panels is similar to that shown in Figure 97 and Figure 98 on page 286. Most of the fields are modifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a terminal definition in the data repository.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the TERMDEF view.

### Defining terminals using BAS

To create a terminal definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TERMDEF view.
2. Fill in the fields on the terminal definition panels (The number of panels displayed depends on the characteristics of your terminal; Figure 97 on page 285 shows the terminal definition fields, for convenience in one list):
### Figure 97. Creating a terminal definition

3. To continue:
   - For all systems other than CICS for OS/2 systems, go to step 5 on page 286.
   - For CICS for OS/2 systems only, issue the DOWN command.

4. For CICS for OS/2 systems only, fill in the fields on the next panel (see Figure 98 on page 286):

```plaintext
<table>
<thead>
<tr>
<th>COMMAND</th>
<th>Name</th>
<th>Description</th>
<th>RESGROUP</th>
<th>User Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>=====</td>
<td>-------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>For all systems other than CICS for OS/2 systems, go to step 5 on page 286.</td>
<td>For CICS for OS/2 systems only, issue the DOWN command.</td>
<td>For CICS for OS/2 systems only, fill in the fields on the next panel (see Figure 98 on page 286):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. To add the terminal definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

Installing BAS terminal definitions

To install a terminal into an active system, issue the INS command.

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

- The CICSPlex SM TERMNL command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE TERMINAL command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE TERMINAL command; see [CICS System Programming Reference](#).

Terminal definition attributes

The terminal definition attribute descriptions are:

**3151 ASYNC bps (CICS for OS/2 only)**
Specify the communications rate of the terminal attached to the communications port specified in the 3151 ASYNC Port field. The communications rate, in bits per second (bps), may be one of the following: 110, 150, 300, 600, 1200, 1800, 2400, 3600, 4800, 9600, 19200.

**3151 ASYNC Port (CICS for OS/2 only)**
Specify the communications port used for connecting a 3151 terminal to your workstation. Valid values are COM1 to COM8.
Altprintcopy
specifies whether the hardware COPY feature is to be used to satisfy a print request on the printer named in the ALTPRINTER attribute. For further details, see the PRINTERCOPY attribute.

NO CICS should use the hardware COPY feature.
YES CICS should not use the hardware COPY feature.

Altpinter
specifies the name of a 3270 printer to be used, if the printer named in the PRINTER attribute of this terminal definition is unavailable. The name may be up to four characters in length. For further details, see the PRINTER attribute. If you specify an ALTPRINTER without specifying a PRINTER, ALTPRINTER is ignored.

ATI Status
Specify whether or not the terminal is available for use by transactions that are automatically initiated from within CICS.

YES The terminal is available for use by transactions that are automatically initiated from within CICS.
NO The terminal is not available for use by transactions that are automatically initiated from within CICS.

Attachsec (APPC only)
specifies the level of attach time user security required for the connection.

LOCAL The authority of the user is taken to be that of the link itself, and you rely on link security alone to protect your resource.

IDENTIFY Incoming attach requests must specify a user identifier. Specify IDENTIFY when the connecting terminal has a security manager.

MIXIDPE A connection is able to support attaches using either or both of the IDENTIFY and PERSISTENT security types. The security type used depends on the incoming attach.

PERSISTENT This involves a user sign-on to a remote system that persists over multiple conversations until the user signs off from the remote system. In this way, the user’s ID and password are passed only on the first (sign-on) attach. Subsequent attach requests require only the user’s ID.

VERIFY Incoming attach requests must specify a user identifier and a user password. Specify VERIFY when the connecting terminal has no security manager and therefore requires verification.

Autoinsmodel
specifies whether this terminal definition can be used as a model terminal definition for autoinstall.

NO This definition is not used as a model for autoinstall. It is used only as a definition for a specific device that is not autoinstalled.
ONLY This definition is used only as a model for autoinstall. It is not used as a definition for a specific device.
TERMDEF

YES  This definition is used for a specific device that is not autoinstalled. The definition is also used as a model for automatic installation.

Autoinsname
specifies the name by which this model definition is known in the autoinstall control program. The name can be up to eight characters in length.

You need specify this only if AUTINSTMODEL is YES or ONLY.

Autoconnect (CICS for OS/2 only)
Specify whether or not the terminal is to connect automatically at start up.

YES  The terminal is to connect automatically at start up.

NO   The terminal is not to connect automatically at start up.

BindPassword (APPC only)
specifies, for APPC links on systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, a password of up to 16 hexadecimal characters (0-9, A-F).

The password does not appear while you are typing it and it is not displayed on the update or browse panel. If you specify a password, the BindPassword field name appears highlighted on the update and browse panels to indicate a password exists; the field itself contains blanks. You can use the update panel to change an existing password or add a new password.

Bindsecurity (APPC only)
specifies whether an external security manager (ESM) is being used for bind-time security.

NO   No external bind-time security is required.

YES  If security is active and the XAPPC system initialization parameter is set to YES, an ESM is called.

Code Page (CICS for OS/2 only)
Specify the code page to be used by this terminal for displaying data. Valid values range from 1 to 65534.

Color (CICS for OS/2 only)
Specify whether or not the terminal supports color.

YES  The terminal supports color.

NO   The terminal does not support color.

Console
If the CICS system is running under a release of MVS earlier than MVS/ESA SP 4.1, indicate whether the terminal is a console device:

NO   The terminal is not a console device.

number
A number in the range 01 through 250 (but not 128) that identifies an existing console. This number must match the identification numbers assigned to consoles according to their sequence in the CONSOLnn member of MVS SYS1.PARMLIB.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

ConsoleName
You can use this attribute only if the CICS system is running under MVS/ESA SP 4.1 or later. The length of CONSNAME must be 2–8 characters and must begin with an alphabetic character or one of #, @, or $. It uniquely identifies the
console device within a CICS region, regardless of the MVS image to which it is
connected; that is, you cannot install two console definitions with the same
CONSNAME. The CONSNAME corresponds to the name defined for the
console in the MVS SYS1.PARMLIB member, CONSOLnn.

**Description**
You can provide in this field a description of the resource you are defining. The
description text can be up to 30 characters in length.

**Highlight (CICS for OS/2 only)**
Specify whether or not highlighting of errors is required.

- **YES** Highlighting of errors is required. This is the default.
- **NO** Highlighting of errors is not required.

**Initial Transaction Required (CICS for OS/2)**
Specify whether or not an initial transaction is to be run on the terminal.

- **YES** An initial transaction is to be run on the terminal.
- **NO** An initial transaction is not to be run on the terminal.

specifies the status of the terminal that is being defined.

- **YES** Transactions may be initiated and messages may automatically be sent
to the terminal.
- **NO** The terminal can neither receive messages nor transmit input.

**Katakana (CICS for OS/2 only)**
Specify whether or not the terminal supports Katakana.

- **YES** The terminal supports Katakana.
- **NO** The terminal does not support Katakana.

**Model**
Specify whether or not this terminal is a model.

- **YES** This terminal definition is a model.
- **NO** This terminal in not a model.

**Modename (APPC single session terminals only)**
specifies the name that is passed to VTAM as the LOGMODE name.

**Name**
Specify a 1- to 4-character ID for the terminal definition.

**Natlang**
specifies the language in which all NLS-enabled messages are displayed for
this terminal.

Use only one character, which can be A-Z 1-9.

- **blank** If you leave this blank and do not supply a value, CICS uses the
  system default as specified in the system initialization table (SIT).

- **E** English
- **K** Kanji

specifies the network name that identifies the terminal to ACF/VTAM.

If you do not specify a name, the NETNAME defaults to the TERMINAL name.

**Operid**
Specify a 3-character operator ID to be associated with the terminal.
TERMDEF

Oper Priority
Specify the operator priority to be used in determining task processing priority
for each transaction attached to the terminal, in the range 0 through 255. If you
leave this field blank, CICSPlex SM uses the default value for your CICS
environment, if there is one.

Oper RSL
Identify the preset resource security keys for the terminal by specifying one or
more decimal values in the range 1 through 24. If you do not want to identify
any resource security keys, specify 0.

Oper Security
Identify the preset transaction security keys for the device by specifying one or
more decimal values in the range 1 through 64.

Pool
specifies the pool name for a 3600 or 3650 pipeline terminal pooled with other
pipeline terminals.

Printer
specifies the name of the primary 3270 printer to be used to respond to an
ISSUE PRINT command, or a PRINT request from an operator pressing a
program access (PA) key. The name may be up to four characters in length.

Printer Close Model (CICS for OS/2 only)
Specify when the printer will be released.

EOF Release the printer at end of file.

EOT Release the printer at end of task.

blank

Printercopy
specifies whether the hardware COPY feature is to be used to satisfy a print
request on the printer named in the PRINTER attribute of this terminal
definition.

Remote name
specifies the name by which the terminal is known in the system or region that
owns the terminal. The name can be up to four characters in length.

Remote Sysnet
specifies the network name (APPLID) of the region that owns the terminal.

Remote Sysid
specifies the name that identifies the intercommunication link to the system that
owns the terminal. The name can be up to 4 characters in length.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the
definition is to be automatically added.

Screen Height (CICS for OS/2 only)
Specify the number of lines available on your terminal. Valid values range from
1 to 43. The default is 24.

Screen Width (CICS for OS/2 only)
Specify the number of columns available on your terminal. Valid values range
from 1 to 132. The default is 80.

Valid pairings for 3270 terminals are:
Security name
specifies the security name of the remote system.

Tasklimit
specifies the number of concurrent tasks allowed to run in a pipeline session or in a pool of pipeline sessions.

   NO   No concurrent tasks are allowed.

   number
   The number of concurrent tasks allowed to run, in the range 1 through 32767.

Terminal Type (CICS for OS/2 only)
Specify the type of terminal hardware with which this terminal definition will be associated. Valid values are:

   3270 terminal
   3270 printer
   Sequential
   3151 ASCII terminal
   3270 DBCS printer
   3270 DBCS terminal

Termpriority
specifies the terminal priority. This decimal value (0 through 255) is used in establishing the overall transaction processing priority. (Transaction processing priority is equal to the sum of the terminal priority, transaction priority, and operator priority, not exceeding 255.) If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Transaction
specifies a 1-to 4-character name of the transaction that is to be initiated each time input is received from the terminal when there is no active task.

specifies the name of the TYPETERM definition to be associated with this TERMINAL definition. The name can be up to eight characters in length.

Upper case translation (CICS for OS/2 only)
Specify whether or not input text is to be converted to upper case.

   YES   The input text is to be converted to upper case.
   NO    The input text is not to be converted to upper case.

Usedfltuser (APPC only)
Indicate whether the terminal should use the default user ID specified for a CICS system:

   N/A   The Usedfltuser value does not apply to this definition and should not be validated by CICSPlex SM.
   NO    Do not use the default user ID.
   YES   Use the default user ID specified on the DFLTUSER SIT parameter for the CICS system.

User Area Size (CICS for OS/2 only)
Specify the size of the TCT area used to pass information between application
TERMDEF

programs running on the same terminal. The value must match that specified on a host CICS system when transaction routing is used.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the terminal. CICSPlex SM makes no use of this user data.

Userid
specifies a user identifier used for sign-on and referred to in security error messages, security violation messages, and the audit trail. It must be a valid userid defined to the security manager.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

Window style (CICS for OS/2 only)
Specify the window style:

PMWINDOW
The terminal occupies a window.

FULLSCREEN
The terminal occupies the full screen.

Workstation Setup (CICS for OS/2 only)
Specify the Workstation Setup Table (WSU) entry for this terminal.
Chapter 54. Transaction resource definitions

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

Accessing BAS transaction definitions

To display information about existing transaction definitions:

**Issue the command:**

```
TRANDEF [resdef]
```

where `resdef` is the specific or generic name of a transaction definition. If you omit this parameter, the view, illustrated in Figure 99, includes information about all existing transaction definitions within the current context.

**Select:**

TRANDEF from the ADMRES menu.

