CICS® Transaction Server for OS/390®

CICSPlex® SM Managing Business Applications

Release 3

CICS® Transaction Server for OS/390®

CICSPlex® SM Managing Business Applications

Release 3

> **Note!**
>
> Before using this information and the product it supports, be sure to read the general information under "Notices" on page vii.

Second Edition, March 1999

This edition applies to Release 3 of CICS Transaction Server for OS/390, program number 5655-147, and to all subsequent versions, releases, and modifications until otherwise indicated in new editions. Information in this edition was previously contained in SC33-1809-00, which is now obsolete. Make sure you are using the correct edition for the level of the product. The technical changes for this edition are summarized under "Summary of changes," and are indicated by a vertical bar to the left of a change.

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Contents

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vii

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This book is intended to help you administer your IBM CICSPlex System Manager (CICSPlex SM) system.

This book also documents Product-sensitive Programming Interface and Associated Guidance Information provided by CICSPlex SM and CICS/ESA.

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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 SM Concepts and Planning
> For an introduction to CICSPlex SM and the CICSPlex SM Starter Set

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

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

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 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 Transaction Server for VSE/ESA Release 1
- CICS Transaction Server for OS/2 Warp 4.1
- Transaction Server for OS/2 Warp 4.0

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 for VSE/ESA 2.3
- CICS for VSE/ESA 2.2
- CICS for OS/2 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 OS/390 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

CICS system	CICSPlex SM component of CICS TS 1.3	CICSPlex SM 1.3	CICSPlex SM 1.2
CICS TS 1.3	Yes	No	No
CICS TS 1.2	Yes	Yes	No
CICS TS 1.1	Yes	Yes	Yes
CICS for MVS/ESA 4.1	Yes	Yes	Yes
CICS for MVS/ESA 3.3	No	Yes	Yes
CICS for MVS 2.1.2	No	Yes	Yes
CICS TS for VSE/ESA Rel 1	Yes	No	No
CICS for VSE/ESA 2.3	No	Yes	Yes
CICS for VSE/ESA 2.2	No	Yes	Yes
CICS TS for OS/2 4.1	Yes	No	No
TS for OS/2 4.0	Yes	Yes	Yes
CICS for OS/2 2.0.1	No	Yes	Yes

Notes on terminology

In the text of this book, the term **CICSPlex SM** (spelled with an uppercase letter *P*) means the IBM CICSPlex System Manager element of CICS Transaction Server for OS/390 Release 3. The term **CICSplex** (spelled with a lowercase letter *p*) means the largest set of CICS systems to be managed by CICSPlex SM as a single entity.

Other terms used in this book are:

CICS TS for OS/390
    The CICS component of the CICS Transaction Server for OS/390 Release 3

MVS   MVS/Enterprise Systems Architecture SP™ (MVS/ESA™)

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.

For an explanation of other CICSPlex SM terms used in this book, please refer to the Glossary on page 303.

Syntax notation and conventions used in this book
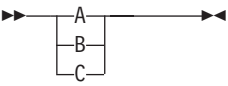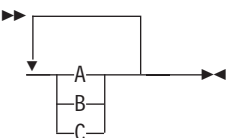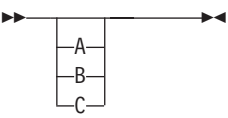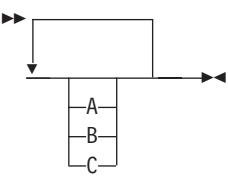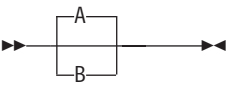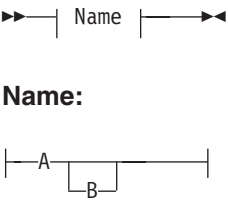
The syntax descriptions of the CICSPlex SM commands use the following symbols:
- Braces { } enclose two or more alternatives from which one must be chosen.
- Square brackets [ ] enclose one or more optional alternatives.
- The OR symbol | separates alternatives.

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

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

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

Bibliography

CICS Transaction Server for OS/390

CICS Transaction Server for OS/390: Planning for Installation	GC33-1789
CICS Transaction Server for OS/390 Release Guide	GC34-5352
CICS Transaction Server for OS/390 Migration Guide	GC34-5353
CICS Transaction Server for OS/390 Installation Guide	GC33-1681
CICS Transaction Server for OS/390 Program Directory	GI10-2506
CICS Transaction Server for OS/390 Licensed Program Specification	GC33-1707

CICS books for CICS Transaction Server for OS/390

General

CICS Master Index	SC33-1704
CICS User's Handbook	SX33-6104
CICS Transaction Server for OS/390 Glossary (softcopy only)	GC33-1705

Administration

CICS System Definition Guide	SC33-1682
CICS Customization Guide	SC33-1683
CICS Resource Definition Guide	SC33-1684
CICS Operations and Utilities Guide	SC33-1685
CICS Supplied Transactions	SC33-1686

Programming

CICS Application Programming Guide	SC33-1687
CICS Application Programming Reference	SC33-1688
CICS System Programming Reference	SC33-1689
CICS Front End Programming Interface User's Guide	SC33-1692
CICS C++ OO Class Libraries	SC34-5455
CICS Distributed Transaction Programming Guide	SC33-1691
CICS Business Transaction Services	SC34-5268

Diagnosis

CICS Problem Determination Guide	GC33-1693
CICS Messages and Codes	GC33-1694
CICS Diagnosis Reference	LY33-6088
CICS Data Areas	LY33-6089
CICS Trace Entries	SC34-5446
CICS Supplementary Data Areas	LY33-6090

Communication

CICS Intercommunication Guide	SC33-1695
CICS Family: Interproduct Communication	SC33-0824
CICS Family: Communicating from CICS on System/390	SC33-1697
CICS External Interfaces Guide	SC33-1944
CICS Internet Guide	SC34-5445

Special topics

CICS Recovery and Restart Guide	SC33-1698
CICS Performance Guide	SC33-1699
CICS IMS Database Control Guide	SC33-1700
CICS RACF Security Guide	SC33-1701
CICS Shared Data Tables Guide	SC33-1702
CICS Transaction Affinities Utility Guide	SC33-1777

CICS DB2 Guide	SC33-1939

CICSPlex SM books for CICS Transaction Server for OS/390

General

CICSPlex SM Master Index	SC33-1812
CICSPlex SM Concepts and Planning	GC33-0786
CICSPlex SM User Interface Guide	SC33-0788
CICSPlex SM Web User Interface Guide	SC34-5403
CICSPlex SM View Commands Reference Summary	SX33-6099

Administration and Management

CICSPlex SM Administration	SC34-5401
CICSPlex SM Operations Views Reference	SC33-0789
CICSPlex SM Monitor Views Reference	SC34-5402
CICSPlex SM Managing Workloads	SC33-1807
CICSPlex SM Managing Resource Usage	SC33-1808
CICSPlex SM Managing Business Applications	SC33-1809

Programming

CICSPlex SM Application Programming Guide	SC34-5457
CICSPlex SM Application Programming Reference	SC34-5458

Diagnosis

CICSPlex SM Resource Tables Reference	SC33-1220
CICSPlex SM Messages and Codes	GC33-0790
CICSPlex SM Problem Determination	GC33-0791

Other CICS books

CICS Application Programming Primer (VS COBOL II)	SC33-0674
CICS Application Migration Aid Guide	SC33-0768
CICS Family: API Structure	SC33-1007
CICS Family: Client/Server Programming	SC33-1435
CICS Family: General Information	GC33-0155
CICS 4.1 Sample Applications Guide	SC33-1173
CICS/ESA 3.3 XRF Guide	SC33-0661

If you have any questions about the CICS Transaction Server for OS/390 library, see *CICS Transaction Server for OS/390: Planning for Installation* which discusses both hardcopy and softcopy books and the ways that the books can be ordered.

Summary of changes

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

New and changed function for CICS Transaction Server for OS/390 Release 3

The following changes have been made to this book to support the new functions of CICS Transaction Server for OS/390 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).

Changes to this book for CICS Transaction Server for OS/390 Release 3

In addition to changes made for new function, the following changes have been made to this book for CICS Transaction Server for OS/390 Release 3:

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

- The SYSLINK command has been moved from the *CICSPlex SM Administration* to "Chapter 7. Administration views" on page 245.

Part 1. Business Application Services guide

This part provides guidance about implementing CICSPlex SM Business Application Services (BAS) at your enterprise; it complements the reference information provided in "Part 2. Business Application Services reference" on page 61.

Chapter 1. Introduction

This chapter introduces the Business Application Services (BAS) component of CICSPlex SM and provides an overview of its features and uses. It includes the following sections:
- "What is BAS?"
- "How to access BAS" on page 4
- "The BAS objects" on page 5
- "Controlling resources by resource description" on page 22

What is BAS?

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

Business Application Services provides the following facilities:

Centralized resource definition
> With BAS, you can implement CEDA-like resource definition and association across the entire CICSplex. The CICSPlex SM data repository (EYUDREP) can serve as the central repository for CICS resource definitions. CICSPlex SM minimizes the number of resource definitions you need for your CICSplex by:
> - Providing a single-system image approach to defining CICS resources across all supported platforms (ESA, MVS, VSE, and OS/2).
> - Producing both local and remote instances of a resource from the attributes of a single definition.
> - Managing multiple versions of a definition (for example, as it progresses from testing to production).
> - Generating multiple CICS communication links from a single set of connection and session definitions.

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

Distributed resource installation
> Resources that are defined to CICSPlex SM must still be installed in the appropriate systems, either by CICS or CICSPlex SM. 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:
> - CICS BTS process types

- DB2® connections and transactions
- Document templates
- FEPI nodes, pools, property sets and targets
- Files and key file segment definitions
- IIOP request models
- Map sets
- Partition sets
- Programs
- Sysplex enqueue models
- TCP/IP services
- Temporary storage models
- Transactions
- Transient data queues

Region property resources

These are the global resources that support the running of a CICS system:
- Journals
- Journal models (CICS TS for OS/390 only)
- Local shared resource (LSR) pools
- Profiles
- Transaction classes
- Terminals
- Typeterms

Connectivity resources

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

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

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

Using the 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 "Part 2. Business Application Services reference" on page 61.

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 "Appendix. Extracting records from the CSD" on page 295.

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 respository. You can use the DUMP command to retrieve existing resource definitions from the CICSPlex SM data repository. Then, after making any required changes to the definitions, you can use the DUMP output as input to another batched repository-update facility run that creates resource definitions for the new CICS platform.

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

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 CICSplex. The attributes of each resource definition (xxxxDEF) are identical to those of the equivalent CICS CEDA definition.

For example, to define a CICS connection, you use the CONNDEF resource table or view. 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 "Chapter 6. Resource definition views" on page 67.

Administration objects

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

Base objects

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

RASGNDEF

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

RESDESC

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

RESGROUP

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

Association objects

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

RASINDSC

Associates a resource assignment with a resource description.

RESINDSC

Associates a resource group with a resource description.

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 on page 7 represents a simple (or interim) approach to managing CICS resources using the CICSPlex SM object model of definitions in groups, groups associated with descriptions, and descriptions associated with CICS systems.
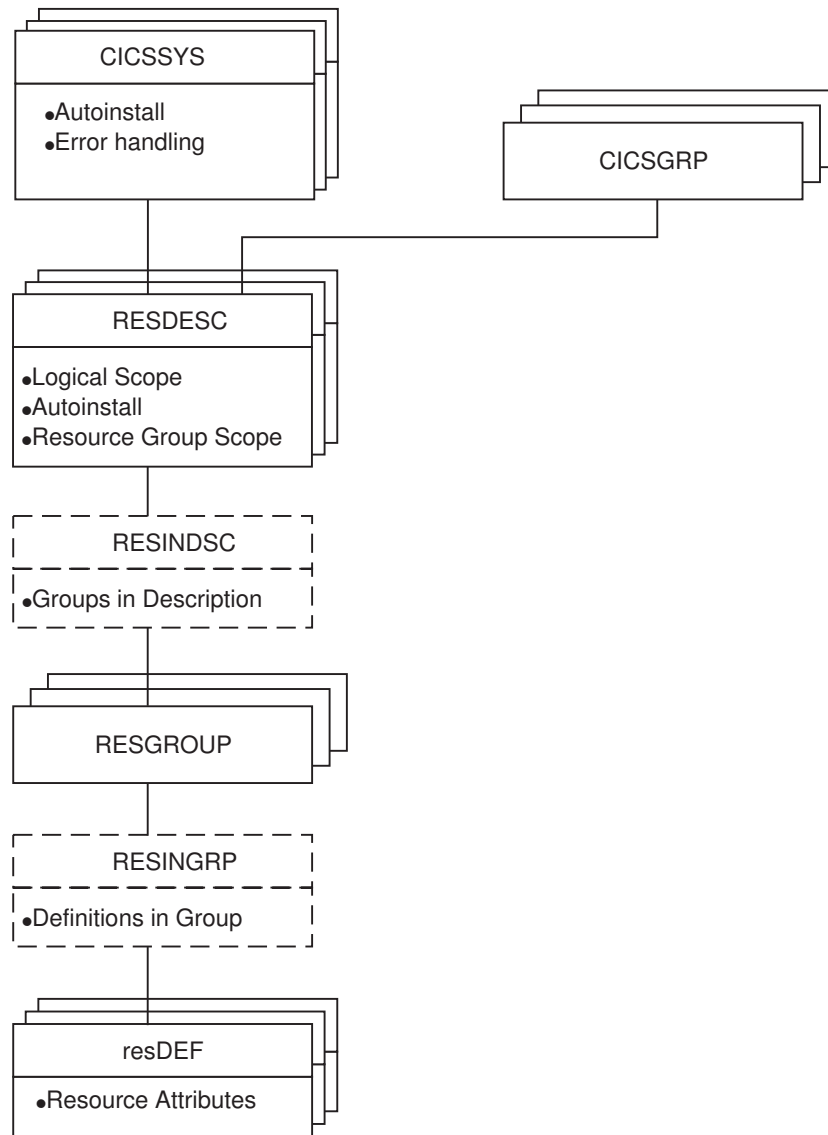
Figure 1. Views for managing CICS resources - a simple approach

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

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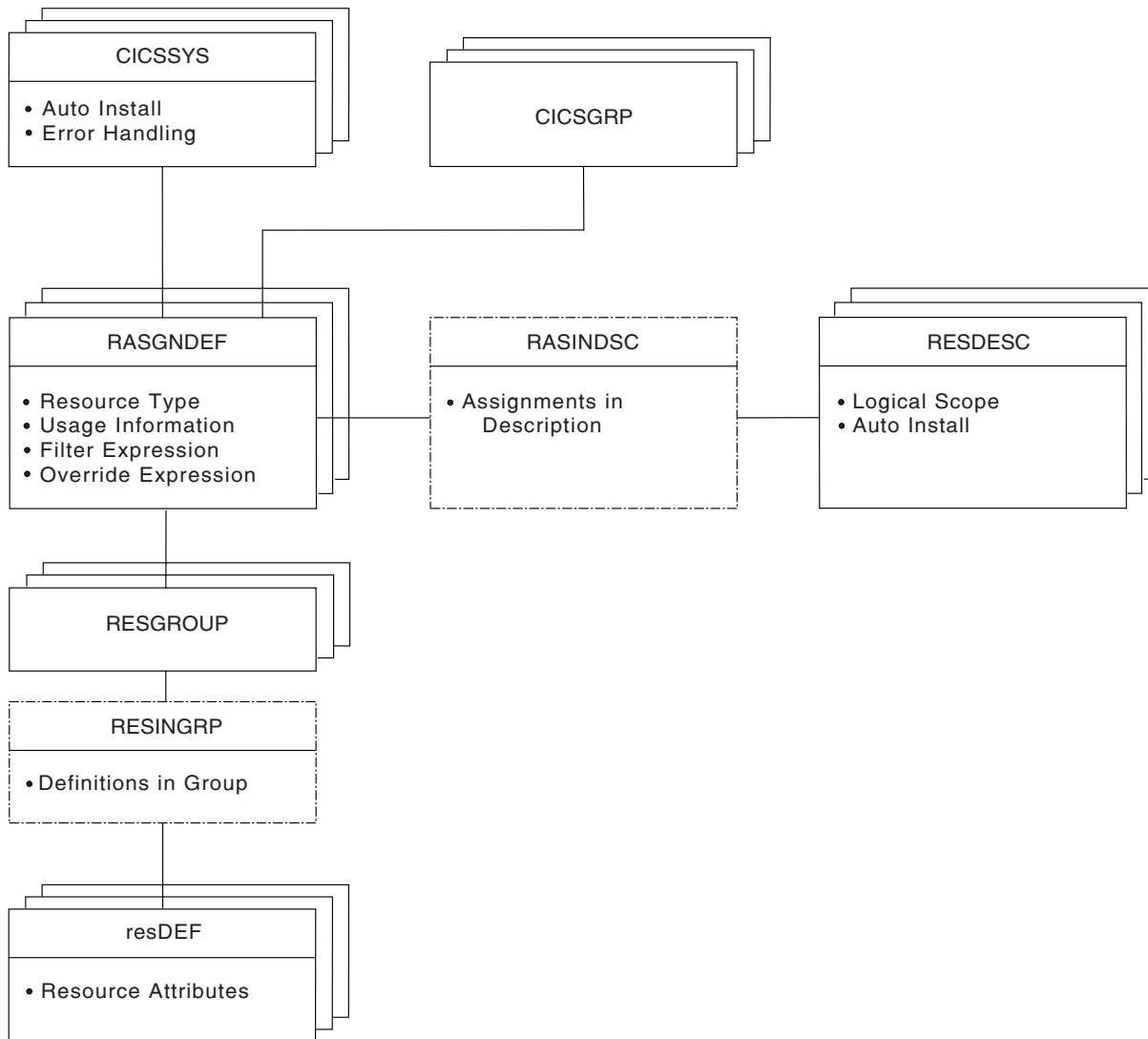
Figure 2. Views for managing CICS resources - a selective approach

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

Process display objects

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

RASPROC

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

RDSCPROC

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

SYSRES

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

Connectivity objects

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

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.

SYSLINK

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

The end-user interface views for all of the administration objects except CICSSYS are described in "Chapter 7. Administration views" on page 245. The CICSSYS view is described in the *CICSPlex SM Administration* book.

CEDA and BAS adminstrative functions

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

Table 2. CEDA and BAS adminstrative functions

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

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

BAS security considerations

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

BAS.DEF

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

BAS.resource

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

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

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

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

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

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

Chapter 2. Defining CICS resources to CICSPlex SM

This chapter describes how to use Business Application Services (BAS) to define your CICS resources to CICSPlex SM. It includes the following sections:
- "A resource definition comparison"
- "Creating resource definitions" on page 13
- "Creating sets of resource definitions" on page 18
- "Deciding how to manage your CICS resources" on page 22
- "How CICSPlex SM validates resource definitions" on page 24
- "Migrating your RDO definitions to CICSPlex SM" on page 29
- "Using logical scopes to control application resources" on page 32

A resource definition comparison

The primary method provided by CICS for defining resources to CICS systems is the resource definition online (RDO) facility. This model is based on nested lists: definitions are tied to a single group and groups are processed sequentially from a group list. One result of these nested lists is that duplicate definitions found later in the process override any earlier ones. In addition, the very nature of the definitions that RDO requires and the extent to which they are available to multiple CICS systems can prove limiting. The RDO model has several disadvantages in a CICSplex environment:

- The need for duplicate resource definitions across CICS systems, unless the CSD is shared.
- The limitations on sharing resource definitions in a CICSplex.
- The need to define each system in a communications network, rather than the connectivity information that links them.

By extending this model, CICSPlex SM Business Application Services enables you to implement RDO-like resource definition and association across the entire CICSplex.