```
26FEB2001 11:30:30 ---------- INFORMATION DISPLAY ------------------------
COMMAND ====> SCROLL ===> PAGE
CURR WIN ====> 1 ALT WIN ===>
W1 =TRANDEF=EYUPLX01=EYUPLX01=26FEB2001==11:30:30=CPM==4==
CMD Name Ver Created Changed Description
--- ---- --- -------------- -------------- --------------------------
ETVP 1 1/17/97 15:21 1/17/97 15:21 SSET - Workload IVP Def
ETVP 2 1/18/97 09:12 1/18/97 09:12 SSET - Workload IVP Def
ET01 1 1/09/97 15:28 1/09/97 15:28 SSET - Definition
ET02 1 1/09/97 15:51 1/09/97 15:51 SSET - Definition
```

**Figure 99. The TRANDEF view**

Working with the TRANDEF view

The topics covered by this section are:

- [Availability](#) of the TRANDEF view
- [Action commands](#) for the TRANDEF view
- [Hyperlink fields](#) on page 294 for the TRANDEF view

Availability

Transactions can be defined for all managed CICS systems.

Action commands

**Table 31** summarizes the action commands you can use with the TRANDEF view.

**Table 31. TRANDEF view action commands**

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD <code>resdef</code> version</td>
<td>ADD</td>
<td>Add a transaction definition to a resource group, as described on page 43</td>
</tr>
</tbody>
</table>
Table 31. TRANDEF view action commands (continued)

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of transaction definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a transaction definition in the data repository. The format of the resulting panels is similar to that shown in Figure 100 on page 293 through Figure 102 on page 296. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a transaction definition and add it to the data repository, as described on page 294.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a transaction in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a transaction definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a transaction definition in the data repository. The format of the resulting panels is similar to that shown in Figure 100 on page 293 through Figure 102 on page 296. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the TRANDEF view.

Defining transactions using BAS

To reate a transaction definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TRANDEF view.
2. Fill in the fields on the first transaction definition panel (see Figure 100 on page 295):
3. To add the transaction definition to the data repository, press Enter. To continue creating a transaction definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields on the second transaction definition panel (see Figure 101):

![Figure 101. Creating a transaction definition - Page 1](image)

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

5. To add the transaction definition to the data repository, press Enter. To continue creating a transaction definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

6. Fill in the fields on the third transaction definition panel (see Figure 102 on page 296):

![Figure 102. Creating a transaction definition - Page 2](image)
7. To add the transaction definition to the data repository, press Enter. To continue creating a transaction definition, issue the DOWN command. Otherwise, issue one of the other commands available from this panel.

8. Fill in the fields on the fourth transaction definition panel (see Figure 103):

Figure 102. Creating a transaction definition - Page 3

9. To add the transaction definition to the data repository, press Enter. Otherwise issue one of the other commands available from this panel.

Installing BAS transaction definitions

To install a transaction in an active system, issue the INS command.

After installation of a TRANDEF resource definition, you can enquire about the resultant object using:
The CICSPlex SM TRAN command; see CICSPlex System Manager Operations Views Reference.

- The CICS CEMT INQUIRE TRANSACTION command; see CICS Supplied Transactions.
- The EXEC CICS INQUIRE TRANSACTION command; see CICS System Programming Reference.

Transaction definition attributes

The transaction definition attribute descriptions are:

**Action**

specifies the action to be taken when a CICS region fails, or loses connectivity with its coordinator, during two-phase commit processing after the unit of work has entered the in-doubt period. The action depends on the WAIT attribute. If WAIT specifies YES, ACTION has no effect unless the WAITTIME expires before recovery from the failure.

If WAIT specifies NO, the action taken is one of the following:

- **BACKOUT**
  - All changes made to recoverable resources are backed out, and the resources are returned to the state they were in before the start of the UOW.

- **COMMIT**
  - All changes made to recoverable resources are committed, and the UOW is marked as completed.

**Alias**

allows you to specify an alias transaction name for this transaction. The name may be up to four characters in length.

**Brexit**

This parameter is a name which may be up to 8 characters in length. If you specify a value for Brexit then you must not also specify a value for Remotename or Remotesystem. You also must not specify Dynamic(YES) or Restart(YES).

CICS for CICS Transaction Server Release 2 uses Brexit in a different way to the way in which CICS in subsequent releases uses Brexit. For CICS Transaction Server Release 2, this is an optional parameter that defines the name of the bridge exit associated with this bridge transaction. The presence of a Brexit value identifies the transaction as a bridge transaction. Brexit should not be specified for a user transaction.

For CICS Transaction Server for z/OS, Version 2 Release 1 and subsequent releases, this is an optional parameter that defines the name of the default bridge exit to be associated with this transaction, if it is started in the 3270 bridge environment with a START BREXIT command, and BREXIT specifies no name. These differences mean that transaction definitions that include the Brexit keyword are slightly different depending upon whether you intend to install the transaction definition into a CICS system that runs at CICS Transaction Server Release 2 or into a CICS system at a subsequent release. The difference affects the way in which the Program keyword is specified.

If you intend to install your transaction definition into a CICS system running CICS Transaction Server Release 2, you must not specify the Program...
keyword. If you intend to install your transaction definition into a CICS system running a higher level of the CICS Transaction Server, you must specify the Program keyword.

**Cmdesc**

specifies whether security checking is to be applied on system programming commands. For programming information on the system programming commands, see the [CICS System Programming Reference](#) manual.

- **NO** No check is made. The commands are always executed.
- **YES** A call is made to the external security manager (ESM). CICS either authorizes or prevents access. If the ESM cannot identify the resource or resource type, access is prevented.

**Description**

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

**Dtimeout**

specifies whether deadlock time-out is be applied to the task. If the execution of the task gets suspended (for example, through lack of storage), a purge of the task is initiated if the task stays suspended for longer than the Dtimeout value.

**Confdata**

specifies whether CICS is to suppress user data from CICS trace entries when the CONFDATA system initialization parameter specifies HIDETC.

**Dump**

specifies whether a call is to be made to the dump domain to produce a transaction dump if the transaction terminates abnormally.

- **YES** CICS calls the dump domain to produce a transaction dump.
- **NO** No call is made to the dump domain, suppressing any potential transaction dump.

**Dynamic**

specifies whether the transaction can be dynamically routed to a remote region, using the CICS dynamic transaction routing facility.

- **NO** Creates a local or remote definition according to the REMOTESYSTEM attribute.
- **YES** Allows the dynamic transaction routing program to determine the local or remote status dynamically at invocation time. For programming information about the dynamic transaction routing program, see the [CICS Customization Guide](#).

**Extsec**

For systems running CICS/MVS 2.1.2, specify YES or NO to indicate whether an external security manager (ESM) is to be used for transaction or resource security checking. If the Extsec value does not apply to this definition, specify N/A.

**Indoubt**

For systems running a version of CICS prior to CICS TS for OS/390, specify the action required if the transaction is using intercommunication and abends at a critical time during syncpoint or abend processing:

- **BACKOUT** The effects of the transaction are backed out.
**COMMIT**
The effects of the transaction are committed.

**WAIT** Changes to recoverable temporary storage are locked until the session is recovered. The resources are then committed or backed out in step with the remote system.

**Isolate** specifies whether CICS is to isolate the transaction’s user-key task-lifetime storage to provide transaction-to-transaction protection. (See the TASKDATAKEY attribute for a description of user-key storage.) Isolation means that the user-key task-lifetime storage is protected from both reading and writing by the user-key programs of other transactions—that is, from programs defined with EXECKEY(USER).

**Note:** The ISOLATE attribute does not provide any protection against application programs that execute in CICS key—that is, from programs defined with EXECKEY(CICS).

**YES** The transaction’s user-key task-lifetime storage is isolated from the user-key programs of all other transactions—that is, from programs defined with EXECKEY(USER), but not from programs defined with EXECKEY(CICS).

Also, the user-key task-lifetime storage of all other transactions is protected from the user-key programs of transactions defined with ISOLATE(YES).

**NO** If you specify ISOLATE(NO), the transaction’s task-lifetime storage is isolated from the user-key programs of those transactions defined with ISOLATE(YES). The transaction’s storage is not, however, isolated from user-key programs of other transactions that also specify ISOLATE(NO) because, with this option, the transactions are all allocated to the common subspace.

Note also that the user-key task-lifetime storage of all transactions defined with ISOLATE(YES) is protected from the user-key programs of transactions defined with ISOLATE(NO).

Specify ISOLATE(NO) for those transactions that share any part of their user-key task-lifetime storage.

**Localq** specifies whether queuing on the local system is to be performed.

**NO** No local queuing is to be performed.

**YES** Local queuing can be attempted for an EXEC START NOCHECK request when the system is not available and the system name is valid.

**N/A** The Localq attribute does not apply to this definition.

**Name** Specify a 1- to 4-character ID for the transaction definition.

**Partitionset** specifies the name of the partition set that is to be the default application partition set. The name can be up to eight characters in length.

**OTSTimout** specifies, in hours, minutes, and seconds, the default period an Object Transaction Service (OTS) transaction, created in an enterprise beans environment and executing as a task under this CICS transaction, is allowed to
execute without the initiator of the OTS transaction taking a syncpoint (or rolling back the OTS transaction). If the specified period elapses, CICS purges the task.

The initiator of the OTS transaction may be:
- The client of the enterprise bean.
- The EJB container. (The container issues a syncpoint at the end of the bean method.)
- A session bean that manages its own OTS transactions.

Figure 104 shows an OTS transaction. If the period specified by OTSTIMEOUT expires before the initiator of the OTS transaction commits or rolls back the transaction, CICS purges the task.

Methods of session beans that manage their own OTS transactions can override the default timeout value by using the `setTransactionTimeout` method of the `javax.Transaction.UserTransaction` interface.

**NO**

OTS transactions will not time out. This is the default.

1–240000

The period of time (in HHMMSS format) before the task is purged. The maximum period is 24 hours (240000).

**PrimedSize**

For systems running CICS/MVS 2.1.2, identify the primed storage allocation size in bytes:

0 CICS will handle storage for the control blocks.

value A storage allocation, in the range 1 through 65520.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Priority**

specifies the transaction priority. This 1-to 3-digit decimal value from 0 to 255 is used in establishing the overall transaction processing priority. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.
Profile
is the name of the PROFILE definition that specifies the processing options used in conjunction with the terminal that initiated the transaction. The default is DFHCICST.

The name may be up to 8 characters in length.

Program
specifies the name of the program to which CICS gives control to process this transaction. The name can be up to eight characters in length.

If this transaction definition is for use on a remote program link request, the program name you specify in this attribute must be the name of the CICS mirror program, DFHMIRS.

Remotename
specifies the name of this transaction as it is known in a remote system, if it is to be executed in a remote system or region using intersystem communication. The remote system can be another CICS region or an IMS system.
REMOTENAME can be 1 through 4 characters in length if the REMOTESYSTEM attribute specifies another CICS region, or 1 through 8 characters in length if REMOTESYSTEM specifies an IMS system.

If you specify a remote name, CICSPlex SM uses that name when assigning the transaction to a related system. If you specify a remote system but not a remote name, the local name (that is, the name of this transaction definition) is used in both the target and related systems.

Note: If you specify a value for Brexit than you must not also specify a value for Remotename.

Remote Sysid
(Optional.) specify the name of the connection that links the target system to the related system where the transaction resides. If this parameter is not supplied, the connection name is derived directly from the CICS system id of the related system.

The name may be up to 4 characters in length.

CICSPlex SM uses this system ID only if the transaction is part of a resource group that is directly associated with a resource description (via RESINDSC). If the transaction is being assigned by a resource assignmnet (RASGNDEF), CICSPlex SM uses the actual CICS system ID of the related system.

Note: One, and only one, of the fields Program, Remote Sysid, and Brexit must be specified.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

Ressec
specifies whether resource security checking is to be used for resources accessed by this transaction.

NO All resources are available to any user who has the authority to use this transaction.

YES An external security manager is used.
Restart
specifies whether the transaction restart facility is to be used to restart those tasks that terminate abnormally and are subsequently backed out by the dynamic transaction backout facility.

Routable
specifies whether, if the transaction is the subject of an eligible EXEC CICS START command, it will be routed using the enhanced routing method.

**NO**
If the transaction is the subject of a START command, it will be routed using the “traditional” method.
The transaction should not be dynamically routed.

**YES**
If the transaction is the subject of an eligible START command, it will be routed using the enhanced method.
The transaction should be dynamically routed.

If you specify ROUTABLE(YES), you must not also specify LOCALQ(YES).

For details of the enhanced and “traditional” methods of routing transactions invoked by EXEC CICS START commands, see the CICS Intercommunication Guide.

The RSL attribute is not valid in CICS Transaction Server for z/OS. See CICS Resource Definition Guide for information.

Runaway
The amount of time, in milliseconds, for which any task running under this transaction definition can have control of the processor before it is assumed to be in a runaway condition (logical loop). When this interval expires, CICS can abnormally terminate the task.

**SYSTEM**
CICS is to use the ICVR system initialization parameter value as the runaway time limit for this transaction.

**0**
There is no limit and no runaway task detection is required for the transaction.

**0–2700000**
The runaway time limit in the range 0 through 2700000.

If this field is blank CICSPlex SM uses the default value for your CICS environment if there is one.

Shutdown
applies to transactions associated with a terminal, and indicates whether the transaction can be run during CICS shutdown. This supplements the XLT option on EXEC CICS PERFORM SHUTDOWN. For a transaction to be attached during shutdown, it must either be defined as SHUTDOWN(ENABLED) or be named in the XLT specified in the EXEC CICS SHUTDOWN command.

**DISABLED**
The transaction is disabled from running during CICS shutdown.

**ENABLED**
The transaction is enabled to run during CICS shutdown.

Spurge
specifies whether the transaction is initially “system purgeable” or not.
SPURGE=NO prevents a transaction being purged by the deadlock time-out (DTIMOUT) facility, an EXEC CICS ... PURGE command, TWAOCT (Cancel Task) being set in the node error program (NEP), or a CEMT SET ... PURGE command.

SPURGE=YES allows such purges to go ahead as far as the user is concerned. CICS may, however, prevent the purge if it is not safe to allow a purge at the point the transaction has reached.

Note that SPURGE=NO does not prevent a transaction being purged by the read time-out (RTIMOUT) facility, an EXEC CICS SET ... FORCEPURGE command, or a CEMT SET TRANSACTION(tranid) FORCEPURGE command. SPURGE determines only the initial value, which can be changed by the transaction while it is running.

- **NO** The transaction is not initially system purgeable.
- **YES** The transaction is initially system purgeable.

**Status**

specifies the transaction status.

- **ENABLED** Allows the transaction to be executed normally.
- **DISABLED** Prevents the transaction being executed.

**Storageclear**

specifies whether task-lifetime storage for this transaction is to be cleared on release. This can be used to prevent other tasks accidentally viewing any confidential or sensitive data that was being stored by this transaction in task lifetime storage.

**Taskdatakey**

specifies the storage key of the storage CICS allocates at task initialization for the duration of the task (task-lifetime storage), and which is accessible by the application. These storage areas are the EXEC interface block (EIB) and the transaction work area (TWA).

TASKDATAKEY also specifies the key of the storage that CICS obtains on behalf of all programs that run under the transaction. The program-related storage that CICS allocates in the specified key includes:

- The copies of working storage that CICS obtains for each execution of an application program.
- The storage CICS obtains for the program in response to implicit and explicit GETMAIN requests. For example, the program can request storage by a GETMAIN command, or as a result of the SET option on other CICS commands.

You must specify TASKDATAKEY(USER) if any of the programs in the transaction is defined with EXECKEY(USER). If you specify TASKDATAKEY(CICS) for a transaction, an attempt to run any program in user key under this transaction leads to a task abend, with abend code AEZD.

- **USER** CICS obtains user-key storage for this transaction. Application programs executing in any key can both read and modify these storage areas.

**Note:** User-key programs of transactions defined with ISOLATE(YES) have access only to the user-key task-lifetime storage of their own tasks.
User-key programs of transactions defined with ISOLATE(NO) also have access to the user-key task-lifetime storage of other tasks defined with ISOLATE(NO).

See the description of the EXECKEY attribute on the PROGRAM definition for more information about task storage protection.

CICS CICS obtains CICS-key storage for this transaction. Application programs executing in CICS key can both read and modify these storage areas. Application programs executing in user key can only read these storage areas.

Taskdataloc specifies whether task life-time storage acquired by CICS for the duration of the transaction can be located above the 16MB line in virtual storage. These areas, which relate to specific CICS tasks, include the EXEC interface block (EIB) and the transaction work area (TWA).

You must specify TASKDATALOC(BELOW) if any of the programs that make up the transaction runs in 24-bit addressing mode (this also applies to task-related user exits running on behalf of the transaction).

For transactions that do not satisfy any of these conditions, you can specify ANY to obtain the associated virtual storage constraint relief.

CICS polices the use of TASKDATALOC(ANY). In particular:

- An attempt to invoke an AMODE 24 program running under a transaction defined with TASKDATALOC(ANY) results in an AEZC abend.
- An attempt to issue an EXEC CICS command or call a task related user exit while running AMODE(24) with TASKDATALOC(ANY) specified results in an AEZA abend.
- An AMODE 31 program running as a transaction with TASKDATALOC(ANY), which attempts to invoke a task-related user exit that is forced to run AMODE(24), results in an AEZB abend.
- If a task-related user exit that is forced to run in AMODE 24 is enabled for task start, CICS forces TASKDATALOC(BELOW) for all transactions for the remainder of the CICS run.

BELOW Storage areas that CICS acquires for the transaction must be located below the 16MB line.

ANY Storage areas that CICS acquires for the transaction can be located above the 16MB line in virtual storage.

Taskreq specifies whether a transaction is to be initiated by pressing a PF key, by using a light pen, or by using a card. Possible values are:

- **PA1**, **PA2**, or **PA3** for PA keys.
- **PF1** through **PF24** for PF keys.
- **OPID** for the operator identification card reader.
- **LPA** for a light-pen-detectable field on a 3270 device.
- **MSRE** for the 10/63 character magnetic slot reader.

Here are some notes on the use of PF and PA keys:

- If a PA or PF key is specified in the PRINT system initialization parameter, you cannot use the same PF key as the TASKREQ to initiate a transaction.
PA or PF keys specified in the SKRxxxx system initialization parameter as page retrieval keys are interpreted as such during a page retrieval session. You can use the same keys to initiate transactions at other times. The keys should be defined with the following values:

```
TASKREQ=KEY-ID
PROGRAM=DFHTPR
TWASIZE=1024
TPURGE=NO
SPURGE=NO
```

- If you define a transaction with PROGRAM(DFHTPR), and define a TASKREQ key, the key initiates the transaction and opens the page retrieval session at the same time.

**Note:** For transactions that had a TASKREQ but no TRANSID before migration to RDO, there may be an incompatibility in the use of EIBTRNID by application programs. (See the [CICS Application Programming Guide](#) for information.)

**Tclass**
As a result of the introduction of TRANCLASS, the TCLASS attribute is obsolete in CICS Transaction Server for z/OS. If you already use TCLASS, you can still access it by using compatibility mode (see [CICS Resource Definition Guide](#) for information). See [CICS Resource Definition Guide](#) for a description of TCLASS.

**TPname**
specifies the name of the transaction that may be used by an APPC partner if the 4-character length limitation of the TRANSACTION attribute is too restrictive. This name can be up to 64 characters in length.

**Tpurge**
specifies (for non-VTAM terminals only) whether the transaction can be purged because of a terminal error.

- **NO**  The task cannot be purged when a terminal error occurs.
- **YES**  The task can be purged when a terminal error occurs.

**Trace**
specifies whether the activity of this transaction is to be traced.

- **YES**  Trace the activity for this transaction.
- **NO**   Do not trace the activity for this transaction.

**Tranclass**
specifies the name of the transaction class to which the transaction belongs. Transactions belonging to a transaction class are subject to scheduling constraints before they are allowed to execute. The reserved TRANCLASS name DFHTCL00 is used to indicate that the transaction does not belong to any transaction class.

The name may be up to 8 characters in length.

**Transec**
The TRANSEC attribute is obsolete, but is supported to provide compatibility with earlier releases of CICS. See [CICS Resource Definition Guide](#) for more information.
Trprof
specifies for remote transactions the name of the PROFILE for the session that carries intersystem flows during ISC transaction routing. The name can be up to eight characters in length.
The default is DFHCICSS>

TWAsize
specifies the size (in bytes) of the transaction work area to be acquired for this transaction. Specify a 1-to 5-digit decimal value in the range 0 through 32767.

Notes:
1. Your storage may be corrupted if your TWASIZE is too small.
2. Do not change the TWASIZE of the CICS-supplied transactions.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the transaction. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

Wait
specifies whether an in-doubt unit of work (UOW) is to wait, pending recovery from a failure that occurs after the UOW has entered the in-doubt state.

YES The UOW is to wait, pending recovery from the failure, to resolve its in-doubt state and determine whether recoverable resources are to be backed out or committed. In other words, the UOW is to be shunted.

NO The UOW is not to wait. CICS immediately takes whatever action is specified on the ACTION attribute.

Waittime
specifies how long a transaction is to wait before taking an arbitrary decision about an in-doubt unit of work, based on what is specified in the ACTION attribute.

00,00,00
The transaction waits indefinitely.

dd, hh, mm
The time, in days, hours, and minutes, for which the transaction is to wait. The maximum value is 93,23,59.

WAITTIME takes effect only if WAIT(YES) is specified.

If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

XTPname
This attribute may be used as an alternative to TPNAME. Enter a hexadecimal string up to 128 characters in length, representing the name of the transaction that may be used by an APPC partner. All hexadecimal combinations are acceptable except X'40'.

XTRANID(value)
You can use this optional attribute to specify another name to be used instead of the TRANSACTION name for initiating transactions. The name may be up to eight hexadecimal digits in length. Because XTRANID is specified in
hexadecimal code, you can use a name that contains unprintable characters, or characters not allowed for TRANSACTION names.

(See also TASKREQ, another transaction alias that can be specified.)

**value** A 4-byte transaction identifier in hexadecimal notation (the identifier therefore uses up to eight hexadecimal digits). If you specify fewer than eight hexadecimal digits, the identifier is padded on the right with blanks.

Certain values are reserved for use by CICS, and so there are restrictions on the values you can specify:

- The first byte must not be X'C3'.
- The first byte must not be less than or equal to X'40'.
- The value must not be X'00000000'.
- The last three bytes must not be X'FFFFFF'.

Avoid using values in the range X'00' through X'3F' in the second, third and fourth bytes if the transaction is to be attached by unsolicited data received from a terminal defined as a 3270 device, because CICS will interpret these values as control characters, and not as part of the transaction identifier. For example, if you issue EXEC CICS RETURN or EXEC CICS START and specify TRANSID(X'41303238'), then the correct transaction will be attached. However, if you issue EXEC CICS RETURN without specifying a TRANSID, and the 3270 device transmits data that begins with X'41303238', CICS will attempt to attach a transaction as if X'41404040' had been transmitted.

Additional attributes required for systems running CICS/MVS 2.1.2 or CICS/ESA 3.3 only are:

**Tclass**

For systems running CICS/MVS 2.1.2 or CICS/ESA 3.3, identify the class associated with the task:

- **NO** No class is assigned to the task.

**value** A class value, in the range 1 through 10.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**PrimedSize**

For systems running CICS/MVS 2.1.2, identify the primed storage allocation size in bytes:

- **0** CICS will handle storage for the control blocks.

**value** A storage allocation, in the range 1 through 65520.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Extsec**

For systems running CICS/MVS 2.1.2, specify YES or NO to indicate whether an external security manager (ESM) is to be used for transaction or resource security checking. If the Extsec value does not apply to this definition, specify N/A.
Transec
For systems running CICS/MVS 2.1.2, specify a transaction security value in the range 1 through 64. A value of 1 means the transaction is not secured.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Rsl
For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the transaction:

0 Transactions with RSL checking specified are not allowed to access the transaction.

value A resource security value, in the range 1 through 24.

PUBLIC Any transaction is allowed to access the transaction.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Routable
Specify whether or not the transaction, when invoked using an EXEC CICS START TERMID TRANSID command, is eligible for shipping to the TOR (the routing region) for dynamic routing.

YES The transaction is eligible for shipping to the TOR for dynamic routing.

NO The transaction is not eligible for shipping to the TOR for dynamic routing.
Chapter 55. Transaction class definitions

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

Accessing BAS transaction class definitions

To display information about existing transaction class definitions:

**Issue the command:**

```
TRNCLDEF [resdef]
```

where `resdef` is the specific or generic name of a transaction class definition. If you omit this parameter, the view, illustrated in Figure 105, includes information about all existing transaction class definitions within the current context.

**Select:**

TRNCLDEF from the ADMRES menu.

![Figure 105. The TRNCLDEF view](image)

Working with the TRNCLDEF view

The topics covered by this section are:

- "Availability" of the TRNCLDEF view
- "Action commands" for the TRNCLDEF view
- "Hyperlink fields" on page 310 for the TRNCLDEF view

Availability

Transaction classes can be defined for CICS/ESA 4.1 and later systems.

Action commands

**Table 32** summarizes the action commands you can use with the TRNCLDEF view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a transaction class definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>Primary command</td>
<td>Line command</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of transaction class definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a transaction class definition in the data repository. The format of the resulting panel is similar to that shown in Figure 106 on page 311. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a transaction class definition and add it to the data repository, as described on page 310.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a transaction class in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a transaction class definition from the data repository, as described on page 37.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a transaction class definition in the data repository. The format of the resulting panel is similar to that shown in Figure 106. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

**Hyperlink fields**

There are no hyperlink fields in the TRNCLDEF view.

**Defining transaction classes using BAS**

To create a transaction class definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TRNCLDEF view.

2. Fill in the fields on the transaction class definition panel (see Figure 106 on page 311):
3. To add the transaction class definition to the data repository, press Enter.

## Installing BAS transaction class definitions

To install a transaction class in an active system, issue the INS command.

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

- The CICSPlex SM TRNCLS command; see [CICSPlex System Manager Operations Views Reference](#).
- The CICS CEMT INQUIRE TCLASS command; see [CICS Supplied Transactions](#).
- The EXEC CICS INQUIRE TRANCLASS command; see [CICS System Programming Reference](#).

## Transaction class definition attributes

The transaction class definition attribute descriptions are:

### Description

You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

### Maxactive

specifies the maximum number of transactions in this transaction class that are allowed to be active. You must specify a MAXACTIVE value when you define a transaction class, in the range 0 through 999.

### Name

Specify a 1- to 8-character name for the transaction class definition.

### Purgethresh

This is an optional purge threshold for the transaction class; it defines a threshold number at which transactions queuing for membership of the transaction class are purged. Specify it if you want to limit the number of transactions queuing in this transaction class. It can have the following values:

- **NO** The size of the queue is unlimited (other than by the storage available to attach tasks).
- **number** The purge threshold number in the range 1—1 000 000.
TRNCLDEF

If you specify this as 1, no transactions are allowed to queue. If you specify it as any other number \((n)\), the size of the queue is restricted to \(n-1\). All new transactions attached after the limit of \(n-1\) is reached are purged.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the transaction class. CICSPlex SM makes no use of this user data.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.
Chapter 56. Temporary storage model definitions

Temporary storage model definitions describe the attributes of temporary storage models defined in the CPSM data repository. When installed in a target CICS system, these temporary storage model attributes govern the characteristics of CICS temporary storage queues, whose names generically match that of the Prefix field.

Accessing BAS temporary storage model definitions

To display information about existing temporary storage model definitions:

**Issue the command:**

```
TSMDEF [resdef]
```

where `resdef` is the specific or generic name of a temporary storage model definition. If you omit this parameter, the view, illustrated in Figure 107, includes information about all existing temporary storage model definitions within the current context.

**Select:**

TSMDEF from the ADMRES menu.

<table>
<thead>
<tr>
<th>26FEB2001 11:30:30</th>
<th>INFORMATION DISPLAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND ====&gt;</td>
<td>SCROLL ===&gt; PAGE</td>
</tr>
<tr>
<td>CURR WIN ====&gt; 1</td>
<td>ALT WIN ===&gt;</td>
</tr>
<tr>
<td>W1 =TSMDEF=EYUTM01=EYUTM01=26FEB2001=11:30:30=CPSM=</td>
<td></td>
</tr>
<tr>
<td>CMD Name</td>
<td>Ver</td>
</tr>
<tr>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>EYUTM01</td>
<td>1</td>
</tr>
<tr>
<td>EYUTM01</td>
<td>2</td>
</tr>
<tr>
<td>EYUTM02</td>
<td>1</td>
</tr>
</tbody>
</table>

*Figure 107. The TSMDEF view*

Working with the TSMDEF view

The topics covered by this section are:

- ["Availability"] of the TSMDEF view
- ["Action commands"] for the TSMDEF view
- ["Hyperlink fields"] on page 314 for the TSMDEF view

Availability

Temporary storage models can be defined for CICS Transaction Server for z/OS, Version 2 Release 1.

Action commands

[Table 33 on page 314] summarizes the action commands you can use with the TSMDEF view.
Table 33. TSMDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a temporary storage model definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of temporary storage model definitions, as described on Figure 6 on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a temporary storage model definition in the data repository. The format of the resulting panel is similar to that shown in Figure 108 on page 315. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a temporary storage model definition and add it to the data repository, as described on page 314.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running CICS Transaction Server for OS/390 Release 3, install a temporary storage model in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a temporary storage model definition from the data repository, as described on page 61.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a temporary storage model definition in the data repository. The format of the resulting panels is similar to that shown in Figure 108. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

There are no hyperlink fields in the TSMDEF view.

Defining temporary storage models using BAS

To create a temporary storage model definition:

1. Issue the create primary (CREate) or line (CRE) action command from the TSMDEF view.
2. Fill in the fields on the temporary storage model definition panel (see Figure 108 on page 315):
3. To add the temporary storage model definition to the data repository, press Enter. Otherwise, enter one of the other commands available from this panel.

Installing BAS temporary storage model definitions

A temporary storage model definition specifies the attributes of temporary storage queues with names that match the prefix in the model. When a TSMDEF is installed, a TSMODEL is created on the local system. When an EXEC CICS WRITEQ TS command specifies a prefix that matches a TSMODEL prefix, a temporary storage queue is created, using the attributes of the TSMODEL. If the installed TSMODEL specifies a Remote system name, the queue is created on that remote system. However, the TSMDEF and the TSMODEL always exist locally. This rule applies whether the TSMDEF is installed using the INS command, or by resource assignment or resource group. If either a RASGNDEF or a RESGROUP is used to install the temporary storage model definition, the Usage parameter must always specify LOCAL (see "Installing resource descriptions" on page 66 and "Installing resource groups" on page 59).

To install a temporary storage model into an active system, issue the INS command.

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

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

Temporary storage model definition attributes

The temporary storage model definition attribute descriptions are:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>TSMODL01</td>
</tr>
<tr>
<td>Description</td>
<td>Model for</td>
</tr>
<tr>
<td>RESGROUP</td>
<td></td>
</tr>
<tr>
<td>User Data</td>
<td></td>
</tr>
<tr>
<td>Prefix</td>
<td>USERAPP1</td>
</tr>
<tr>
<td>XPrefix</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>AUXILIARY</td>
</tr>
<tr>
<td>Recovery</td>
<td>NO</td>
</tr>
<tr>
<td>Security</td>
<td>NO</td>
</tr>
<tr>
<td>Pool name</td>
<td></td>
</tr>
<tr>
<td>Remote system</td>
<td></td>
</tr>
<tr>
<td>Remote prefix</td>
<td></td>
</tr>
<tr>
<td>XRemote prefix</td>
<td></td>
</tr>
</tbody>
</table>

Press ENTER to create TSMDEF. Type END or CANCEL to cancel without creating.

Figure 108. Creating a temporary storage model definition
TSMDEF

Description
You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

Location
specifies whether the queue is to be held in auxiliary or main storage:

AUXILIARY
Queues matching this model are to be held on auxiliary storage. Whatever is specified on the API request is disregarded.

MAIN
Queues matching this model are to be held in main storage. Whatever is specified on the API request is disregarded.

Notes:
1. TSMODEL definitions created using the Migrate command have their location attribute set to the default value AUXILIARY.
2. LOCATION is ignored for remote TSMODELs and shared TS pool models. Using LOCATION on a remote entry allows the same definition to be installed in both a local and remote region. See the CICS Resource Definition Guide.

Name
Specify a 1- to 8-character id for the temporary storage model definition.

Pool name
specifies the 8-character name of the shared TS pool definition that you want to use with this TSMODEL definition. The name can be up to eight characters in length. Embedded blanks are not acceptable and a name consisting entirely of blanks is treated as though no Poolname had been supplied.

Prefix
specifies the character string that is to be used as the prefix for this model. The prefix may be up to 16 characters in length.

Note: Note that you can use either upper case, or lower case, or a mixture of the two for the prefix name; lower case is not folded to upper case. For example, queue prefixes EYUPREFIX, EYuprefix, and eyuprefix identify three different queue models. If you are using CECI, or any other application that does not support mixed case prefix names, you should check that your data is being written to the correct temporary storage queue.

Recovery
specifies whether or not queues matching this model are to be recoverable.

NO
queues matching this model are to be non-recoverable.

YES
queues matching this model are to be recoverable.

Remote prefix
specifies the character string that is to be used as the prefix on the remote system. The prefix may be up to 16 characters in length.

Remote system
specifies the name of the connection that links the local system to the remote system where the temporary storage queue resides.

REMOTESYSTEM and POOLNAME are mutually exclusive. If REMOTESYSTEM is specified, POOLNAME is ignored.
Note that a remote system name applies only to the created temporary storage queue. A temporary storage model definition can be installed only on the local system. For more information, see "Installing BAS temporary storage model definitions" on page 315.

**RESGROUP**
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

**Security**
specifies whether security checking is to be performed for queues matching this model.

- **NO** security checking is not to be performed for queues matching this model.
- **YES** security checking is to be performed for queues matching this model.

**User data**
(Optional.) Three 8-character fields provided for any site-specific data related to the temporary storage model. CICSPlex SM makes no use of this user data.

**Version**
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

**XPrefix**
may be used as an alternative to PREFIX. Enter a hexadecimal string, up to 32-characters in length, that is to be used as the prefix for this model. Any characters, printable and non-printable, may be specified. Generic prefix names are allowed, using a single wildcard character, hex 4E.

**XRemote prefix**
may be used as an alternative to REMOTEPREFIX. Enter a hexadecimal string, up to 32-characters in length, that is to be used as the prefix on the remote system. Any characters, printable and non-printable, may be specified.
TSMDEF
Chapter 57. Typeterm resource definitions

Typeterm definitions are partial terminal definitions that describe a set of common attributes for a group of terminals.

Note: For detailed information on typeterm definitions, including valid device types and the resulting dependent default values, refer to the CICS/ESA Resource Definition Guide (or the Resource Definition (Online) book) for the version of CICS you are running.

Accessing BAS typeterm definitions

To display information about existing typeterm definitions:

Issue the command:

```
TYPTMDEF [resdef]
```

where `resdef` is the specific or generic name of a typeterm definition. If you omit this parameter, the view, illustrated in Figure 109, includes information about all existing typeterm definitions within the current context.

Select:

TYPTMDEF from the ADMRES menu.

![TYPTMDEF view](image)

Figure 109. The TYPTMDEF view

Working with the TYPTMDEF view

The topics covered by this section are:

- **Availability** of the TYPTMDEF view
- **Action commands** for the TYPTMDEF view
- "Hyperlink fields" on page 320 for the TYPTMDEF view

Availability

Typeterms can be defined for all managed CICS systems.

Action commands

Table 34 on page 320 summarizes the action commands you can use with the TYPTMDEF view.
### TYPTMDEF

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD resdef version</td>
<td>ADD</td>
<td>Add a typeterm definition to a resource group, as described on page 45.</td>
</tr>
<tr>
<td>ALTER</td>
<td>n/a</td>
<td>Apply global changes to a set of typeterm definitions, as described on page 27.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a typeterm definition in the data repository. The format of the resulting panels is similar to that shown in Figure 110 on page 321 through Figure 114 on page 323. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a typeterm definition and add it to the data repository, as described on page 320.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a typeterm in an active system, as described on page 75.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified definition as a starting point.</td>
</tr>
<tr>
<td>REMove resdef version</td>
<td>REM</td>
<td>Remove a typeterm definition from the data repository, as described on page 31.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a typeterm definition in the data repository. The format of the resulting panels is similar to that shown in Figure 110 on page 321 through Figure 114 on page 323. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the TYPTMDEF view.

### Defining typeterms using BAS

To create a typeterm definition:

1. Enter the create primary (CREate) or line (CRE) action command from the TYPTMDEF view.
2. Fill in the fields on the first panel (see Figure 110 on page 321):
3. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields in the second panel (see Figure 111):

```
COMMAND ===>
Name ===> EYUTYP01 Version ===> 1
Description ===> 
RESGROUP ===> 
User Data ===> 

Device ===> Device type
Termmodel ===> 1 Model number (1, 2, blank)
SessionType ===> VTAM SNA session type
LDClist ===> Logical device code list name
Shippable ===> NO Shippable to remote system (NO, YES)
Pagesize ===> 0 Rows, Cols (0-999, 0-999, blank)
Altpage ===> 0 Rows, cols (0-999, 0-999, blank)
Altsuffix ===> Numeric suffix for map sets
PMMparm ===> NO User-supplied data in PMI (NO, YES)
Oboperid ===> NO Outboard operid used by CICS (NO, YES)
Autopage ===> NO Should autopage be used (NO, YES)
DefScreen ===> 3270 devsize, Rows, Cols (0-999,0-999,blank)
Altscreen ===> 3270 devsize, Rows, Cols (0-999,0-999,blank)

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

Figure 110. Creating a typeterm definition - Page 1

3. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

4. Fill in the fields in the second panel (see Figure 111):

```
COMMAND ===>
Name EYUTYP01 Version 1
Query ===> NO User query structured field (NO,COLD,ALL)
Sendsize ===> 0 Maximum send size (0-30720, blank)
Receivesize ===> 256 Maximum receive size (0-30720, blank)
Bracket ===> YES Bracket protocol enforced (YES, NO)
Logmode ===> Logmode name
Autoconnect ===> NO Autoconnect for terminal (NO, YES)
Ati ===> NO Transactions started via ATI (NO, YES)
Tti ===> YES Transactions started via user (YES, NO)
Createsss ===> NO Sessions to be created (NO, YES)
Relreq ===> NO CICS to release LU (NO, YES)
Discreq ===> YES Disconnect requests honored (YES, NO)
Nepclass ===> 0 Ncp transaction class (0-255, blank)
Signoff ===> YES Automatic timeout (YES, NO, LOGOFF)
Xfsignoff ===> NOFORCE Signon characteristics (NOFORCE, FORCE)
Routedmsg ===> ALL Messages routed to terminal (ALL, NONE, SPECIFIC)
Logonmsg ===> NO Logon message initiated (NO, YES)

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

Figure 111. Creating a typeterm definition - Page 2

5. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

6. Fill in the fields on the third panel (see Figure 112 on page 322):
7. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

8. Fill in the fields on the fourth panel (see Figure 113):

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>EYUTYP01</th>
<th>Version</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Buildchain</td>
<td>Userarea</td>
<td>Ioareaen</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Perform chain assembly (NO, YES)</td>
<td>User area size (0-255, blank)</td>
<td>I/O area size, Alt size (0-32767, blank)</td>
</tr>
</tbody>
</table>

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

---

Figure 112. Creating a typeterm definition - Page 3

9. To add the typeterm definition to the data repository, press Enter. To continue creating a typeterm definition, issue the DOWN command. Otherwise, issue one of the commands available from this panel.

10. Fill in the fields on the fifth panel (see Figure 114 on page 323):

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>EYUTYP01</th>
<th>Version</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Lightpen</td>
<td>Msrcontrol</td>
<td>Obformat</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Selector pen feature supported (NO, YES)</td>
<td>Magnetic slot reader available (NO, YES)</td>
<td>Outboard formatting to be used (NO, YES)</td>
</tr>
</tbody>
</table>

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

---

Figure 113. Creating a typeterm definition - Page 4
To add the typeterm definition to the data repository, press Enter. Otherwise, issue one of the other commands available from this panel.

Installing BAS typeterm definitions

To install a typeterm in an active system, issue the INS command.

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

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

Typeterm definition attributes

The typeterm definition attribute descriptions are:

**Altpage**

specifies the page size to be used by BMS for this terminal entry when the alternate screen size is specified in a profile definition (PROFDEF). The default is the PAGESIZE. The values for both rows and columns must be in the range 0 through 999. The product of rows and columns must not exceed 32767. If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

**AltScreen**

specifies the 3270 screen size to be used for a transaction that has an alternate screen size specified in its profile definition. The row and column values must each be in the range 0 through 999. If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

**Altsuffix**

A 1-character numeric suffix that BMS is to append to map set names.

**blank** Leave this attribute blank if you do not want a suffixed map set.

**number** BMS appends this suffix to map set names if the screen size being
used is the same value as the alternate screen size; that is, if the transaction has an alternate screen size specified in the PROFILE definition, or if the default and alternate screen size are the same.

**Aplkybd**
specifies whether the 3270 device has the APL keyboard feature:

- **YES** The 3270 device has the APL keyboard feature.
- **NO** The 3270 device does not have the APL keyboard feature.

**Apltext**
specifies whether the 3270 device has the APL text feature:

- **YES** The 3270 device has the APL text feature.
- **NO** The 3270 device does not have the APL text feature.

**Ascii**
specifies whether the terminal has an ASCII feature.

- **NO** This terminal does not have an ASCII feature.
- **7** Specify this to communicate with ASCII-7 terminals.
- **8** Specify this to communicate with ASCII-8 terminals.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

**Ati**
specifies whether transactions can start at the terminal by automatic transaction initiation:

- **YES** Transactions can start at the terminal by automatic transaction initiation.
- **NO** Transactions cannot start at the terminal by automatic transaction initiation.

**Audiblealarm**
specifies whether the audible alarm feature is installed for a 3270 display or for a 3270 printer attached to a 3651 controller:

- **YES** The audible alarm feature is installed.
- **NO** The audible alarm feature is not installed.

**Autoconnect**
specifies whether autoconnect processing is to occur for the terminal.

- **NO** CICS does not attempt to bind sessions when the connection is established.
- **YES** CICS attempts to bind as a contention winner session, when the connection is established.

**Autopage**
specifies whether BMS autopaging is to be used. Specify **YES** for printers and **NO** for display devices.

**Backtrans**
specifies whether the device has the background transparency feature:

- **NO** The device does not have the background transparency feature.
- **YES** The device does have the background transparency feature.
Bracket
specifies whether bracket protocol is to be enforced for this logical unit.

**YES**  Bracket protocol is to be used.

**NO**  Bracket protocol is not to be used.

Buildchain
specifies whether CICS is to perform chain assembly prior to passing the input data to the application program.

**NO**  Any terminal input/output area (TIOA) received by an application program from this logical unit contains one request unit (RU).

**YES**  Any TIOA received by an application program from this logical unit contains a complete chain.

Cgcsgid
Specify a coded graphic character set global identifier (CGC SID), in the range 0 through 655335.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Color
specifies whether the 3270 device or the SCS printer has the extended color feature, which allows colors to be selected for each field or character:

**NO**  The device does not have the extended color feature.

**YES**  The device has the extended color feature.

Copy
specifies whether the copy feature for a 3270 display or printer is included in the 3270 control unit:

**NO**  The copy feature is included.

**YES**  The copy feature is not included.

Createsess
specifies whether sessions are to be created.

**NO**  Specify this to prevent internally generated session requests from actually creating a session.

**YES**  Specify this for a status that allows internally generated session requests to create a session.

DefScreen
specifies the 3270 screen size or 3270 printer page size to be used on this device when attached to a transaction for which the default screen size has been specified in the profile definition. The row and column values must each be in the range 0 through 999. If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

Description
You can provide a description of the resource you are defining in this field. The description text can be up to 30 characters in length.

Device
specifies the device type which this TYPETERM defines.

Discreq
specifies whether disconnect requests are to be honored.
**TYPTMDEF**

**YES** CICS is to honor a disconnect request for a VTAM device.

**NO** CICS is not to honor a disconnect request for a VTAM device.

**Dualcasekybd**

specifies whether a 3270 display has a typewriter keyboard or an operator console keyboard. Both uppercase and lowercase data can be transmitted with either of these keyboards.

**NO** The device does not have a dual-case keyboard.

**YES** The device has a dual-case keyboard.

**Errcolor**

specifies whether the error message is to be displayed in color.

The colors you can specify are:

- BLUE
- RED
- PINK
- GREEN
- TURQUOISE
- YELLOW
- NEUTRAL

**Errhighlight**

specifies the highlighting, if any, with which error messages are to be displayed.

The forms of highlighting you can specify are:

- BLINK
- REVERSE
- UNDERLINE.

**Errintensify**

specifies whether the error message is to be displayed in an intensified field.

**Errlastline**

specifies where error messages are to be displayed.

**NO** An error message is displayed at the current cursor position and without any additional attributes.

**YES** An error message is displayed starting at the beginning of the line nearest the bottom of the screen so that the whole message fits on the screen.

Because all error messages occupy the same line, if the messages are received in quick succession, they overlay one another and earlier messages may disappear before they have been read.

**Extendeddds**

specifies whether the 3270 device or the SCS printer supports extensions to the 3270 data stream:

**NO** The device does not support 3270 data stream extensions.

**YES** The device supports 3270 data stream extensions.

**FMHparm**

specifies whether BMS is to accept user-supplied parameters for inclusion in the function management header built by BMS:

**NO** Do not accept user-supplied parameters for inclusion in the function management header built by BMS.
YES  Accept user-supplied parameters for inclusion in the function management header built by BMS.

Formfeed
specifies whether or not the device has the form feed feature, which means that BMS uses the form-feed character when formatting output documents:

NO  The device does not have the form feed feature.

YES  The device has the form feed feature.

Hilite
specifies whether the 3270 device has the extended highlight facility, which enables fields or characters to be displayed in reverse-video, underline mode, or blink (3270 only):

NO  The device does not have the extended highlight facility.

YES  The device has the extended highlight facility.

Horizform
specifies whether or not the device has the horizontal form feature, which means that BMS should use the horizontal tabbing when formatting output documents:

NO  The device does not have the horizontal form feature.

YES  The device has the horizontal form feature.

NO  The HTAB option in the BMS map definition is ignored.

YES  BMS uses horizontal tabbing when formatting output documents.

IOAREALEN
specifies the length in bytes of a terminal input/output area to be passed to a transaction.

If you specify ATI(YES), you must specify an IOAREALEN of at least one byte.

value1  Value1 specifies the minimum size of a terminal input/output area to be passed to an application program when a RECEIVE command is issued.

value2  You can specify value2 as greater than or equal to value1. In this case, when the size of an input message exceeds value1, CICS uses a terminal input/output area value2 bytes long. If the input message size also exceeds value2, the node abnormal condition program sends an exception response to the terminal.

If value2 is not specified, or is less than value1, it defaults to the value of value1.

The maximum value that may be specified for IOAREALEN is 32767 bytes. If you leave these fields blank, CICSplex SM uses the default values for your CICS environment, if there are any.

Katakana
specifies whether Katakana support is required. Katakana terminals cannot display mixed case output; uppercase characters appear as uppercase English characters, but lowercase characters appear as Katakana characters.

NO  Katakana support is not required.

YES  Katakana support is required.
TYPTMDEF

**LDClist**  
For CICS/MVS 2.1.2 and CICS/ESA 3.3 systems, specify the 1- to 8-character name of a logical device code (LDC) list.

**Lightpen**  
specifies whether a 3270 display has the selector pen feature:  

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NO</strong></td>
<td>The 3279 display does not have the selector pen feature.</td>
</tr>
<tr>
<td><strong>YES</strong></td>
<td>The 3279 display has the selector pen feature.</td>
</tr>
</tbody>
</table>

**Logmode**  
specifies how CICS is to build the BIND to be sent to the logical unit.  

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>blank</strong></td>
<td>A defined terminal definition uses the BIND image generated by the CICS definitions for this device by means of this TYPETERM definition and its associated terminal definitions.</td>
</tr>
<tr>
<td><strong>name</strong></td>
<td>This is the LOGMODE name from a VTAM logon mode table that has been set up for use by this logical unit. The name may be up to eight characters in length.</td>
</tr>
<tr>
<td><strong>0 (zero)</strong></td>
<td>This causes CICS to use some of the information from the BIND image contained in the CINIT coming from the logical unit.</td>
</tr>
</tbody>
</table>

**Logonmsg**  
specifies whether the 'good morning' transaction, specified in the GMTRAN system initialization parameter, will be:  

- Automatically initiated when the logical unit is first logged on to CICS through VTAM  
- Initiated after the terminal user’s TIMEOUT period has expired under certain conditions.  

If you have specified ERRLASTLINE=YES, the messages written by the transaction do not overwrite the error message line.

**Msrcontrol**  
specifies whether the terminal, an 8775 or 3643, has a magnetic slot reader.

**Name**  
Specify a 1- to 8-character name for the typeterm definition.

**Nepclass**  
specifies the node error program transaction class.  

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0</strong></td>
<td>This results in a link to the default node error program module.</td>
</tr>
<tr>
<td><strong>value</strong></td>
<td>The transaction class for the (nondefault) node error program module. Value can be in the range 1 through 255. For programming information about the node error program, see the CICS Customization Guide.</td>
</tr>
</tbody>
</table>

**Obformat**  
specifies whether outboard formatting is used. Obformat can be specified for two device types only:  

- 3650, SESSIONTYPE(3270)  
- LUTYPE2, for an 8100 Information System using the DPPX operating system with DPPX/DPS Version 2 for presentation services

**OBoperid**  
specifies whether CICS uses the outboard operator identifiers to support the BMS routing facilities required for this terminal. This option applies only to the 3790 and 3770 batch data interchange logical units.
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outline</td>
<td>Specifies whether the device supports field outlining:</td>
<td>The device does not support</td>
<td>The device supports field</td>
</tr>
<tr>
<td>Pagesize</td>
<td>Specifies the default page size for this printer. The default page size is</td>
<td>The device does not support</td>
<td>The device supports field</td>
</tr>
<tr>
<td>Partitions</td>
<td>Specifies whether a device is to use partitions. This option is not valid for</td>
<td>The device is not to use</td>
<td>The device is to use</td>
</tr>
<tr>
<td>Printadapter</td>
<td>For the 3275: Specifies whether the printer adapter feature and corresponding</td>
<td>The printer adapter feature</td>
<td>The printer adapter feature</td>
</tr>
<tr>
<td></td>
<td>3284 Printer Model 3 are present on the 3275 Display Station.</td>
<td>is not available.</td>
<td>is available.</td>
</tr>
<tr>
<td></td>
<td>For LUTYPE2 logical units: Specifies whether, for print requests initiated by</td>
<td>Print requests are not</td>
<td>Print requests are</td>
</tr>
<tr>
<td></td>
<td>3790, or by the 3274 or 3276, according to the printer authorization matrix</td>
<td>handled according to the</td>
<td>handled according to the</td>
</tr>
<tr>
<td></td>
<td>for both VTAM and non-VTAM attachments.</td>
<td>printer authorization</td>
<td>printer authorization</td>
</tr>
<tr>
<td></td>
<td>Progsymbols specifies whether the programmed symbol (PS) facility can be</td>
<td>Programmed symbol (PS)</td>
<td>Programmed symbol (PS)</td>
</tr>
<tr>
<td></td>
<td>used on this 3270 device or SCS printer.</td>
<td>facility cannot be used.</td>
<td>facility can be used.</td>
</tr>
<tr>
<td>Query</td>
<td>Specifies whether CICS should use the QUERY structured field to determine the</td>
<td>CICS does not use the QUERY</td>
<td>CICS uses the QUERY</td>
</tr>
<tr>
<td></td>
<td>characteristics of the device.</td>
<td>function.</td>
<td>function to determine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>the characteristics of the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>device only when the device</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>is first connected after an</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>initial or a cold</td>
</tr>
</tbody>
</table>
start of CICS. The device characteristics are stored in the CICS global catalog for use on subsequent warm and emergency starts.

**ALL** CICS uses the QUERY function to determine the characteristics of the device each time the device is connected.

**Receivesize**
Specify the maximum size of a request unit that can satisfy a VTAM RECEIVE request. The RECEIVESIZE value is transmitted to the connected logical unit, and must be in the range 0 through 30720. If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

**Recnotify**
Specify how a terminal user should be notified of a system restart (in the case of VTAM persistent sessions support) or an XRF takeover:

- **NONE** No notification is given.
- **MSG** A message is sent to the terminal screen.
- **TRAN** A transaction is initiated at the terminal.

**Recoveroption**
This option applies to the recovery of sessions in a CICS region running with VTAM persistent sessions, or with XRF.

- **SYSDEFAULT**
  - **VTAM persistent sessions:** In a CICS region running with persistent session support, this specifies that CICS is to select the optimum procedure to recover a session on system restart within the persistent session delay interval, depending on the session activity and on the characteristics of the terminal.
  - **XRF:** In a CICS region running with XRF support, this specifies that CICS is to select the optimum procedure to recover a busy session at takeover, depending on the session activity and on the characteristics of the terminal.

- **CLEARCONV**
Prevents CICS from sending an end-bracket indicator to close an in-bracket session. Instead CICS sends a CLEAR request, to reset the conversation states. If the session does not support the CLEAR request, CICS sends an UNBIND request. The CLEAR or UNBIND is sent only if the session was busy at the time of system restart (in the case of persistent sessions) or takeover (in the case of XRF).

- **RELEASESESS**
Requires CICS to send an UNBIND request to release the active session. The UNBIND is sent only if the session was busy at the time of system restart (in the case of persistent sessions), or takeover (in the case of XRF).

- **UNCONDREL**
Requires CICS to send an UNBIND request to release the active session. The UNBIND is sent whether or not the session was busy at the time of system restart (in the case of persistent session support) or the takeover (in the case of XRF).

- **NONE**
  - **VTAM persistent sessions:** In a CICS region running with persistent session support, this specifies that the terminal session is not to be
recovered at system restart within the persistent session delay interval: in effect, the terminal has no persistent session support.

Relreq
specifies whether CICS is to release the logical unit upon request by another VTAM application program.

NO  CICS is not to release the logical unit.
YES  CICS is to release the logical unit, if the logical unit is not currently part of a transaction.

RESGROUP
(Optional.) Specify the name of an existing resource group to which the definition is to be automatically added.

Routedmsgs
specifies which messages are to be routed to this terminal by an EXEC CICS ROUTE command.

ALL  BMS routes to this terminal messages that are destined for all terminals as well as those specifically destined for this terminal.
NONE  BMS does not route any messages to this terminal, whether they are destined for all terminals or for this terminal specifically.
SPECIFIC  BMS routes messages to this terminal when they are destined specifically for this terminal, but not when they are destined for all terminals.

Sendsize
Specify the maximum size of a request unit that can satisfy a VTAM SEND request, in the range 0 through 30720. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

SessionType
specifies the type of session that can be used for a VTAM SNA logical unit.

Shippable
specifies whether the definition is allowed to be sent to a remote system if this device tries to initiate a remote transaction.

NO  This definition cannot be shipped to a remote system.
YES  This definition can be shipped to a remote system.

Signoff
specifies whether the terminal should be timed out automatically.

YES  When the specified time has elapsed after the last input from the operator, the terminal is automatically signed off from CICS.
NO  The terminal is not timed out.
LOGOFF  When the specified time has elapsed after the last input from the operator, the terminal is automatically signed off from CICS and then logged off from VTAM.

Sosi
specifies whether the device supports mixed EBCDIC and double-byte character set (DBCS) fields.
The device supports mixed EBCDIC and double-byte character set (DBCS) fields.

YES The device supports mixed EBCDIC and double-byte character set (DBCS) fields.

Termmodel specifies the model number of the terminal. If the device is a component of the 3270 Information Display System, specify the model number of the terminal:

1 Specify 1 for the 3270 Model 1 displays and printers (for example, 3277 Model 1) with a default screen or buffer size of 12x40 (480 bytes/characters). TERMMODEL(1) is the default for 3270 Model 1 printers and displays.

Specify 1 for the 3275 Display Station Model 11. The CICS support obtained is identical to that obtained by coding TERMMODEL(1) for 3275 Display Station Model 1.

2 Specify 2 for the 3270 displays and printers (for example, 3278 Model 4) with a default screen or buffer size of 24x80 (1920 bytes/characters). TERMMODEL(2) is the default for the 3286 printer in 3270 compatibility mode.

Specify 2 for the 3275 Display Station Model 12. The CICS support obtained is identical to that obtained by coding TERMMODEL(2) for 3275 Display Station Model 2.

If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Textkybd specifies whether the 3270 device has the text-keyboard feature.

NO The 3270 device does not have the text-keyboard feature.

YES The 3270 device has the text-keyboard feature.

Textprint specifies whether the 3288 printer has the text-print feature.

NO The 3288 printer does not have the text-print feature.

YES The 3288 printer has the text-print feature.

Tti specifies whether transactions can be initiated at the terminal by a user.

Uctran specifies whether the input data stream from a terminal is to be translated to uppercase.

NO No uppercase translation is performed.

YES All the data input from the terminal, both the transaction identifier if present and the program data, is translated to uppercase before any processing.

TRANID
When the input data stream includes a transaction identifier, CICS translates it to uppercase before attempting to locate its definition. However, all the input data, both the transaction identifier and the program data, is passed to the program without any translation.
Userarealen
specifies the length in bytes (0 to 255) of the user area for this terminal. If you leave this field blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

User data
(Optional.) Three 8-character fields provided for any site-specific data related to the typeterm. CICSPlex SM makes no use of this user data.

Validation
specifies whether or not an 8775 or 3290 device the extended validation feature:

NO The device does not have the extended validation feature.
YES The device has the extended validation feature.

specifies whether the 8775 device has the extended validation feature, which allows fields to be defined as TRIGGER, MANDATORY FILL, or MANDATORY ENTER.

Version
(Optional.) Specify an integer in the range 1 through 15. Specify 0 or leave blank for CICSPlex SM to assign the first available version id in the range 1 through 15.

Vertical form
specifies whether the device has the vertical form feature.

NO The device does not have the vertical form feature.
YES The device has the vertical form feature.

Xrfsignoff
specifies the sign-on characteristics of a group of terminals.

FORCE CICS should force sign-off of these terminals after an extended recovery facility (XRF) takeover.

NOFORCE CICS should not force sign-off of these terminals after an extended recovery facility (XRF) takeover.
A resource assignment describes the characteristics of selected resource definitions and how those resources are to be assigned to CICS systems.

The resource definitions to be assigned must be of a single resource type (such as FILE) and must be associated with a resource group. The resource assignment identifies which resource definitions in the group are selected and to which CICS systems they are assigned. A single resource definition can be assigned as both a local and remote resource in multiple CICS systems. A resource assignment must be associated with at least one resource description (RESDESC) before any assignment can begin.

Accessing the RASGNDEF view

To display information about existing resource assignments:

Issue the command:

```
RASGNDEF [rasgn [resgroup [restype [target]]]]
```

where:

- `rasgn` is the specific or generic name of a resource assignment, or * (asterisk) for all assignments.
- `resgroup` is the specific or generic name of a resource group or * (asterisk) for all groups.
- `restype` is the specific or generic name of a resource type or * (asterisk) for all types.
- `target` is the specific or generic name of a CICS system or CICS system group that is the target scope of the resource assignments.

If no parameters are specified, the view, illustrated in Figure 115 on page 336, includes information about all resource assignments within the current context.

Select:

RASGNDEF from the ADMBAS menu.
Working with the RASGNDEF view

The topics covered by this section are:

- Action commands for the RASGNDEF view
- Hyperlink fields on page 337 from the RASGNDEF view.

Action commands

Table 35 summarizes the action commands you can use with the RASGNDEF view.

Table 35. RASGNDEF view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD rasgn</td>
<td>ADD</td>
<td>Add an association between a resource assignment and a resource description, as described in Adding a resource assignment to a resource description on page 338.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a resource assignment. The format of the resulting panels is similar to that shown in Figure 116 on page 337 and Figure 117 on page 338. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a resource assignment and add it to the data repository, as described in Creating a resource assignment on page 337.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified assignment as a starting point.</td>
</tr>
<tr>
<td>REMove rasgn</td>
<td>REM</td>
<td>Remove a resource assignment from the data repository.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a resource assignment in the data repository. The format of the resulting panels is similar to that shown in Figure 116 on page 337 and Figure 117 on page 338. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>
Hyperlink fields

Table 36 shows the hyperlink field on the RASGNDEF view.

Table 36. RASGNDEF view hyperlink field

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ResGroup</td>
<td>RESINGRP</td>
<td>Displays the resources associated with the specified resource group.</td>
</tr>
</tbody>
</table>

Creating a resource assignment

To define a resource assignment:

1. Issue the create primary (CREate) or line (CRE) action command from the RASGNDEF view.

2. Fill in the first panel, illustrated in Figure 116, which prompts you to provide information about the type of CICS resource, how the resources are accessed and used, and to which CICS systems or CICS system groups the resources are to be assigned:

   | COMMAND ====> |
   | Name ====> EYUBAA03 |
   | Description ====> SSET - Assign File Defs |
   | Target Scope ====> CICS System or System Group |
   | Related Scope ====> CICS System or System Group |
   | Resource Group ====> RESGROUP Containing definitions |
   | Resource Type ====> Resource Definition Type |
   | Usage ====> LOCAL Assignment type (LOCAL,REMOTE,LINK) |
   | Mode ====> N/A Usage Qualifier by Resource Type |
   | Referenced Assign ====> Resource Assignment Definition name |
   | Override ====> RELATED Scope of override (TARGET,RELATED,BOTH,NONE) |

   Press ENTER to create Resource Assignment.

   Type UP or DOWN to view other screens.

   Enter END or CANCEL to cancel without creating.

Figure 116. Creating a resource assignment - Page 1

3. If the resource assignment is complete, press Enter. If you want to specify a filter or override expression for the resources, issue the DOWN command.

4. Fill in the fields on the second panel (see Figure 117 on page 338):
Adding a resource assignment to a resource description

To add a resource assignment to a resource description:
1. Issue the add primary or line action command (ADD) from the RASGNDEF view.
2. Fill in the fields on the panel (see Figure 118):

3. Press ENTER to add the assignment to the resource description. Otherwise, issue either the END or the CANCEL command to return without adding the resource assignment to the resource description.
Resource assignment attribute descriptions

Provide the following information, as appropriate:

**Name** Specify a 1- to 8-character name for the resource assignment. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

**Description** *(Optional.)* Specify a 1- to 30-character description of the resource assignment.

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

If you do not specify a Target Scope value here, you must provide one in the associated RASINDSC or RESDESC definition.

**Related Scope**
If you specify a Usage value of REMOTE, enter the specific or generic name of an existing CICS system to which the remote resources are to be assigned as LOCAL. If you enter a generic value, a list of valid CICS systems is displayed.

If you specify a Usage value of REMOTE and you do not specify a Related Scope value here, you must provide one in the associated RASINDSC or RESDESC definition.

**Notes:**
1. You must also specify a Related Scope value when assigning connections (CONNDEF) that reference other CICS systems in the same CICSplex.
2. For remote transaction definitions (TRANDEFs) that are defined as dynamic, you can specify a CICS system group for the Related Scope value. For all other remote resources, you can specify a CICS system group only if it consists of a single CICS system.

**Resource Group**
Enter the specific or generic name of an existing resource group that contains, or will contain, resource definitions of the specified type. If you enter a generic value, a list of all resource groups is displayed.

If you do not specify a Resource Group value here, you must provide one in the associated RASINDSC or RESDESC definition.

**Resource Type** Specify the type of resource to be processed by this assignment statement. For a list of valid resource types, see Figure 3 on page 15.

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

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

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

FILEDEF
PROGDEF
TDQDEF
TRANDEF

Notes:
1. When you specify REMOTE, the resources are assigned to all the CICS systems identified in both the Target Scope and Related Scope fields. Likewise, when the resources associated with this assignment are installed, remote resources are installed in both the target and related scopes.

2. Although a temporary storage queue may be created on a remote system, the temporary storage model that controls the queue’s attributes is always a local resource. Therefore, when you install a temporary storage model definition, the Usage parameter must always specify LOCAL. See “Installing BAS temporary storage model definitions” on page 315. For a description of the TSMDEF Remote system attribute, see “Temporary storage model definition attributes” on page 315.

Mode For some resource types, CICSPlex SM requires additional information to determine which subset of resource attributes to use in processing the assignment. The Mode value you should specify depends on the resource type being assigned:

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

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

DYNAM Transactions are processed by the dynamic routing program.

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

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

Transient data queues (TDQDEF)
You can identify the type of transient data queue to be assigned:

EXTRA Extrapartition TDQ.

IND Indirect TDQ.
INTRA

Intrapartition TDQ.

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

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

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

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

NONE  Do not apply any override values.
BOTH   Apply the override values to both scopes.
RELATED Apply the override values to the Related Scope only.
TARGET  Apply the override values to the Target Scope only.

Assignment Name
Enter the specific or generic name of an existing resource assignment that you want to associate with a resource description. If you enter a generic value, a list of valid resource assignments is displayed.

Description Name
Enter the specific or generic name of an existing resource description with which the resource assignment is to be associated. If you enter a generic value, a list of valid resource descriptions is displayed.

Description
(Optional.) Specify a 1- to 30-character description of the resource assignment-to-description association.

Group Name
Enter the specific or generic name of a resource group that contains, or will contain, resource definitions to be processed by the resource assignment. If you enter a generic value, a list of all resource groups is displayed.

Target Scope
Enter the specific or generic name of an existing CICS system or CICS system group to which the resources named in the resource assignment are to be assigned. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

Related Scope
If the Usage value in the resource assignment is REMOTE, enter the specific or generic name of an existing CICS system to which the resources are to be assigned as LOCAL. If you enter a generic value, a list of valid CICS systems is displayed.

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

Notes:
1. If you do not specify values for the Group Name, Target Scope, and Related Scope fields on this panel, you must do so on the associated RASGNDEF or RESDESC definition.
2. Adding a resource assignment to a resource description could result in inconsistent resource set or inconsistent scope errors. For information about these types of problems and how to resolve them, see "Validation of a set of resources" on page 38 and "Validation CICS system assignments" on page 40.

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

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

Filter Expression