CICSPlex SM uses sets of definitions that can be reused and associated with any number of other definitions or CICS systems. Duplicate definitions are retained and assigned version numbers, so that variations of a resource can coexist in the CICSplex. In addition, CICSPlex SM considers CICS resources to be independent of any given group or CICS system; rather, they exist at the CICSplex level. You describe to CICSPlex SM all the attributes of a given resource, including both local and remote values. CICSPlex SM can determine the correct subset of attributes to be used when the resource is actually assigned to a particular CICS system.

The Business Application Services approach offers several advantages over RDO:
- A familiar, RDO-like definition process with a choice of interfaces (batch, API, or ISPF.
- A common definition repository for all CICS systems in the CICSplex, across all supported CICS platforms.
- A reduction in the number of redundant definitions, with the ability to reuse definitions and override individual attributes as needed.

Figure 3 illustrates the similarities between the basic Business Application Services approach and RDO.

a resource definition comparison
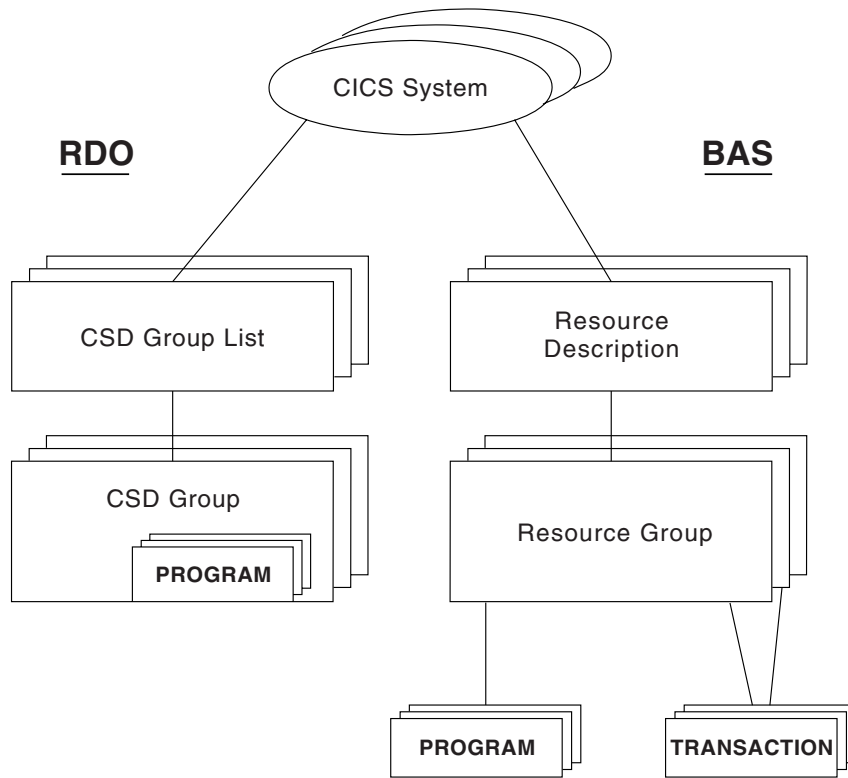
Figure 3. A comparison of resource definition using BAS and RDO

In the basic BAS approach, a resource group's role is similar to that of a CSD group. However, in the BAS model, resource definitions are independent objects that can be used, reused, and associated with more than one resource group as needed. Likewise, resource descriptions are similar to CSD group lists in some ways.

Figure 4 on page 13 illustrates the complete BAS model where resource assignments are used to qualify the contents of resource groups and descriptions and control the assignment of resources to CICS systems.
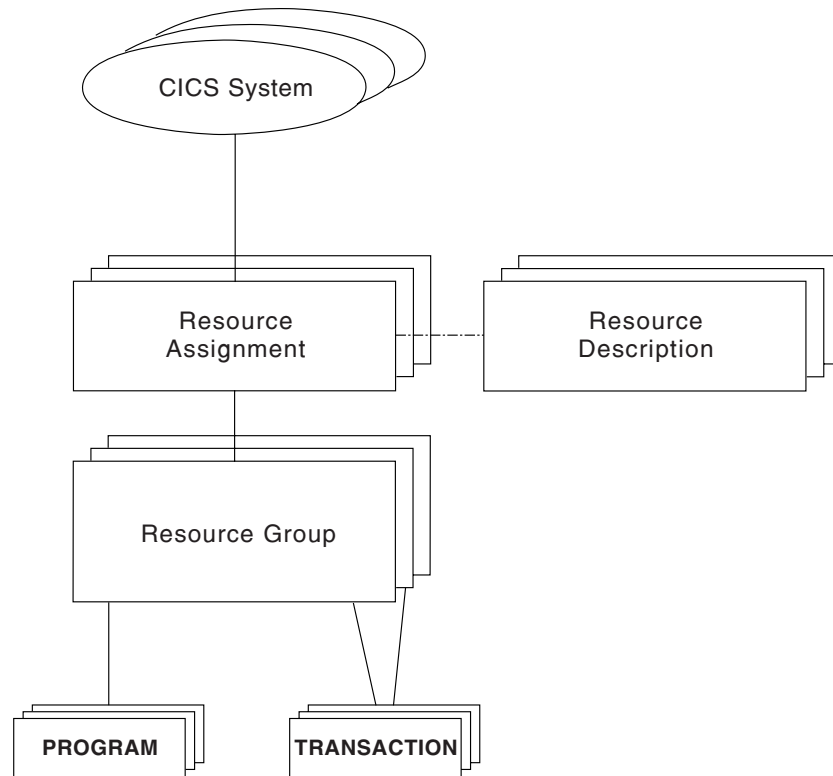
Figure 4. The complete BAS resource definition model

Creating resource definitions

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.

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

You create resource definitions by using the CREate action command from a resource definition view. For example, to create a connection definition, you would:

1. Display the CONNDEF view.
2. Issue the CREate primary or line action command.
3. Specify the attributes of the connection on the Create Connection Definition panels.

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 3. Installing CICS resources" on page 35.

For a complete description of the CICSPlex SM resource definition views, see "Chapter 6. Resource definition views" on page 67.

Creating multiple versions of a resource definition

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

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

Updating 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:
- Using the update (UPD) action command to update the attributes of an individual resource definition
- Using the alter (ALTER) action command to update common attributes of multiple resource definitions

Using the UPD action command
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).

Note: You cannot change the Name field or the Version field when you update a resource definition.

Using the ALTER action command

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.

For a complete description of the ALTER action command, see "Altering multiple resource definitions" on page 73.

Defining links between CICS systems

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

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

CICS System A
    CICS System B

CONNECTION(SYSB)...
> CONNECTION(SYSA)...

SESSION(S0AB)...
> SESSION(S0BA)...

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

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

Figure 5 illustrates the resource definitions that are required for CICSPlex SM to interconnect three CICS systems. In this example, the total number of definitions is five, rather than the 12 definitions that would be required by RDO.
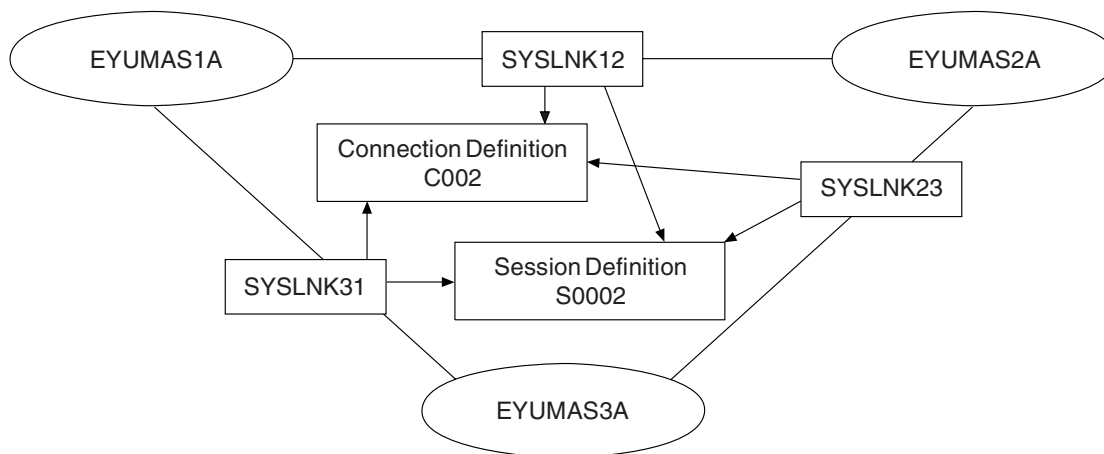
Figure 5. An example of defining communication links

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

1. Define the CICS systems to CICSPlex SM.

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

2. Define the connections and sessions.

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

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 6 provides an overview of the end-user interface views used to define links between CICS systems.
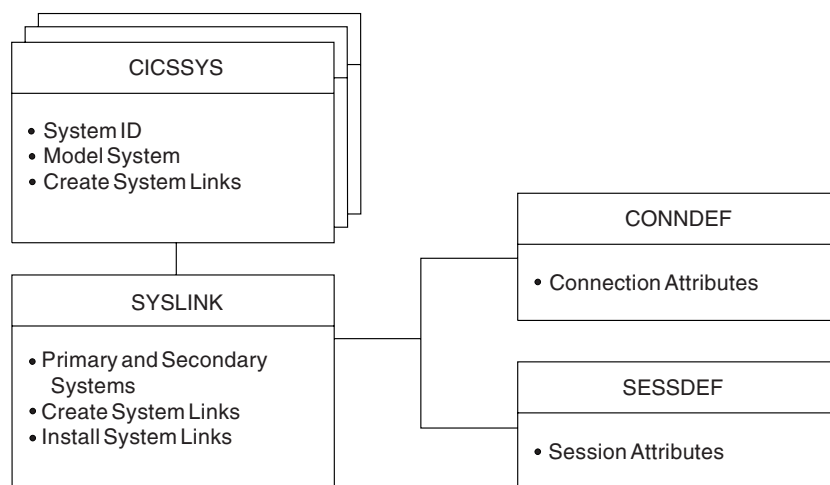
Figure 6. Views for defining links between CICS systems

Creating sets of resource definitions

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 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 111.

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.

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 "RASGNDEF (Resource assignments)" on page 247. For information on using resource assignments to manage CICS resources, see "Controlling resources by resource assignment" on page 22.

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 "RESDESC (Resource descriptions)" on page 262. For information on using resource descriptions to manage CICS resources, see "Controlling resources by resource description" on page 22.

Deciding how to manage your CICS resources

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
- By resource assignments in conjunction with resource descriptions

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 CICSplex.

Once you have gathered resource definitions into resource groups, you can use resource assignments to:
- Control resources of a given type in a given group. Each resource assignment applies to one type of resource (such as files) in one resource group.

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

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

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

    Use the 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.

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.

In fact, the remote system ID in the resource definition is not used by the resource assignment. CICSPlex SM uses the actual system ID of the CICS system you identify as the related system. That is, the resource is assigned to the related system named in the assignment, regardless of what remote system ID is in the resource definition.

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

How CICSPlex SM validates resource definitions

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

Checking 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 guidlines.

Interdependent resource attributes

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

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

Release-specific resource attributes

Because a resource may be used by a number of CICS systems, you can specify the whole range of possible attributes when you define the resource

to CICSPlex SM. However, when that resource is installed in a given CICS system, CICSPlex SM checks for and uses only those attributes that are appropriate to the release of CICS. CICSPlex SM keeps track of obsolete resource attributes from earlier releases of CICS just as RDO does.

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

Note: CICSPlex SM attempts to validate attribute values in such a way that the resource definition can be used with as many levels and platforms of CICS as possible. However, because of the wide variety and interdependency of resource attributes across releases of CICS, CICSPlex SM may not be able to catch all potential attribute conflicts. So even if CICSPlex SM does not detect a problem, a particular release of CICS may fail a given resource installation request. For information on resource installation problems, see "How installation errors are handled" on page 40.

Checking 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 the description of DB2EDEF on page "DB2EDEF (DB2 entry definitions)" on page 99). 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 247. 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.

how CICSPlex SM validates resource definitions

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 7 is displayed.

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


C System
- --------
_ EYUMAS1A

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

Figure 7. A list of CICS systems with inconsistent set errors

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

When you press Enter, the list of inconsistent resource set errors for the first CICS system you selected is displayed. Figure 8 shows a sample list of inconsistent resource set errors.

```
COMMAND ===>                                              Scroll ==> PAGE
Errors found for  EYUMAS1A


        ResName  Ver Resgroup Assignmt Descript Usage  SysGroup SysType Ovr
-------- -------- --- -------- -------- -------- ------ -------- ------- ---
TRANDEF  ET01      1  EYUBAG02 EYUBAA01 New def  LOCAL           TARGET  NO
EXISTING ET01      1  EYUBAG02 EYUBAA01 Old def  ASIS            TARGET  NO

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

Figure 8. 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 8 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 8 shows a list of the resource pairs (candidate and existing) that are in conflict. The following information is provided for each pair:

ResType
> The type of resource.

ResName
> The name of each resource.
>
> In most cases, the names of the candidate and existing resources are the same. However, in the case of remote resources (where the SysType field shows RELATED), it is possible that the conflict is between resource aliases

or a real name and an alias in the same CICS system. In that case, the ResName may actually be different for the candidate and existing resources.

Ver   The version of each resource.

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

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

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

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

> **LOCAL**
>> A resource that resides in the target CICS system.
>
> **REMOTE**
>> A resource that is defined to the target system, but resides in a different system.
>
> **ASIS** A resource that is part of a resource group directly associated with a resource description (via a RESINDSC definition); it is not associated with an assignment.

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

SysType
> The type of CICS system to which the candidate or existing resource is being assigned:
>
> **TARGET**
>> The CICS system in which a local resource actually resides.
>
> **RELATED**
>> The CICS system in which a resource defined as remote to one system actually resides.

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

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

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

Checking 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

how CICSPlex SM validates resource definitions

- 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 9 is displayed.

```
COMMAND ===>                                              Scroll ==> PAGE


Target   Target   Target   Related  Related  Related  Cicsname Error Code
Scope    Assignmt Descript Scope    Assignmt Descript
-------- -------- -------- -------- -------- -------- -------- ----------------
EYUCSG01 EYUBAA02          EYUMAS1A EYUBAA02          EYUMAS1A CicsName in Both
EYUCSG01 EYUBAA02          EYUMAS1B EYUBAA02          EYUMAS1B CicsName in Both
EYUCSG01 EYUBAA02          EYUMAS2A EYUBAA02          EYUMAS2A CicsName in Both


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

Figure 9. A list of inconsistent scope errors

The title of this panel indicates what you were trying to do when CICSPlex SM detected scope inconsistencies. For example, the title in Figure 9 is "Update RASGNDEF Errors". That means changes you made when updating a resource assignment resulted in the inconsistent scope errors.

The remainder of Figure 9 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.

> **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.

Migrating your RDO definitions to CICSPlex SM

Moving to an environment where CICSPlex SM manages your CICS resource definitions involves the following steps:

1. Make the existing resource definitions in your CSD files available to CICSPlex SM. For this step, use the DFHCSDUP EXTRACT command and the CICSPlex SM extract routine EYU9BCSD.
2. Associate the resource definitions directly with CICS systems. Resource descriptions are the key to this step.
3. Assign and manage the resource definitions more selectively. Resource assignments complete the transition.

Using the extract routine EYU9BCSD

To take full advantage of Business Application Services, the resources in your CICSplex must be defined to CICSPlex SM. Of course, definitions for existing resources can already be found in your CSD files. So CICSPlex SM provides a migration facility designed to convert CSD records into resource definitions that can be used by Business Application Services. This facility can significantly reduce the initial work involved in defining resources to CICSPlex SM.

The migration facility consists of an exit routine that extracts records from existing CSD files. The exit routine uses the EXTRACT command of the CICS offline utility

DFHCSDUP to read CSD records. You can extract some or all of the records from one or more CSD files at a time. CICSPlex SM generates a resource definition for each selected resource.

If there are multiple instances of the same resource in your CSD files, CICSPlex SM generates multiple resource definitions, giving each a unique version number. Keep in mind, however, that CICSPlex SM does not process duplicate definitions in the same way as RDO. You can maintain different versions of a resource for different purposes, but CICSPlex SM does not allow more than one version of the same resource to be assigned to a resource group or CICS system. As you extract resource definitions from your CSD files, you should review the use of duplicate definitions and consider deleting those that are no longer required.

The extract routine EYU9BCSD can also generate resource groups and associations between resources and resource groups. You control what resource groups are generated and how they are named. You can tell CICSPlex SM to:

- Generate a resource group for each CSD group being processed, using the existing GROUP names.
- Generate a single resource group from all the CSD groups being processed, using a name you specify.

Once the CSD records are extracted, they are converted to CICSPlex SM resource definition records that you can use as input to the batched repository-update facility.

Figure 10 illustrates how the extract routine EYU9BCSD can be used to migrate definitions from the CSD to the CICSPlex SM data repository.
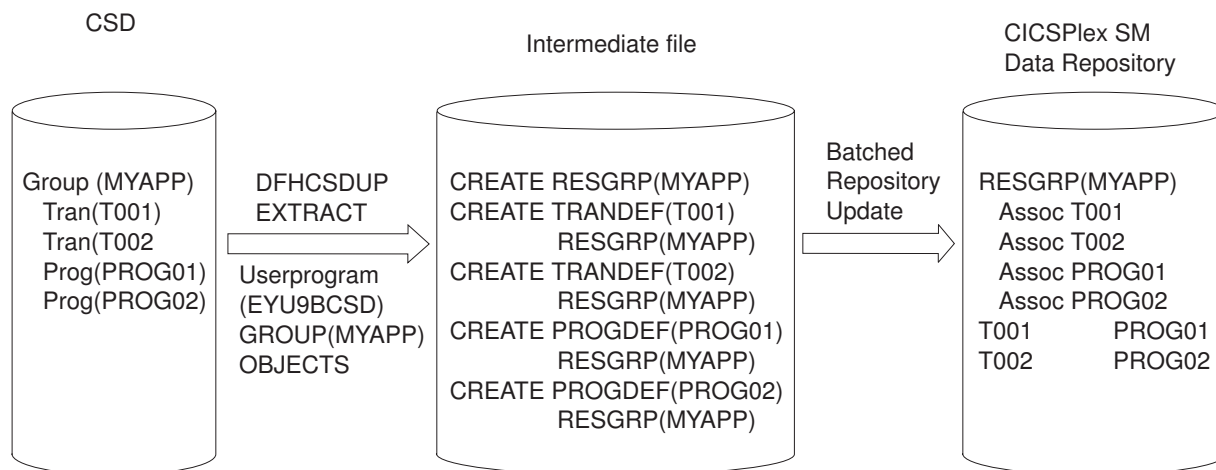
Figure 10. Migrating resource definitions from the CSD to CICSPlex SM

For complete information on the CICSPlex SM extract routine EYU9BCSD, see "Appendix. Extracting records from the CSD" on page 295.

Using resource descriptions

You can use resource descriptions (RESDESC) to ease the transition from your CSD files to the CICSPlex SM data repository. Once you have extracted your existing CSD records and added them to the data repository using the batched repository-update facility, you can begin to associate the resources with CICS systems.

The simplest approach is to recreate your existing CSD environment on CICSPlex SM. To do this, you could:

1. Use EYU9BCSD to generate resource groups (RESGROUP) with the same names as your existing CSD groups and associate the resources with those groups.

2. Associate those resource groups with a single resource description (RESDESC) to create resource group-in-description records (RESINDSC).

3. Associate the resource description with one or more CICS systems by specifying a ResGroup Scope value.

In this situation, the resource description is analogous to a CSD group list. All of the resources in the named resource groups are processed as is, without any filtering of resources or overriding of attributes. You have in effect recreated a static version of your CSD groups in the CICSPlex SM data repository. Initially, you may want to process your resources in this way to establish a baseline environment in CICSPlex SM.