```
logic_expr
```

where:

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

oper Is one of the following comparison operators:

- `<` Less than
- `<=` Less than or equal to
- `=` Equal to
- `>=` Greater than or equal to
- `>` Greater than
- `~=` Not equal to

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

If the attribute accepts character data, this value can be generic. Generic values can contain:
• An asterisk (*), to represent any number of characters, including zero. The asterisk must be the last or only character in the specified value. For example:

  TRANID=PAY*

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

  TRANID=PAY+96

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

  TERMID='Z AB'

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

  DESCRIPTION='October''s Payroll'

AND/OR

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

  attr_expr AND attr_expr.

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

  attr_expr AND (attr_expr OR attr_expr).

has a different meaning than this one:

  (attr_expr AND attr_expr) OR attr_expr.

NOT

Negates one or more attribute expressions.

You can negate a single attribute expression, like this:

  NOT attr_expr

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

  NOT (attr_expr OR attr_expr).

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

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

Override string expression

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

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

  Override Expression
where:

attr  Is the name of a modifiable attribute for the resource.

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

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

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

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

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

To see a list of resource attributes that can be modified, type MODIFY in the COMMAND field and press Enter.
Chapter 59. RASINDSC (resource assignments in a resource description) view

The RASINDSC view describes the membership of a resource assignment (RASGNDEF) in a resource description (RESDESC).

Accessing the RASINDSC view

To display information about existing resource descriptions and the resource assignments associated with them:

**Issue the command:**

```
RASINDSC [resdesc [rasgn]]
```

where:

- `resdesc` is the specific or generic name of a resource description or * (asterisk) for all descriptions.
- `rasgn` is the specific or generic name of a resource assignment.

If no parameters are specified, the view, illustrated in Figure 119, includes information about all resource descriptions within the current context and the resource assignments associated with them.

**Select:**

RASINDSC from the ADMBAS menu.

Working with the RASINDSC view

The topics covered by this section are:

- "Action commands" on page 346 for the RASINDSC view
- "Hyperlink fields" on page 346 from the RASINDSC view.
RASINDSC

Action commands

Table 37 summarizes the action commands you can use with the RASINDSC view.

Table 37. RASINDSC view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse the association between a resource description and a resource assignment. The format of the resulting panel is similar to that shown in Figure 120 on page 347. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified description as a starting point.</td>
</tr>
<tr>
<td>REMove resdesc rasgn</td>
<td>REM</td>
<td>Remove the association between a resource description and a resource assignment.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update the association between a resource description and a resource assignment, as described in Updating a resource description-to-assignment association on page 347.</td>
</tr>
</tbody>
</table>

Hyperlink fields

Table 38 shows the hyperlink fields on the RASINDSC view.

Table 38. RASINDSC view hyperlink fields

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign</td>
<td>RASGNDEF</td>
<td>Displays the specified resource assignment.</td>
</tr>
<tr>
<td>ResGroup</td>
<td>RESINGRP</td>
<td>Displays the resources associated with the specified resource group.</td>
</tr>
</tbody>
</table>
Updating a resource description-to-assignment association

Figure 120 shows the format of the panel produced when you use the update line action command (UPD) from the RASINDSC view.

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>Description</th>
<th>Resource Group</th>
<th>Target Scope</th>
<th>Related Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>EYUBAD01</td>
<td>Resource description definition</td>
<td>EYUBAG01</td>
<td>Optional Resource Group</td>
<td></td>
</tr>
<tr>
<td>EYUBAA01</td>
<td>Resource assignment definition</td>
<td>EYUCSG03</td>
<td>Optional Target scope</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>1- to 30-character description</td>
<td>Optional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Group</td>
<td>Enter specific or generic name</td>
<td>Enter specific or generic name</td>
<td>Enter specific or generic name</td>
<td></td>
</tr>
<tr>
<td>Target Scope</td>
<td>CICS system or CICS system group</td>
<td>CICS system or CICS system group</td>
<td>CICS system or CICS system group</td>
<td></td>
</tr>
<tr>
<td>Related Scope</td>
<td>CICS system to which resources are assigned as LOCAL</td>
<td>CICS system to which resources are assigned as LOCAL</td>
<td>CICS system to which resources are assigned as LOCAL</td>
<td></td>
</tr>
</tbody>
</table>

Press ENTER to update Resource Assignment in Description. Type END or CANCEL to cancel without updating.

Figure 120. Updating the association between a resource description and assignment

Provide the following information, as appropriate:

**Description**
(Optional.) Specify a 1- to 30-character description of the resource description-to-assignment association.

**Resource Group**
(Optional.) Enter the specific or generic name of a resource group that contains, or will contain, resource definitions to be processed by the resource assignment. If you enter a generic value, a list of all resource groups is displayed.

**Target Scope**
(Optional.) Enter the specific or generic name of an existing CICS system or CICS system group to which the resources named in the resource assignment are to be assigned. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

**Related Scope**
(Optional.) If the Usage value in the resource assignment is REMOTE, enter the specific or generic name of an existing CICS system to which the resources are to be assigned as LOCAL. If you enter a generic value, a list of valid CICS systems is displayed.

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

Press Enter to update the resource description-to-assignment association in the data repository.

**Notes:**
1. If you do not specify values for the Resource Group, Target Scope, and Related Scope fields on this panel, you must do so on the associated RASGNDEF or RESDESC definition.
2. Updating a resource description-to-assignment association could result in inconsistent resource set or inconsistent scope errors. For information about these types of problems and how to resolve them, see "Validation of a set of resources" on page 38 and "Validation CICS system assignments" on page 40.
Chapter 60. RASPROC (resource assignment process) view

The RASPROC view displays the resources that will be selected when the specified resource assignment is processed. Resources are selected based on the contents of the associated resource group and the selection criteria of the assignment itself.

Accessing the RASPROC view

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

**Issue the command:**

```
RASPROC rasgn
```

where `rasgn` is the name of a resource assignment.

[Figure 121](#) is an example of the RASPROC view.

**Select:**

RASPROC from the ADMBAS menu.

---

![RASPROC view (left side)](#)

You can scroll to the right to see additional information, as shown in [Figure 122](#).

---

![RASPROC view (right side)](#)

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RASPROC

Working with the RASPROC view

The topics covered by this section are:

- Figure 123 on page 353 for the RASPROC view
- Hyperlink fields from the RASPROC view

Action commands

There are no actions for the RASPROC view.

Hyperlink fields

Table 39 shows the hyperlink fields on the RASPROC view.

Table 39. RASPROC view hyperlink fields

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource</td>
<td>xxxxDEF</td>
<td>Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).</td>
</tr>
<tr>
<td>Group</td>
<td>RESINGRP</td>
<td>Displays the resources associated with the specified resource group.</td>
</tr>
<tr>
<td>Referenc Resource</td>
<td>xxxxDEF</td>
<td>Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).</td>
</tr>
</tbody>
</table>

RASPROC view attribute descriptions

The fields displayed are:

Resource
  The name of the resource definition

Version
  The resource definition version.

Type
  The resource type.

Use
  Whether the resource usage is local or remote.

Mode
  The value in this field depends on the resource type being processed. See page 340.

Target
  The name of an existing CICS system or CICS system group into which the resource is to be installed.

Related
  If the Use field contains REMOTE, this is the name of the CICS system or CICS system group that holds the local definition of the resource.

Assign
  The name of the resource assignment.

Group
  The name of the resource group to which the resource definition belongs.

Referenc Resource
  Referenced resource definition name.
Ref Ver
Referenced resource definition version.

Type
Referenced resource definition type.

Alias
Alias for a remote definition.

Notes:
1. Journal definitions (JRNLDEF), file key segment definitions (FSEGDEF), and session definitions (SESSDEF) can appear in a RASPROC view; this is to present a complete picture of your logical scope. Note, however, that those resources are never actually installed in a CICS system.

2. Connection definitions (CONNDEF) can be installed in a CICS system only if they have associated SESSDEFs (as noted in the Referenc Resource field). If the Referenc Resource field for a CONNDEF is blank, the connection cannot be installed.
RASPROC
Chapter 61. RDSCPROC (resource description process) view

The RDSCPROC view displays the resources that will be selected when the specified resource description is processed. Resources can be selected from:

- Resource assignments that are currently associated with the resource description
- Resource groups that are directly associated with the resource description (via RESINDSC)

Accessing the RDSCPROC view

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

**Issue the command:**

```
RDSCPROC resdesc
```

where `resdesc` is the name of a resource description.

**Figure 123** is an example of the RDSCPROC view.

**Select:**

RDSCPROC from the ADMBAS menu.

![Figure 123. The RDSCPROC view (left side)](image)

You can scroll to the right to see additional information, as shown in **Figure 124**.

![Figure 124. The RDSCPROC view (right side)](image)
Working with the RDSCPROC view

The topics covered by this section are:

- Action commands
- Hyperlink fields

Action commands

There are no actions for the RDSCPROC view.

Hyperlink fields

Table 40 shows the hyperlink fields on the RDSCPROC view.

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource</td>
<td>xxxxDEF</td>
<td>Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).</td>
</tr>
<tr>
<td>Group</td>
<td>RESINGRP</td>
<td>Displays the resources associated with the specified resource group.</td>
</tr>
<tr>
<td>Referenc Resource</td>
<td>xxxxDEF</td>
<td>Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).</td>
</tr>
</tbody>
</table>

RDSCPROC view attribute descriptions

The fields displayed are:

Resource
The name of the resource definition

Version
The resource definition version.

Type
The resource type.

Use
Whether the resource usage is local or remote.

Mode
The value in this field depends on the resource type being processed. See page 340.

Target
The name of an existing CICS system or CICS system group into which the resource is to be installed.

Related
If the Use field contains REMOTE, this is the name of the CICS system or CICS system group that holds the local definition of the resource.

Assign
The name of the resource assignment.

Group
The name of the resource group to which the resource definition belongs.

Referenc Resource
Referenced resource definition name.
Ref Ver
Referenced resource definition version.

Type
Referenced resource definition type.

Alias
Alias for a remote definition.

Notes:
1. When the name in the Resource column is that of a DB2TDEF, the Referenced Resource column can contain the name of a DB2EDEF. What has happened in such cases is that CICSPlex SM has created a ‘ghost’ DB2TDEF entry that will result in a DB2TRAN object when that DB2EDEF is installed. This situation arises when a transaction id was specified in the DB2EDEF. In this case, the Referenced Resource field contains details of the DB2EDEF that generated the DB2TDEF, and the Type field contains ‘DB2EDEF’.

2. Journal definitions (JRNLDEF), file key segment definitions (FSEGDEF) and session definitions (SESSDEF) can appear in the RDSCPROC view; this is to present a complete picture of your logical scope. Note, however, that those resources are never actually installed in a CICS system.

3. Connection definitions (CONNDEF) can be installed in a CICS system only if they have associated SESSDEFs (as noted in the Referenc Resource field). If the Referenc Resource field for a CONNDEF is blank, the connection cannot be installed.
Chapter 62. RESDESC (resource descriptions) view

A resource description identifies a set of logically related resource definitions that can be:
- Installed in CICS systems that support resource installation
- Named as the scope for CICSPlex SM requests

Accessing the RESDESC view

To display information about existing resource descriptions,

**Issue the command:**