Note: CICSPlex SM does not allow more than one version of the same resource to be assigned to a resource group or CICS system. If any of your CSD groups include duplicate resource definitions and those definitions are supplied as input to the CICSPlex SM batched repository-update facility, the resource set is considered inconsistent. For information about inconsistent resource set errors, see "Checking a set of resources" on page 25.

Using resource assignments

Resource assignments add a significant degree of flexibility and precision to the management of the resources in your CICSplex. Creating resource assignments (RASGNDEF) and associating them with a resource description enables you to:

- Select a specific set of resources for a given CICS system. You can select resources that have certain attributes or specific versions of resources.

- Define specific attribute values that should be used for the resource in a given CICS system. These attributes override the standard attributes as specified in the resource definition.

- Assign local and remote instances of the same resource to different CICS systems with a single definition.

Once there are resource assignments associated with a resource description, it no longer functions like a CSD group list. The resource description becomes, in effect, a user-defined, logical set of resources, such as an application. You might have several different resource descriptions associated with a given CICS system, each one representing a different set of resources.

As you move towards processing your resource definitions more selectively, you should remove resource groups from direct association with a resource description and identify them instead in one or more resource assignments. For each resource group:

1. Remove the association between the resource group and resource description from the RESINDSC view.

2. Create (or update) resource assignments to include the resource group name and the target and related scopes for those resources.

3. Review and update the underlying resource definitions to fit the new resource assignment process.

   You should review resources that were previously represented by multiple definitions (such as local and remote) and combine the variations into a single

resource definition. For example, a resource definition that was previously associated directly with one CICS system might require additional attributes before it can be assigned as both a local and remote resource in different CICS systems. But once you have updated the primary resource definition to include remote attributes, you can delete the old remote definition.

4. When you have completed the above steps for each resource group, you may, though this is not essential, clear the ResGroup Scope field in the resource description. It is then obvious from the resource description that you are using logical scoping rather than resource group scoping.

For more information on using resource assignments, see "Controlling resources by resource assignment" on page 22.

Note: You can use the same resource description to manage both whole resource groups (via RESINDSC and the ResGroup Scope field) and selected resources identified in resource assignments.

Using logical scopes to control application resources

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

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

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

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

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

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

- If you want to further qualify the set of resource definitions, associate the resource description with a resource assignment (RASGNDEF).

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

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

using logical scopes

Chapter 3. Installing CICS resources

This chapter describes how you can use Business Application Services (BAS) to install resources. Systems must be running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, or CICS for OS/2 Release 3.1 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 OS/390 Installation Guide*.

2. There are special considerations when arranging for activation of a DB2 connection via a a DB2CDEF definition. For details, see the *CICS Transaction Server for OS/390 Installation Guide*.

3. It is not possible to install journal definitions (JRNLDEF).

4. 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.

5. Enqueue models forming nested generic enqueue names must be installed either in the disabled state or in order, from the most specific (for example, ABCD) to the least specific (for example, AB*). You can install disabled enqueue models in any order, but you must enable them in order from most specific to least specific. For more information, see "Installing enqueue model definitions" on page 113.

6. Only FEPI resources are installable on CICS for OS/2 Release 3.1 systems.

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.

This chapter includes the following sections:
- "Installing resources automatically"
- "Installing resources dynamically" on page 36
- "Deciding where resources should be installed" on page 39
- "How installation errors are handled" on page 40

Installing resources automatically

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

installing resources automatically

- 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.

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).

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

Installing resources dynamically

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

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

Notes:

1. The maintenance point CMAS for the CICSplex must be active when you attempt to install resources dynamically. If the maintenance point is not available, the installation request fails.

2. You cannot dynamically install session definitions (SESSDEF). They are installed when you install the associated connection definitions (CONNDEF).

To dynamically install resources in one or more running CICS systems, you can issue the install action command (INS) from the following end-user interface views:

Resource definition (xxxxDEF)

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.

Resource group (RESGROUP)

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.

Resource description (RESDESC)

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.

System link (SYSLINK)

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. For details on installing CICS system links, see "SYSLINK (System links)" on page 285.

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. 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 can ask CICSPlex SM to check the following:

Are all of the CICS systems currently active?
CICSPlex SM cannot install resources into a CICS system that is not running. If you request INACTIVE checking when you install resources, 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.

If you do not request INACTIVE checking, CICSPlex SM does not warn you about CICS systems that are not currently active.

Do all of the CICS systems support resource installation?
CICSPlex SM can only install resources into CICS systems that support the EXEC CICS CREATE command. If you request RELEASE checking when you install resources, CPSM checks that the CICS system is at the appropriate 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.

If you do not request RELEASE checking, CICSPlex SM does not warn you about CICS systems that do not support resource installation.

What is the operational state of any existing resources?
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.

If you request a state check when you install resources, 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 "How installation errors are handled" on page 40.

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
- Install a resource description
- Replace a resource description

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.

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).

In order to install resources either automatically or dynamically, you need to tell CICSPlex SM which CICS systems they should be installed into and how they will be used:

Target Scope

Identify the CICS system or CICS system group where the resources should be installed. These CICS systems are the primary target for resource installation. You tell CICSPlex SM whether a given resource is local or remote to the target CICS systems by specifying a Usage value. A Target Scope value is required for all types of resource definitions.

Related Scope

Identify a single CICS system where resources identified as remote to a target CICS system should be installed as local resources.

If a resource has a remote name, that name is used when installing the resource in the related system. Otherwise, the local name (that is, the name of the resource definition) is used in both the target and related systems.

A related scope value is valid only for the following resources and only when they have a Usage value of REMOTE:

FILEDEF
PROGDEF
TDQDEF
TRANDEF

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 Indicate whether the resources are local or remote to the target CICS

systems. Local resources are installed only in those CICS systems identified in the Target Scope. Remote resources are installed in both the target and related CICS systems; they are installed as remote resources in the target systems and as local resources in the related systems.

There are many ways to control the target and related scopes for the resources you want to install. When you install a single resource or a group of resources manually, it is a one-time request; none of the options you specify are saved for reuse. So you have to identify the CICS systems directly each time you issue such an install request. On the other hand, if you create resource assignments and descriptions to control the installation process at your enterprise, you can identify the target and related scopes you use most frequently and override them as needed.

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.

How installation errors are handled

CICSPlex SM attempts to install all of the resources you identify, but sometimes conditions in the CICSplex prevent the installation process from completing successfully. When installation problems occur, CICSPlex SM provides detailed information about the errors. How that information is presented depends on whether the resources were being installed automatically or dynamically.

When resources are installed automatically

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.

When resources are installed dynamically

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 11 is displayed.

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


C System
- --------
_ EYUMAS1A

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

Figure 11. 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. 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 installation errors for the first CICS system you selected is displayed. Figure 12 on page 42 shows a sample list of resource installation errors.

how installation errors are handled

```
COMMAND ===>                                               Scroll ==> PAGE
Errors found for  EYUMAS1A


Resource Res Resource     Error Code     EIBFN Resp1 Resp2 Resp2
  Name   Ver  Type                                   Hi    Lo
-------- --- -------- ---------------- ----- ---- ---- ----
EYU9XLEV  1  PROGDEF  Install Failure  3002  10   31   500

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

Figure 12. 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 jog and CMAS EYULOG for further information.

Not Authorized

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

Not Forced

An attempt to install the specified resource in the specified CICS system failed because the same resource already exists in the CICS system and Force Install is set to NO.

Not Supported

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

Status Failure

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

System State

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

EIBFN

The code that identifies the last CICS command issued by the task. For a list of valid codes, see *CICS Application 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*.

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

Attention: Once you exit the list of CICS systems that experienced installation errors, that list is deleted and cannot be recreated.

how installation errors are handled

Chapter 4. Example tasks: Business Application Services

This chapter includes examples of some typical Business Application Services tasks.

- The example "Establishing CICSplex connectivity" shows how to establish connectivity between the CICS systems in a CICSplex.
- The example "Defining resources for an application" on page 49 shows how to define an application to CICSPlex SM by creating resource definitions and assigning them to CICS systems.
- The examples in "Installing CICS resources dynamically" on page 58 show a variety of ways to install resources dynamically into active CICS systems.

Keep in mind that each of these examples illustrates one way in which the task could be accomplished. In some cases, certain steps could be performed in a different order to accomplish the same result.

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
 RESGROUP    ===>
 User Data   ===>

 AccessMethod ===> VTAM       Access Method (VTAM, INDIRECT, IRC, XCF, XM,
                                NETBIOS, TCPIP)
 Attachsec   ===> LOCAL      Attach-time security
                              (LOCAL,IDENTIFY,MIXIDPE,PERSISTENT,VERIFY)
 AutoConnect ===> 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.
```

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

```
 26MAR1999 17:15:06 ---------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                         SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
 W1 ==CONNDEF========EYUPLX01=EYUPLX01==26MAR1999==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            ===> S0001       Version ===> 0
 Description     ===> ISC Session
 RESGROUP        ===>
 User Data       ===>

 Protocol        ===> APPC        Intercommunication link protocol
                                     (APPC, EXCI, LU61, NOTAPPLIC)
 Maximum         ===> 8    ,      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:

```
----------- Create Session Definition for EYUPLX01 Page 2 ---------------------
COMMAND  ===>
 Name               S0001       Version ===> 0

 SessName        ===>             Session ID
 Session priority ===> 0          Session priority (0-255, blank)
 Userid          ===>             Signon and security userid
 Inservice       ===> N/A         Session in communication (YES, NO, N/A)
 Build Chain     ===> YES         Chain assembly required (YES, NO)
 Relreq          ===> NO          Release logic unit (YES, NO)
 Discreq         ===> NO          Disconnect request (YES, NO)
 Userarealen     ===> 0           User area size (0-255, blank)
 Ioarea Length   ===> 0    , 0    Terminal I/O area (0-32767, blank)
 NEP class       ===> 0           NEP transaction class (0-255, blank)
 Transaction     ===>             Device initiated transaction
 Recov Option    ===> SYSDEFAULT  CICS recovery using XRF
                                    (SYSDEFAULT, CLEARCONV,
                                     RELEASESESS, UNCONDREL, NONE)
 Recov Notify    ===> N/A         XRF takeover notify
                                    (NONE, MESSAGE, TRANSACTION, N/A)


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

e. Press Enter. The ISC session definition is created and the SESSDEF view is
   redisplayed:

```
26MAR1999 17:15:17 ---------- INFORMATION DISPLAY -----------------------
COMMAND  ===>                                          SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 ==SESSDEF========EYUPLX01=EYUPLX01==26MAR1999==17:15:17=CPSM======1==
CMD Name    Ver  Created       Changed          Description
--- ------- --- ------------  ------------  ------------------------
    S0001     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:

```
  26MAR1999 17:19:23 ---------- INFORMATION DISPLAY -----------------------
  COMMAND  ===>                                            SCROLL ===> PAGE
  CURR WIN ===> 1          ALT WIN ===>
   W1 =SYSLINK==========EYUPLX01=EYUPLX01=26MAR1999==17:19:23=CPSM======1==
  CMD Primary   Secondary  ConnDef   Ver  SessDef   Ver
  --- --------  ---------  --------  ---  --------  ---
      EYUMAS1A  EYUMAS1B   C001        1  S0001       1
```

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
   CICSplex.

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 OS/390 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
 Twasize      ===> 0         Transaction work area size (0-32767, blank)
 Profile      ===> DFHCICST  Profile definition name
 Partitionset ===>           Application partition set (name, KEEP, OWN)
 Status       ===> ENABLED   Transaction status (ENABLED, DISABLED)
 Taskdataloc  ===> BELOW     Task storage location (BELOW, ANY)
 Taskdatakey  ===> USER      Task storage key (USER, CICS)
 Storageclear ===> NO        Clear task life-time storage (YES, NO)
 Runaway      ===> SYSTEM    Max tasktime (SYSTEM, 0-2700000, blank)
 Shutdown     ===> DISABLED  Status during shutdown (DISABLED, ENABLED)
 Isolate      ===> YES       Isolate user storage (YES, NO)


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

defining resources for an application

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 ===> 1A3A      SYSIDENT for Remote System
 Trprof      ===> DFHCICSS   Transaction routing profile name
 Localq      ===> NO         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:

```
--------------- Create Program Definition for EYUPLX01 -------------------
COMMAND  ===>
 Name          ===> EYUWLMVP  Version ===> 0
 Description   ===> SSET - Workload IVP Definition
 RESGROUP      ===> EYUBAG01
 User Data     ===>

 Language      ===> ASSEMBLER (ASSEMBLER, C, COBOL, LE370, PLI, RPG, N/A)
 Reload        ===> NO        New copy of program loaded (NO, YES)
 Resident      ===> NO        Residence status (NO, YES)
 Usage         ===> NORMAL    Storage release (NORMAL, TRANSIENT)
 Uselpacopy    ===> NO        Program used from LPA (NO, YES)
 Status        ===> ENABLED   Program status (ENABLED, DISABLED)
 Cedf          ===> YES       CEDF available (YES, NO)
 Datalocation  ===> BELOW     Data location (BELOW, ANY)
 Execkey       ===> USER      Program key (USER, CICS)
 Executionset  ===> FULLAPI   Program run mode (FULLAPI, DPLSUBSET)
 Remotesystem  ===>           CICS region for shipped DPL request
 Remotename    ===>           Program name in remote CICS region
 Transid       ===>           Tranid for remote CICS to attach
 Rsl           ===> 0         Resource security value (0-24,PUBLIC,blank)
 Dynamic       ===> NO        Dynamic routing (NO, YES)
 Concurrency   ===> QUASIRENT Concurrency (N/A, QUASIRENT, THREADSAFE)
 JVM           ===> NO        Java Virtual Machine (NO, YES, DEBUG)
 JVMClass                     Java Virtual Machine Class
               ===> 012345678901234567890123456789012345678901234567890
               ===> 012345678901234567890123456789012345678901234567890
               ===> 012345678901234567890123456789012345678901234567890
               ===> 012345678901234567890123456789012345678901234567890
               ===> 012345678901234567890123456789012345678901234567890

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

    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 ===>
 Name          ===> EYUFIL01     Version  ===> 0
 Description   ===> Payroll Updates - Local
 RESGROUP      ===>
 User Data     ===>

 VSAM PARAMETERS
 Dsname                          Data set name
               ===> PAYROLL.EUTL3
               ===>

 Password      ===>              User access password
 Rlsaccess     ===> NO           CICS opens files in RLS mode (YES,NO)
 Lsrpoolid     ===> 1            Local shared resource pool (1-8, NONE, blank)
 Readintegrity ===> UNCOMMITTED  Read level (UNCOMMITTED,CONSISTENT,REPEATABLE)
 Dsnsharing    ===> ALLREQS      Dataset sharing (ALLREQS,MODIFYREQS)
 Strings       ===> 30           Concurrent file requests (1 - 255, blank)
 Nsrgroup      ===>              Group name for VSAM data set

 Press ENTER to update FILEDEF.
 Press UP or DOWN to view other screens
 Enter END or CANCEL to cancel wthout creating.
```

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

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

REMOTE ATTRIBUTES
 Remotename   ===>              Remote file name
 RemoteSystem ===>              SYSIDENT for Remote System
REMOTE AND CFDATATABLE PARAMETERS
 Recordsize   ===>              Record size (1 - 32767, blank)
 Keylength    ===>              Key length (1 - 255, blank)
                                      (1 - 16 for CF Tables)
INITIAL STATUS
 Status       ===> ENABLED      Status (ENABLED,DISABLED,UNENABLED)
 Opentime     ===> FIRSTREF     Open time (FIRSTREF, STARTUP)
 Disposition  ===> SHARE        File disposition (SHARE, OLD)
NSR BUFFERS
 Databuffers  ===> 31           Number of data buffers (2-32767, blank)
 Indexbuffers ===> 30           Number of index buffers (1-32767, blank)


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

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        ===> NO          Data table type (NO, CICS, USER, CF)
  Maxnumrecs   ===> NOLIMIT     Max entries in data table ...
                                     (NOLIMIT or 1-99,999,999)
 CFDATATABLE PARAMETERS
  Cfdtpool     ===>             Name of coupling facility data table pool
  Tablename    ===> IANSFILE    Data table name
  Updatemodel  ===> LOCKING     Update model (LOCKING or CONTENTION)
  Load         ===> NOLOAD      Whether this file loads table (LOAD or NOLOAD)
 RECORD FORMAT
  Recordformat ===> VARIABLE    Record format (VARIABLE, FIXED)

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

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

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

 OPERATIONS
  Add           ===> YES           Records can be added to file (YES,NO)
  Browse        ===> YES           Records retrieved sequentially (YES,NO)
  Delete        ===> YES           Records can be deleted (YES,NO)
  Read          ===> YES           Records can be read (YES, NO)
  Update        ===> YES           Records can be updated (YES,NO)
 AUTO JOURNALLING
  Journal       ===>               Journal number (NO, 1-99, blank)
  Jnlread       ===> NONE          Read ops in jrnl (NONE,ALL,READONLY,UPDATEONLY)
  Jnlsyncread   ===> NO            Auto journaling for read (YES,NO)
  Jnlupdate     ===> NO            Rewrite/Delete oprs record on jrnl (YES,NO)
  Jnladd        ===> NONE          Add ops recorded on jrnl(NONE,AFTER,ALL,BEFORE)
  Jnlsyncwrite  ===> NO            Auto journaling for write (YES,NO)


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

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)
  Fwdrecovlog   ===>               Journal Name used for recovery (NO, 1-99,
                                   blank)
  Backuptype    ===> STATIC        CICS VSAM file backup type (STATIC,DYNAMIC)
 SECURITY
  Ressecnum     ===>               Resource security value (0-24,PUBLIC,blank)



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

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

  VSAM PARAMETERS
  Dsname                          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 wthout 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:
    Remotename
    Databuffers
    Indexbuffers

as shown here:

```
COMMAND ===>
  Name              EYUFIL02    Version  ===> 0

  REMOTE ATTRIBUTES
  Remotename   ===>             Remote file name
  RemoteSystem ===>             SYSIDENT for Remote System
  REMOTE AND CFDATATABLE PARAMETERS
  Recordsize   ===>             Record size (1 - 32767, blank)
  Keylength    ===>             Key length (1 - 255, blank)
                                          (1 - 16 for CF Tables)
  INITIAL STATUS
  Status       ===> ENABLED     Status (ENABLED,DISABLED,UNENABLED)
  Opentime     ===> FIRSTREF    Open time (FIRSTREF, STARTUP)
  Disposition  ===> SHARE       File disposition (SHARE, OLD)
  NSR BUFFERS
  Databuffers  ===>             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  ===>

 Name               ===> EYUBAA01
 Description        ===> SSET - Assign Transaction Defs

 Target Scope       ===> EYUMAS1A    CICS System or System Group
 Related 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  ===>

 Name               ===> EYUBAA02
 Description        ===> SSET - Assign Program Defs

 Target Scope       ===> EYUCSG03    CICS System or System Group
 Related Scope      ===>             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               ===>             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 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

target and related scopes to which they apply. You already provided this information in the resource assignments you created.

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 EUPLX01 ------------------
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.