```
RESDESC [resdesc]
```

where *resdesc* is a specific or generic resource description name. If you omit this parameter, the view, illustrated in Figure 125, includes information about all resource descriptions within the current context.

**Select:**

RESDESC from the ADMBAS menu.

<table>
<thead>
<tr>
<th>26FEB2001 19:33:51</th>
<th>INFORMATION DISPLAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND ===&gt; SCROLL ===&gt; PAGE</td>
<td></td>
</tr>
<tr>
<td>CURR WIN ===&gt; 1 ALT WIN ===&gt;</td>
<td></td>
</tr>
<tr>
<td>W1 +RESDESC=--------EYUPLX01=EYUPLX01=26FEB2001==19:33:51=CPSM=---------4-</td>
<td></td>
</tr>
<tr>
<td>CMD Name</td>
<td>Scope</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>EYUBAD01</td>
<td>YES</td>
</tr>
<tr>
<td>EYUBAD02</td>
<td>YES</td>
</tr>
<tr>
<td>EYUBAD05</td>
<td>YES</td>
</tr>
<tr>
<td>EYUBAD09</td>
<td>NO</td>
</tr>
</tbody>
</table>

*Figure 125. The RESDESC view*

Working with the RESDESC view

The topics covered by this section are:
- "**Action commands**" for the RESDESC view
- "**Hyperlink fields** on page 358" from the RESDESC view.

**Action commands**

Table 41 on page 358 summarizes the action commands you can use with the RESDESC view.
Table 41. RESDESC view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a resource description. The format of the resulting panels is similar to that shown in Figure 126 on page 359 and Figure 127 on page 361. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a resource description and add it to the data repository, as described in “Creating a resource description”.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install the resources associated with the resource description into active systems, as described in “Installing resource descriptions” on page 66.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified description as a starting point.</td>
</tr>
<tr>
<td>REMove resdesc</td>
<td>REM</td>
<td>Remove a resource description from the data repository.</td>
</tr>
<tr>
<td>n/a</td>
<td>REP</td>
<td>For systems running CICS/ESA 4.1 or later, replace the resources associated with one resource description with the resources associated with another description, as described in “Replacing a resource description” on page 362.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update a resource description in the data repository. The format of the resulting panels is similar to that shown in Figure 126 on page 359 and Figure 127 on page 361. Most of the fields are modifiable.</td>
</tr>
</tbody>
</table>

Hyperlink fields

Table 42 shows the hyperlink field on the RESDESC view.

Table 42. RESDESC view hyperlink field

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>RASINDSC</td>
<td>Displays the resource assignments associated with the specified resource description.</td>
</tr>
</tbody>
</table>

Creating a resource description

When you use the create primary (CREate) or line (CRE) action command from the RESDESC view, a series of input panels is produced.

Figure 126 on page 359 shows the format of the first panel produced when you want to create a resource description.
Provide the following information, as appropriate:

**Name** Specify a 1- to 8-character name for the resource description. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

**Description** (Optional.) Specify a 1- to 30-character description of the resource description.

**Valid Scope** Specify whether or not the resource description is to be registered with Topology Services as a logical scope.

- **NO** The resource description is not to be registered with Topology Services as a logical scope.
- **YES** The resource description is to be registered with Topology Services as a logical scope. If you specify YES, the name you specify in the Scope Name field can be used as a scope value for end-user interface and API requests.

**Scope Name** Specify a 1- to 8-character name to be used to identify the scope in end-user interface and API requests. The scope name must be unique within the CICSplex.

**Model** (Optional.) Enter the specific or generic name of an existing resource description whose resource assignments are to be used by the new description. If you enter a generic value, a list of valid resource descriptions is displayed.

**ResGroup Scope** Enter the specific or generic name of an existing CICS system or CICS system group into which the set of resource definitions referenced by this description and the resource groups that are directly associated with it (via RESINDSC) are to be associated. If you enter a generic value, a list of valid CICS systems and CICS system groups is displayed.

The resource definitions are associated “as is” with the specified scope; no assignment or override processing is performed.
Auto Install

Specify whether or not the set of resource definitions referenced by this description and its associated resource assignments and resource groups are to be automatically installed when a target MAS connects to the CICSpex.

**NO**  The set of resource definitions, resource groups and resource assignments are not to be automatically installed.

**YES** The set of resource definitions, resource groups and resource assignments are to be automatically installed.

**Note:** The CICSSYS definition for a target MAS also affects whether resources are automatically installed. The Install Resources value determines if and when resources can be installed in that system.

If the resource description is complete, press Enter. If you want to specify replacement values for the resource assignments associated with the resource description, issue the DOWN command.

The replacement values you specify on a resource description are used only if the same fields on the associated RASGNDEF and RASINDSC definitions are blank. That is:

- Any values that are explicitly defined in the resource assignment (RASGNDEF) are used.
- For any fields that are blank in the RASGNDEF definition, the values found in the RASINDSC are used.
- For any fields that are blank in the both the RASGNDEF and RASINDSC definitions, the values you specify here are used.

Figure 127 on page 361 shows the format of the second panel for creating a resource description.
For each resource type, provide the following information, as appropriate:

**ResGroup**
Enter the specific or generic name of a resource group that contains, or will contain, resource definitions of the specified type. If you enter a generic value, a list of all resource groups is displayed.

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

**Related**
If the Usage value in the resource assignment is REMOTE, enter the specific or generic name of an existing CICS system to which the remote resources are to be assigned as LOCAL. If you enter a generic value, a list of valid CICS systems is displayed.

**Note:** For remote transaction definitions (TRANDEFS) that are defined as dynamic, you can specify a CICS system group for the Related

---

**Figure 127. Creating a resource description - Page 2**

For each resource type, provide the following information, as appropriate:

**ResGroup**
Enter the specific or generic name of a resource group that contains, or will contain, resource definitions of the specified type. If you enter a generic value, a list of all resource groups is displayed.

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

**Related**
If the Usage value in the resource assignment is REMOTE, enter the specific or generic name of an existing CICS system to which the remote resources are to be assigned as LOCAL. If you enter a generic value, a list of valid CICS systems is displayed.

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

**Note:** For each of these fields, if you do not specify a value here, you must specify a value on the associated RASGNDEF or RASINDSC definition.

Press Enter to add the resource description to the data repository.

### Replacing a resource description

When you use the replace line action command (REP) from the RESDESC view, CICSPlex SM attempts to replace all of the resources associated with an installed resource description with the resources associated with a new description. That is, CICSPlex SM:

- Discards any resources that are associated with the old resource description, but not the new one.
- Reinstalls any resources that are associated with both the old resource description and the new one.
- Installs any additional resources that are associated with the new resource description.

For replacement to occur, the CICS systems named in the Target and Related scope fields of both resource descriptions must be active and must be running a release of CICS that supports the EXEC CICS CREATE command.

Figure 128 illustrates the panel for replacing a resource description.

![Figure 128. Replacing a resource description](image)

Provide the following information, as appropriate:

**Installed Name**

Enter the specific or generic name of a currently installed resource description that is to be replaced. If you enter a generic value, a list of valid resource descriptions is displayed.

**Notify**

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

- **NO** No checking is performed.
- **FULL** Perform both INACTIVE and RELEASE checking.
- **INACTIVE** Check for CICS systems in the target scope that are not currently active.
RELEASE
Check for CICS systems in the target scope that do not support EXEC CICS CREATE commands.

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

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

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

NO  Do not force the installation of resources.
YES Force the installation of resources.

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSPlex SM then checks the version and CHANGETIME values of the installed resource to see if they are the same as for the one being installed. If all of these conditions are met, CICSPlex SM considers the new resource a duplicate and does not install it.

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

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

Note: For information on what happens if your request does not complete successfully, see "Handling dynamic installation errors" on page 81.
Chapter 63. RESGROUP (resource groups) view

A resource group is used to associate one or more related resource definitions. The resource definitions in a resource group can be for the same or different resource types.

Accessing the RESGROUP view

To display information about existing resource groups:

**Issue the command:**

```
RESGROUP [resgroup]
```

where `resgroup` is a specific or generic resource group name. If you omit this parameter, the view, illustrated in Figure 129, includes information about all resource groups within the current context.

**Select:**

RESGROUP from the ADMBAS menu.

<p>| 26FEB2001 19:33:51 ----------- INFORMATION DISPLAY ----------------------------- |
| COMMAND ====&gt; SCROLL ===&gt; PAGE |
| CURR WIN ===&gt; 1 ALT WIN ===&gt; |
| W1 =RESGROUP=----------------EYUPLEX01=EYUPLEX01=26FEB2001=19:33:51=CPSM=----------------== |</p>
<table>
<thead>
<tr>
<th>CMD Name</th>
<th>Description</th>
<th>Restype</th>
<th>ResVer</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>EYUBAG01</td>
<td>SSET - WLM IVP Application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYUBAG02</td>
<td>SSET - CPU Only Application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYUBAG05</td>
<td>SSET - Autoinst Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYUBAG06</td>
<td>SSET - Common Defs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 129. The RESGROUP view

Working with the RESGROUP view

The topics covered by this section are:

- “Action commands” for the RESGROUP view.
- “Overtype commands” on page 367 for the RESGROUP view.
- “Hyperlink fields” on page 367 from the RESGROUP view.

Action commands

Table 43 on page 366 summarizes the action commands you can use with the RESGROUP view. Table 44 on page 367 identifies the overtype fields that you can use with the RES action command.
<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>ADD</td>
<td>Add an association between a resource group and a resource description, as described in &quot;Adding a resource group to a resource description&quot; on page 371.</td>
</tr>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a resource group definition. Neither of the fields is modifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a resource group and add it to the data repository, as described in &quot;Creating a resource group&quot; on page 367.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install the resources associated with the resource group in an active system, as described in &quot;Installing resource groups&quot; on page 59.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified group as a starting point.</td>
</tr>
<tr>
<td>REMove resgroup</td>
<td>REM</td>
<td>Remove a resource group from the data repository. <strong>Note:</strong> You cannot remove a resource group if it is currently named in a resource description, resource assignment, or description-to-assignment association. You must first identify a new resource group or remove the RESDESC, RASGNDEF, or RASINDSC definition altogether.</td>
</tr>
<tr>
<td>n/a</td>
<td>RES</td>
<td>Add multiple resource definitions of the specified type to a resource group, as described in &quot;Adding resource definitions to a resource group&quot; on page 368.</td>
</tr>
</tbody>
</table>
Overttype commands

Table 44. RESGROUP view overtype fields

<table>
<thead>
<tr>
<th>Field name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restype</td>
<td>The type of resource definitions to be added to the group. For a list of valid resource types, see Figure 3 on page 15.</td>
</tr>
<tr>
<td>ResVer</td>
<td>A version number in the range 1 to 15, to limit the list to resource definitions of the specified version.</td>
</tr>
<tr>
<td>Pattern</td>
<td>A generic resource name, to limit the list to resource definitions that match the specified pattern.</td>
</tr>
</tbody>
</table>

Hyperlink fields

Table 45 shows the hyperlink field on the RESGROUP view.

Table 45. RESGROUP view hyperlink field

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>RESINGRP</td>
<td>Displays the resources associated with the specified resource group.</td>
</tr>
</tbody>
</table>

Creating a resource group

Figure 130 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the RESGROUP view.

COMMAND ===> 

Name ===> EYUBAG04
Description ===> SSET - Test Group
Model Group ===>
Copy Resources ===> NO (ASSOCIATIONS, MEMBERS, NO)

Press ENTER to create RESGROUP.
Type END or CANCEL to cancel without creating.

Figure 130. Creating a resource group

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the resource group. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

Description (Optional.) Specify a 1- to 30-character description of the resource group.

Model Group (Optional.) Enter the specific or generic name of an existing resource group whose resource definitions are to be used by the new group. If you enter a generic value, a list of all resource groups is displayed.
RESGROUP

Copy Resources

If you specified a name in the Model Group field, indicate which definitions are to be copied from the model resource group to the new group:

NO  Do not copy any definitions from the model group.

ASSOCIATIONS

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

MEMBERS

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

Press Enter to add the resource group to the data repository.

Adding resource definitions to a resource group

When you issue the resource line action command (RES) from the RESGROUP view, you must enter a specific resource type value in the Restype field. If you enter an invalid value or no value at all, the selection list shown in Figure 131 on page 369 appears.
You can select a resource type from this list by typing an S (for select) to the left of the value and pressing Enter.

Once you have identified the type of resource definitions to be added to the group, the selection list shown in Figure 132 on page 370 appears.
This panel provides the following information:

**Resource Group**
The name of the resource group to which resource definitions are to be added.

**Resource Type**
The resource type that you specified in the Restype field when you issued the RES command.

The remainder of the panel lists resource definitions of the specified type. If you also specified a version in the ResVer field or a generic resource name in the Pattern field of the RESGROUP view when you issued the RES command, the list is limited to definitions that match your criteria.

For each resource definition, the following information is provided:

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

**Ver**
The version level of the definition.

**Description**
A description of the definition, if one was supplied when it was created.

You can select one or more resource definitions from this list by typing an S (for select) to the left of the definitions. You can use the UP and DOWN commands (or equivalent PF keys) to scroll the selection list.

**Note:** If you type a character other than S in the Sel field, the message “Invalid Selection” appears in the Error field. When you change the invalid character to an S and press Enter, the message is removed.

Once you have made all of your selections, press Enter to add the resource definitions to the resource group in the data repository. To cancel the request without adding any resource definitions, issue the END command.

**Note:** Adding resource definitions to a resource group could result in inconsistent resource set errors. For information about this type of problem and how to resolve it, see [Validation of a set of resources](#) on page 38.
Adding a resource group to a resource description

Figure 133 shows the format of the panel produced when you use the add line action command (ADD) from the RESGROUP view.

Command ===>

Resource Group ===> EYUBAG04
Resource Description ===> EYUBAD03
Description ===>

Press ENTER to add Group to Description.
Type END or CANCEL to cancel without adding.

Figure 133. Adding a resource group to a resource description

Provide the following information, as appropriate:

Resource Group
Enter the specific or generic name of an existing resource group that you want to associate with a resource description. If you enter a generic value, a list of all resource groups is displayed.

Resource Description
Enter the specific or generic name of an existing resource description with which the resource group is to be associated. If you enter a generic value, a list of valid resource descriptions is displayed.

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

Press Enter to add the resource group to the specified resource description in the data repository.

Note: Adding a resource group to a resource description could result in inconsistent resource set errors. For information about this type of problem and how to resolve it, see Validation of a set of resources on page 38.
Chapter 64. RESINDSC (resource groups in description) view

The RESINDSC view describes the membership of a resource group (RESGROUP) in a resource description (RESDESC).

Accessing the RESINDSC view

To display information about existing resource descriptions and the resource groups associated with them:

**Issue the command:**

```
RESINDSC [resdesc [resgroup]]
```

where:

- `resdesc`  
  Is the specific or generic name of a resource description or * (asterisk) for all descriptions.

- `resgroup`  
  Is the specific or generic name of a resource group.

If no parameters are specified, the view, illustrated in Figure 134, includes information about all resource descriptions within the current context and the resource groups associated with them.

**Select:**

RESINDSC from the ADMBAS menu.

Working with the RESINDSC view

The topics covered by this section are:

- ["Action commands"](page 374) for the RESINDESC view.
- ["Hyperlink fields"](page 374) from the RESINDESC view.

**Action commands**

Table 46 on page 374 summarizes the action commands you can use with the RESINDSC view.

Figure 134. The RESINDSC view
Table 46. RESINDSC view action commands

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse the association between a resource description and a resource group. The format of the resulting panel is similar to that shown in Figure 135. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified description as a starting point.</td>
</tr>
<tr>
<td>REM</td>
<td>REM</td>
<td>Remove the association between a resource description and a resource group.</td>
</tr>
<tr>
<td>n/a</td>
<td>UPD</td>
<td>Update the association between a resource description and a resource group, as described in [Updating a resource description-to-group association].</td>
</tr>
</tbody>
</table>

Hyperlink fields

Table 47 shows the hyperlink fields on the RESINDSC view.

Table 47. RESINDSC view hyperlink fields

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>RESDESC</td>
<td>Displays information about the selected resource description.</td>
</tr>
<tr>
<td>ResGroup</td>
<td>RESGROUP</td>
<td>Displays information about the selected resource group.</td>
</tr>
</tbody>
</table>

Updating a resource description-to-group association

Figure 135 shows the format of the panel produced when you use the update line action command (UPD) from the RESINDSC view.