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

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:

```
26MAR1999 11:30:30 ---------- INFORMATION DISPLAY ----------------------
COMMAND  ===>                                            SCROLL ===> PAGE
CURR WIN ===> 1         ALT WIN ===>
 W1 ==PROGDEF=========EYUPLX01=EYUPLX01=26MAR1999==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
```

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.
```

   c. Press Enter. The program EYUWLMVP is installed in EYUMAS2A and the PROGDEF view is redisplayed.

Installing resources from a resource group

This example installs the programs defined in a given resource group into an active CICS system.

1. Display a list of the resource groups defined to CICSPlex SM.

   a. From the current view, issue the command RESGROUP. The RESGROUP view is displayed, as shown here:

```
26MAR1999 19:33:51 ------------ INFORMATION DISPLAY --------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =RESGROUP==========EYUPLX01=EYUPLX01=26MAR1999==19:33:51=CPSM==========4===
CMD Name     Description                     Restype  ResVer Pattern
--- -------- ----------------------------    -------- ------  --------
    EYUBAG01 SSET - WLM IVP Application
    EYUBAG02 SSET - CPU Only Application
    EYUBAG05 SSET - Autoinst Programs
    EYUBAG06 SSET - Common Defs
```

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:

installing CICS resources dynamically

```
26MAR1999  19:33:51 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1       ALT WIN ===>
 W1 =RESDESC==========EYUPLX01=EYUPLX01=26MAR1999==19:33:51=CPSM==========4===
CMD Name       Scope  Scope      Description
--- --------   -----  Name----   ----------------------------
    EYUBAD01   YES    WLMIVP     SSET - WLM IVP Application
    EYUBAD02   YES    CPUONLY    SSET - CPU Only Application
    EYUBAD05   YES    COMMON     SSET - Common Definitions
    EYUBAD09   NO                Test Application
```

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 for EYUPLX01 -----------------
COMMAND  ===>

 Name                 EYUBAD01      Description to be installed


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

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

   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.

Part 2. Business Application Services reference

This part provides reference information needed to use CICSPlex SM Business Application Services (BAS); it complements the guidance information provided in "Part 1. Business Application Services guide" on page 1.

Chapter 5. Using Business Application Services views

This chapter provides a summary of the views you can use to establish and maintain the Business Application Services activity at your enterprise.

This chapter describes:
- "Views for defining CICS resources"
- "Views for BAS administration" on page 65

For the Business Application Services views described in this book, you can use the following parameters with the MENU command:

ADMBAS

For a menu of the Business Application Services administration views

ADMRES

For a menu of the Business Application Services resource definition views.

For full details of using the end-user interface, see *CICSPlex SM User Interface Guide*.

Views for defining CICS resources

Table 3 lists the views for defining CICS resources to CICSPlex SM. It also indicates:
- What releases of CICS the resource can be defined for
- Whether the resource can be installed in CICS systems that support the EXEC CICS CREATE command

Note that all of these views support actions for creating, browsing, updating, and removing resource definitions, as well as adding resource definitions to a resource group.

Table 3. Views to create and maintain CICS resource definitions

Resource	View	Availability	Installable	Page
Connections	CONNDEF	All managed CICS systems	YES	82
DB2 connections	DB2CDEF	All managed CICS systems from CICS TS for OS/390 Release 2 onwards	YES	90
DB2 entries	DB2EDEF	All managed CICS systems from CICS TS for OS/390 Release 2 onwards	YES	99
DB2 transactions	DB2TDEF	All managed CICS systems from CICS TS for OS/390 Release 2 onwards	YES	104
Document templates	DOCDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	106
Enqueue models	ENQMDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	110
FEPI node definitions	FENODDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	113

Table 3. Views to create and maintain CICS resource definitions (continued)

Resource	View	Availability	Installable	Page
FEPI pool definitions	FEPOODEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	117
FEPI property set definitions	FEPRODEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	122
FEPI target list definitions	FETRGDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	126
Files	FILEDEF	All managed CICS systems	YES	130
File key segments	FSEGDEF	CICS for OS/2 systems only	NO	142
Journals	JRNLDEF	All managed CICS systems except: • CICS TS for OS/390 • CICS for OS/2 systems	YES	145
Journal models	JRNMDEF	All managed CICS systems from CICS TS for OS/390 Release 1 onwards	YES	149
LSR pools	LSRDEF	All managed CICS systems except CICS/MVS 2.1.2	YES	152
Map sets	MAPDEF	All managed CICS systems except CICS for OS/2 systems	YES	157
Partition sets	PRTNDEF	All managed CICS systems except CICS for OS/2 systems	YES	179
Partners	PARTDEF	All managed CICS systems except CICS/MVS 2.1.2	YES	160
Process types	PROCDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	163
Profiles	PROFDEF	All managed CICS systems except CICS for OS/2 systems	YES	167
Programs	PROGDEF	All managed CICS systems	YES	173
Request models	RQMDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	182
Sessions	SESSDEF	All managed CICS systems except CICS for OS/2 systems	NO	185
TCP/IP services	TCPDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards.	YES	193
Temporary storage queue models	TSMDEF	All managed CICS systems from CICS Transaction Server for OS/390 Release 3 onwards	YES	227
Terminals	TERMDEF	All managed CICS systems	YES	205
Transactions	TRANDEF	All managed CICS systems	YES	213
Transaction classes	TRNCLDEF	All managed CICS systems except CICS/MVS 2.1.2 and CICS/ESA 3.3	YES	224
Transient data queues	TDQDEF	All managed CICS systems	YES	197
Typeterms	TYPTMDEF	All managed CICS systems	YES	231

Views for BAS administration

Table 4 lists the views for creating and maintaining Business Application Services (BAS) definitions. It also indicates the information you can display and the actions you can perform using these views.

Table 4. Views to create and maintain BAS definitions

Display	Actions Supported	View	Page
Resource assignments	• Create, browse, update, and remove resource assignments. • Add an association between a resource assignment and a resource description.	RASGNDEF	247
Resource descriptions	• Create, browse, update, and remove resource descriptions. • Install or replace the resources associated with a resource description.	RESDESC	262
Resource descriptions with their resource assignments	• Browse, update, and remove associations between resource descriptions and resource assignments.	RASINDSC	256
Resource descriptions with their resource groups	• Browse, update, and remove associations between resource descriptions and resource groups.	RESINDSC	282
Resource groups	• Create, browse, update, and remove resource groups. • Add resource definitions to a resource group. • Add an association between a resource group and a resource description. • Install the resources associated with a resource group.	RESGROUP	111
Resource groups with their resource definitions	• Remove associations between resource groups and resource definitions.	RESINGRP	284
Resources selected by resource assignment	None	RASPROC	258
Resources selected by resource description	None	RDSCPROC	260
Resources selected for a CICS system	None	SYSRES	290

using Business Application Services views

Chapter 6. Resource definition views

This chapter contains detailed descriptions of the business application services views that you use to define CICS resources to CICSPlex SM. These views are referred to as 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 13.)
- Issuing the appropriate resource definition view command.

```
 26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
COMMAND  ===>                                          SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
 W1 =MENU===========CONTEXT===SCOPE=====26MAR1999==11:30:30=CPSM======17=
CMD Name              Description
--- ----------------------------------------
    ADMRES     Business Application Services Resource Views
      CONNDEF   Connection Definitions
      DB2CDEF   DB2 Connection Definitions
      DB2EDEF   DB2 Entry Definitions
      DB2TDEF   DB2 Transaction Definitions
      DOCDEF    Document Template Definitions
      ENQMDEF   Global Enqueue Definitions
      FENODDEF  FEPI Node List definitions
      FEPOODEF  FEPI Pool definitions
      FEPRODEF  FEPI PropertySet definitions
      FETRGDEF  FEPI Target List definitions
      FILEDEF   File Definitions
      FSEGDEF   File Key Segment Definitions
      JRNLDEF   Journal Definitions
      JRNMDEF   Journal Model Definitions
      LSRDEF    LSR Pool Definitions
      MAPDEF    Map Set Definitions
      PARTDEF   Partner Definitions
      PRTNDEF   Partition Set Definitions
      PROCDEF   Processtype Definitions
      PROFDEF   Profile Definitions
      PROGDEF   Program Definitions
      RQMDEF    Request Model Definitions
      SESSDEF   Session Definitions
      TCPDEF    TCPIP Service Definitions
      TDQDEF    Transient Data Queue Definitions
      TERMDEF   Terminal Definitions
      TRANDEF   Transaction Definitions
      TRNCLDEF  Transaction Class Definitions
      TSMDEF    Temporary Storage Model Definitions
      TYPTMDEF  Typeterm Definitions
```

Figure 13. The ADMRES menu

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

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

resource definition views

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 72.

ALTER

To alter the attributes of multiple resource definitions of a given type, as described in "Altering multiple resource definitions" on page 73.

BROwse

To browse a resource definition in the data repository, as described in "Updating or browsing a resource definition" on page 70.

CREate

To create a resource definition and add it to the data repository, as described in "Creating a resource definition".

INStall

To install a resource in one or more active systems, as described in "Installing a resource in CICS systems" on page 76. 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 "Removing a resource definition" on page 80.

UPDate

To update a resource definition in the data repository, as described in "Updating or browsing a resource definition" on page 70.

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

Notes:

1. The resource definition views also support the MAP action command, which produces a visual map of the definitions in the data repository. For a complete description of this action command and the display it produces, see *CICSPlex SM User Interface Guide*.

2. The TEMPMP action command is not supported for resource definition views. The maintenance point CMAS must be active when you are creating or maintaining resource definitions, or installing resources dynamically.

Creating a resource definition

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.

Many of the resource definitions consist of a large number of attributes and multiple input panels are required to create them. Figure 14 is an example of the first input panel produced when you are creating a resource definition.

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

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

Figure 14. Creating a resource definition - Page 1

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

Name The name of the resource definition.

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

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

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

Version

The version number of the resource definition.

You can specify one of the following:

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

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

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

For a description of how CICSPlex SM handles the versioning of resource definitions, see "Creating multiple versions of a resource definition" on page 14.

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 72.
- 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 273.

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

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

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

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

Updating or browsing 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.

To update a resource definition in the data repository, enter the UPD line action command next to the name of the definition you want to change. Similarly, to browse a resource definition, enter the BRO line action command next to the definition you want to display.

The update and browse panels are similar to the panels used to create the definition. However, there are certain differences between them.

Figure 15 is an example of the first input panel produced when you are updating a resource definition.

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

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


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

Figure 15. 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 14 on page 69. 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 and browse 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 and browse 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 "Checking a set of resources" on page 25.

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

```
COMMAND  ===>

   Resource Group     ===>              Group or Generic

   Resource Type      ===> FILEDEF    Resource Type
   Resource Name      ===> FILEDF01   Resource or Generic
   Resource Version   ===> 1          Resource Version


 Press ENTER to add resource to group.
 Type END or CANCEL to cancel without adding.
```

Figure 16. 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 "Creating a resource definition" on page 68.
- 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 273.

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 "Checking a set of resources" on page 25.

Altering multiple resource definitions

You can use the ALTER action command to update the attributes of multiple resource definitions, including definitions that are not currently displayed in a view.

Note: To update a single definition that is currently displayed in a resource definition view, use the UPD action command.

Figure 17 shows the format of the panel produced when you issue the alter primary action command (ALTER) from a resource definition view.