```
COMMAND ===> 
Resource Description    EYUBAD03 
Resource Group          EYUBAG02 
Description ===> 

Press ENTER to update Resource Group in Description. Type END or CANCEL to cancel without updating.
```

Figure 135. Updating the association between a resource description and group

Provide the following information, as appropriate:

**Description**

(Optional.) Specify a 1- to 30-character description of the resource description-to-group association.
RESINDSC

Press Enter to update the resource description-to-group association in the data repository.
Chapter 65. RESINGRP (resource definitions in resource group) view

The RESINGRP view displays information about resource groups and the resource definitions associated with them.

Accessing the RESINGRP view

To display information about existing resource groups and the resource definitions associated with them:

**Issue the command:**

```
RESINGRP [resgroup [resdef [restype]]]
```

where:

- **resgroup**
  - Is the specific or generic name of a resource group or * (asterisk) for all groups.

- **resdef**
  - Is the specific or generic name of a resource definition or * (asterisk) for all definitions.

- **restype**
  - Is a specific resource type.

If no parameters are specified, the view, illustrated in Figure 136, includes information about all resource groups within the current context and the resource definitions associated with them.

**Select:**

RESINGRP from the ADMBAS menu.

![Figure 136. The RESINGRP view](image)

Working with the RESINGRP view

The topics covered by this section are:

- **“Action commands” on page 378** for the RESINGRP view.
- **“Hyperlink fields” on page 378** from the RESINGRP view.
### RESINGRP

### Action commands

Table 48 summarizes the action commands you can use with the RESINGRP view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>MAP</td>
<td>Display a visual map of business application services definitions using the specified group as a starting point.</td>
</tr>
<tr>
<td>REMove resgroup resdef</td>
<td>REM</td>
<td>Remove the association between a resource group and a resource definition.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the RESINGRP view.
The SYSLINK view displays information about the links between CICS systems in a CICSpex.

Accessing the SYSLINK view

To display information about the links that exist between CICS systems in the CICSpex:

**Issue the command:**

```
SYSLINK [primary [secondary]]
```

where:

**primary**

Is the specific or generic name of a CICS system or * (asterisk) for all CICS systems.

**secondary**

Is the specific or generic name of a CICS system to which the specified primary CICS system is linked.

If no parameters are specified, the view includes information about all system links defined in the current context, as illustrated in Figure 137.

**Select:**

- SYSLINK from the ADMBAS menu.

---

**Figure 137. The SYSLINK view**

The terms Primary and Secondary are used in the SYSLINK view to identify two CICS systems to be connected by a corresponding link. The Primary system has the values defined in the installed CONNDEF and SESSDEF definitions. For the Secondary system, some of the values are altered by the install process. In the Secondary CICS system for an MRO connection, the Receive count is swapped with the Send count, and the Receive size is swapped with the Send size. In the Secondary system for an APPC connection, the Receive size field is swapped with the Send size and the 'Maximum number of sessions supported as contention winners' is recalculated by subtracting the 'Maximum number of sessions supported as contention winners' from the 'Maximum number of sessions in the group' in the Primary system. For example, if Maximum(90, 10) is specified, this value is installed
in the Primary system, and Maximum(90, 80) is installed in the Secondary system. This creates a communications link, with the corresponding values, between the CICS systems.

A system link is identified in the data repository by both CICS system names. A given CICS system name may be in the Primary position of some system link definitions and in the Secondary position of others, depending on how the definition was created. Any definition that names that system, regardless of its position, is a valid link for the system. However, because the same system name can appear in either the Primary or Secondary field, the SYSLINK view has certain limitations:

- The SORT display command cannot display all the system links for a given CICS system together. SORT enables you to sort records based on the contents of a single field, but the CICS system name can be in either of two fields.
- A single SYSLINK view cannot display all the system links for a given CICS system to the exclusion of all other links. Again, because a system can be either the primary or secondary system in a link, a single SYSLINK command cannot adequately filter the records. Using the systems in Figure 137 on page 379 as an example, you would have to issue both of these commands:
  - SYSLINK EYUMAS1B
  - SYSLINK * EYUMAS1B

to isolate all of the system links for EYUMAS1B.

### Working with the SYSLINK view

The topics covered by this section are:

- [Action commands](#) for the SYSLINK view.
- [Hyperlink fields](#) from the SYSLINK view.

### Action commands

Table 49 summarizes the action commands you can use with the SYSLINK view.

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Line command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>BRO</td>
<td>Browse a CICS system link definition. The format of the resulting panel is similar to that shown in Figure 138 on page 381. All of the fields are nonmodifiable.</td>
</tr>
<tr>
<td>CREate</td>
<td>CRE</td>
<td>Create a CICS system link definition and add it to the data repository, as described in Creating a CICS system link on page 381.</td>
</tr>
<tr>
<td>n/a</td>
<td>INS</td>
<td>For systems running either CICS/ESA 4.1 and later, install a CICS system link in an active system, as described in Installing System links on page 68.</td>
</tr>
<tr>
<td>n/a</td>
<td>REM</td>
<td>Remove a CICS system link definition from the data repository, as described in Removing a CICS system link on page 381.</td>
</tr>
</tbody>
</table>

### Hyperlink fields

There are no hyperlink fields in the SYSLINK view.
Creating a CICS system link

Figure 138 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the SYSLINK view.

Provide the following information, as appropriate:

**Primary System**
Specify the 1- to 8-character name of a CICS system. The CICS system that you specify must have a system ID defined for it (that is, the SYSIDNT field of the CICSSYS definition must contain a valid system ID).

**Secondary System**
Specify the 1- to 8-character name of a CICS system to which you want the primary system linked. The CICS system that you specify must have a system ID defined for it (that is, the SYSIDNT field of the CICSSYS definition must contain a valid system ID).

**ConnDef Name**
Specify the 1- to 4-character name of the connection definition (CONNDEF) that describes the link.

**SessDef Name**
Specify the 1- to 8-character name of the sessions definition (SESSDEF) that is used to create the link.

**Version**
Specify the version of the connection and sessions definitions being used to create the link, in the range 1 to 15.

Press Enter to create the system link definition in the CICSPlex SM data repository.

Removing a CICS system link

Figure 139 on page 383 shows the format of the panel produced when you use the remove (REM) line action command from the SYSLINK view.
Figure 139. Removing a CICS system link

From this panel you can verify which CICS system link is being removed.

Press Enter to remove SYSLINK.
Type END or CANCEL to cancel without removing.

Press Enter to remove the system link definition from the CICSPlex SM data repository. To cancel the remove action, type END or CANCEL; the system link definition remains in the data repository.
Chapter 67. SYSRES (CICS system resources) view

The SYSRES view displays the resources that will be assigned to a specified CICS system. Resources are selected based on the resource descriptions currently associated with the CICS system.

Note: Resources named in a resource assignment are included in the SYSRES view only if that assignment is associated with a resource description.

Accessing the SYSRES view

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

**Issue the command:**

```
SYSRES sysname
```

where `sysname` is the name of a CICS system within the current context.

**Select:**

SYSRES from the ADMBAS menu.

**Figure 140** is an example of the SYSRES view.

```
26FEB2001 11:30:30 --------- INFORMATION DISPLAY ------------------------
COMMAND ====> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===>
>W1 =SYSRES=----------------EYUPLX01=EYUPLX01=26FEB2001==11:30:30=CPSM=====3===
CMD System Resource Ver Type Use Mode ResDesc Assign Group Refere
--- -------- -------- --- ----- --- ----- -------- ------- -------- Resour
EYUMAS1A EYUFIL07 1 FILE LOC
EYUMAS1A EYUFIL08 1 FILE LOC
EYUMAS1A EYUFIL09 1 FILE LOC
```

**Figure 140. The SYSRES view (left side)**

You can scroll to the right to see additional information, as shown in **Figure 141**.

```
26FEB2001 11:30:30 --------- INFORMATION DISPLAY ------------------------
COMMAND ====> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===>
<W1 =SYSRES=--------------EYUPLX01=EYUPLX01=26FEB2001==11:30:30=CPSM=====3===
CMD System Reference Ref Type Alias
--- -------- Resource Ver -------- --------
EYUMASIA
EYUMASIA
EYUMASIA
```

**Figure 141. The SYSRES view (right side)**
Working with the SYSRES view

The topics covered by this section are:
- [Action commands](#) for the SYSRES view.
- [Hyperlink fields](#) from the SYSRES view.

Action commands

There are no actions for the SYSRES view.

Hyperlink fields

Table 50 shows the hyperlink fields on the SYSRES view.

<table>
<thead>
<tr>
<th>Hyperlink field</th>
<th>View displayed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource</td>
<td>xxxxDEF</td>
<td>Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).</td>
</tr>
<tr>
<td>Group</td>
<td>RESINGRP</td>
<td>Displays the resources associated with the specified resource group.</td>
</tr>
<tr>
<td>Referenc Resource</td>
<td>xxxxDEF</td>
<td>Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).</td>
</tr>
</tbody>
</table>

SYSRES view attribute descriptions

The fields displayed are:

- **Resource**: The name of the resource definition.
- **Version**: The resource definition version.
- **Type**: The resource type.
- **Use**: Whether the resource usage is local or remote.
- **Mode**: The value in this field depends on the resource type being processed. See page 340.
- **Target**: The name of an existing CICS system or CICS system group into which the resource is to be installed.
- **Related**: If the Use field contains REMOTE, this is the name of the CICS system or CICS system group that holds the local definition of the resource.
- **Assign**: The name of the resource assignment.
- **Group**: The name of the resource group to which the resource definition belongs.
- **Referenc Resource**: Referenced resource definition name.
SYSRES

Ref Ver
   Referenced resource definition version.

Type    Referenced resource definition type.

Alias   Alias for a remote definition.

Notes:
   1. When the name in the Resource column is that of a DB2TDEF, the Referenced Resource column can contain the name of a DB2EDEF. What has happened in such cases is that CICSPlex SM has created a ‘ghost’ DB2TDEF entry that will result in a DB2TRAN object when that DB2EDEF is installed. This situation arises when a transaction id was specified in the DB2EDEF. In this case, the Referenced Resource field contains details of the DB2EDEF that generated the DB2TDEF.

   2. Journal definitions (JRNLDDEF), file key segment definitions (FSEGDEF) and session definitions (SESSDEF) can appear in a SYSRES view; this is to present a complete picture of your logical scope. Note, however, that those resources are never actually installed in a CICS system.

   3. Connection definitions (CONNDEF) can be installed in a CICS system only if they have associated SESSDEFs (as noted in the Referenc Resource field). If the Referenc Resource field for a CONNDEF is blank, the connection cannot be installed.
# Bibliography

## CICS Transaction Server for z/OS

- **CICS Transaction Server for z/OS Release Guide**: GC34-5701
- **CICS Transaction Server for z/OS Migration Guide**: GC34-5699
- **CICS Transaction Server for z/OS Installation Guide**: GI10-2529
- **CICS Transaction Server for z/OS Program Directory**: GI10-2529
- **CICS Transaction Server for z/OS Licensed Program Specification**: GC34-5698
- **CICS Transaction Server for z/OS Version 2 Release 1**

The above titles are the only unlicensed books available in hardcopy for CICS Transaction Server for z/OS Version 2 Release 1. All the remaining CICS and CICSPlex SM books are supplied in softcopy only in the CICS Information Center, which is distributed on CD-ROM.

## CICS books for CICS Transaction Server for z/OS

### General
- **CICS User's Handbook**: SX33-6116
- **CICS Transaction Server for z/OS Glossary**: GC34-5696

### Administration
- **CICS System Definition Guide**: SC34-5725
- **CICS Customization Guide**: SC34-5706
- **CICS Resource Definition Guide**: SC34-5722
- **CICS Operations and Utilities Guide**: SC34-5717
- **CICS_Supplied_Transactions**: SC34-5724

### Programming
- **CICS Application Programming Guide**: SC34-5702
- **CICS Application Programming Reference**: SC34-5703
- **CICS System Programming Reference**: SC34-5726
- **CICS Front End Programming Interface User's Guide**: SC34-5710
- **CICS C++ OO Class Libraries**: SC34-5706
- **CICS Distributed Transaction Programming Guide**: SC34-5704
- **CICS_Business_Transaction_Services**: SC34-5881

### Diagnosis
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- **CICS Messages and Codes**: SC34-5716
- **CICS Diagnosis Reference**: SC34-5707
- **CICS Data Areas**: SC34-5709
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- **CICS Supplementary Data Areas**: SC34-5729

### Communication
- **CICS Intercommunication Guide**: SC34-5712
- **CICS Family: Interproduct Communication**: SC34-0824
- **CICS Family: Communicating from CICS on System/390**: SC34-1697
- **CICS External Interfaces Guide**: SC34-5705
- **CICS Internet Guide**: SC34-5710

### Special topics
- **CICS Recovery and Restart Guide**: SC34-5714
- **CICS Performance Guide**: SC34-5716
- **CICS IMS Database Control Guide**: SC34-5717
- **CICS RACF Security Guide**: SC34-5720

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CICSPlex SM books for CICS Transaction Server for z/OS

General
- CICSPlex SM Concepts and Planning SC34-5732
- CICSPlex SM User Interface Guide SC34-5729
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Other CICS books
- Designing and Programming CICS Applications SR23-9693
- CICS Application Migration Aid Guide SC34-0788
- CICS Family: API Structure SC33-1007
- CICS Family: Client/Server Programming SC33-1435
- CICS Transaction Gateway for OS/390 Administration SC34-5528
- CICS Family: General Information SC33-6156
- CICS 4.1 Sample Applications Guide SC33-1173
- CICS/ESA 3.3 XRF Guide SC33-0661

Note: The CICS Transaction Server for OS/390: Planning for Installation book that was part of the library for CICS Transaction Server for OS/390, Version 1 Release 3, is now merged with the CICS Transaction Server for z/OS Installation Guide. If you have any questions about the CICS Transaction Server for z/OS library, see CICS Transaction Server for z/OS Installation Guide which discusses both hardcopy and softcopy books and the ways that the books can be ordered.

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Updates to the softcopy are clearly marked by revision codes (usually a “#” character) to the left of the changes.
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