```
 COMMAND  ===>

  Resource Type      FILEDEF
  Resource Group ===>
 Filter string expression:  (Use FILTER command to list columns)
 ===>
 ===>
 ===>
 ===>
 ===>
 ===>
 ===>
 ===>

 Alter string expression:  (Use MODIFY command to list columns)
 ===>
 ===>
 ===>
 ===>

 Press ENTER to alter resource definition.
 Type END or CANCEL to cancel alter.
```

Figure 17. Altering a resource definition

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.

common resource definition actions

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

Filter Expression

```
►►─┤ logic_expr ├─┬──.──────────────────────────────────────────►◄
```

logic_expr:

```
             ┌─AND/OR──────────────────────┐
             │                             │
├──┬───────▼─┬────────────┬── attr_expr ──┬─┴──────────────────────┤
   │  └─NOT─┘  └─(─┤ logic_expr ├─)─┘
```

attr_expr:

```
├────attr─oper─value─────────────────────────────────────────────┤
```
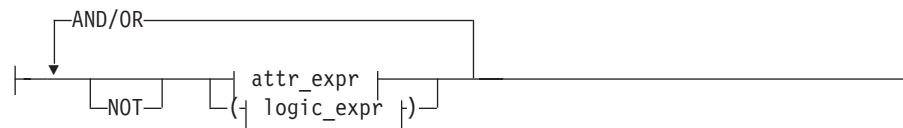
where:

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

oper
> Is one of the following comparison operators:
>
> <   Less than
> <=   Less than or equal to
> =   Equal to
> >=   Greater than or equal to
> >   Greater than
> ¬=   Not equal to

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

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

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

AND/OR

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

```
attr_expr AND attr_expr.
```

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

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

has a different meaning than this one:

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

NOT

Negates one or more attribute expressions.

You can negate a single attribute expression, like this:

```
NOT attr_expr
```

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

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

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

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

Alter string expression

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

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

Alter Expression

where:

attr

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

value

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

- The value must be a valid one for the attribute.

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

  ```
  DESCRIPTION='Payroll.OCT'
  ```
- To include a single quote or apostrophe in a value, you must repeat the character, like this:

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

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

When you press Enter, CICSPlex SM first validates the information on this panel to ensure that:
- The fields specified in the alter expression are modifiable.
- The value specified for each field is valid.

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

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

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

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

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

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

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

Installing a resource in CICS systems

You can use the INStall action command to manually install 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.

Figure 18 on page 77 shows the format of the panel produced when you issue the install line action command (INS) from a resource definition view.

```
 COMMAND  ===>

    Name               C001      Version  0
    Type               CONNDEF

    Target Scope   ===>
    Related Scope  ===>

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

 Override string expression:  (Type MODIFY to list modifiable columns)
 ===>
 ===>
 ===>

 Press ENTER to Install.
 Type END or CANCEL to cancel without installing.
```

Figure 18. Installing a resource in CICS systems

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

Provide the following information, as appropriate:

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

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

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

Usage Specify how the resource will be used:

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

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

common resource definition actions

                                    TDQDEF
                                    TRANDEF

Note: When you specify REMOTE, the resources are installed in all the CICS systems identified in both the Target Scope and Related Scope fields.

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 transacion 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 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.

Notify Specify the type of checking that should be performed before attempting to install the specified resource:

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.

If you request INACTIVE, RELEASE, or FULL checking, CICSPlex SM returns a list of CICS systems where the resource could not be installed.

State Check

Specify YES or NO to indicate whether the existence and operational state of the specified resource should be checked before an EXEC CICS CREATE command is issued.

Force Install

Specify YES or NO to indicate whether you want to install the resource even if CICSPlex SM believes it does 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.

Override string expression

(Optional) 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.)

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

Override Expression

```
       ┌──,────────┐
▶▶──────▼─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.

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

Note: For information on what happens if your installation request does not complete successfully, see "How installation errors are handled" on page 40.

Removing a resource definition

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

Figure 19 on page 81 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 19. 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.

Availability for CICS releases

Details of the connectivity of CICS systems to releases of CICSPlex SM are given in "CICS system connectivity" on page ix.

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

When you display a resource definition view and your CICSplex includes systems running a release of CICS for which that resource is not available, those systems are not included in the view. When you issue a resource definition view command and your CICSplex consists solely of systems running a release of CICS that is not available, 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.

CONNDEF (Connection definitions)

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

Availability

Connections can be defined for all managed CICS systems.

Access

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 20, includes information about all existing connection definitions within the current context.

Select: CONNDEF from the ADMRES menu.

```
 26MAR1999 11:30:30 --------- INFORMATION DISPLAY ------------------------
COMMAND  ===>                                        SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
 W1 ==CONNDEF========EYUPLX01=EYUPLX01==26MAR1999==11:30:30=CPSM======3====
CMD Name     Ver   Created         Changed            Description
--- -------  ---  -------------   --------------   -------------------------
    C001       1 1/17/97 17:06  1/17/97 17:06  ISC Connection
    C001       2 1/18/97 12:41  1/18/97 12:41  ISC Connection - Test
    C002       1 1/17/97 17:22  1/17/97 17:22  MRO Connection
```

Figure 20. The CONNDEF view

Action commands

Table 5 summarizes the action commands you can use with the CONNDEF view.

Table 5. CONNDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a connection definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of connection definitions, as described on page 73.

Table 5. CONNDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a connection definition in the data repository. The format of the resulting panels is similar to that shown in Figure 21 on page 84 and Figure 22 on page 87. All of the fields are nonmodifiable.
CREate	CRE	Create a connection definition and add it to the data repository, as described on page 83.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a connection in an active system, as described on page 76. After installation of a CONNDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM CONNECT command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE CONNECTION command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE CONNECTION command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a connection definition from the data repository, as described on page 80.
n/a	UPD	Update a connection definition in the data repository. The format of the resulting panels is similar to that shown in Figure 21 and Figure 22 on page 87. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the CONNDEF view.

Creating a connection definition

When you use the create primary (CREate) or line (CRE) action command from the CONNDEF view, a series of input panels is produced.

Figure 21 on page 84 shows the format of the first panel produced when you want to create a connection definition.

CONNDEF

```
COMMAND  ===>
 Name         ===> C00A      Version ===> 0
 Description  ===> System A Connection
 RESGROUP     ===>
 User Data    ===>

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

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

Figure 21. Creating a connection definition - Page 1

Provide the following information, as appropriate:

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

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 connection. CICSPlex SM makes no use of this user data.

AccessMethod
> Identify the access method to be used for the connection:
>
> **VTAM**
> > VTAM® intersystem communication (ISC).
>
> **INDIRECT**
> > An intermediate CICS system, as defined in the Indirect Sys field.
>
> **IRC** The interregion communication (IRC) program DFHIRP.
>
> **NETBIOS**
> > NetBIOS (CICS for OS/2).
>
> **TCPIP** TCP/IP (CICS for OS/2).
>
> **XCF** MVS coupling facility.
>
> **XM** MVS cross-memory services.

Attachsec

Specify the level of attach-time user security required for the connection:

LOCAL

Use link security, which means the authority of the user is the same as that of the link itself.

IDENTIFY

Require a user ID.

MIXIDPE

Support both IDENTIFY and PERSISTENT security types.

PERSISTENT

Require a user ID and password on first attach, but only a user ID on subsequent attach requests.

VERIFY

Require a user ID and password.

AutoConnect

Indicate whether autoconnect processing is to occur for the connection:

NO Do not attempt to bind sessions when the connection is established.

ALL Equivalent to YES. You can specify ALL for consistency with the session definition (SESSDEF).

YES Attempt to bind sessions when the connection is established.

ConnType

For external CICS interface (EXCI) connections, specify the type of connection:

SPECIFIC

MRO link with one or more sessions dedicated to a single EXCI user.

GENERIC

MRO link with multiple sessions to be shared by multiple EXCI users.

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

Specify the type of data stream:

USER User-defined data stream.

LMS Logical message services data stream, as defined in LU type 6.1 architecture.

SCS SCS data stream, as defined in LU type 6.1 architecture.

STRFIELD

Structured field data stream, as defined in LU type 6.1 architecture.

3270 3270 data stream, as defined in LU type 6.1 architecture.

IndirectSys

If you specified INDIRECT in the AccessMethod field, specify the 1- to 4-character name of an intermediate system that should be used to relay communications to the remote system.

Inservice

Indicate the service status of the connection:

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

NO The connection can neither receive messages nor transmit input.

MaxQueTime

If a queue limit is specified in the Queuelimit field, specify the maximum amount of time that queued allocate requests are to wait for free sessions:

NO No limit on the length of time that allocate requests can remain queued.

nnnn The maximum number of seconds, in the range 0 through 9999, that allocate requests can remain queued.

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

NetName

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

Protocol

Specify the type of protocol to be used for the link:

APPC LU type 6.2 protocol (Default for VTAM).

EXCI External CICS interface.

LU61 LU type 6.1 protocol.

NOTAPPLIC

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

If the connection definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

```
 COMMAND  ===>
  Name               C00A        Version ===> 0

  PSRecovery    ===> SYSDEFAULT  Persistent system recovery
                                   (NONE, SYSDEFAULT, N/A)
  Queuelimit    ===> NO          Queue limit (NO, 0-9999, blank)
  RecordFormat  ===> U           Record format (U, VB)

  RemoteName    ===>             APPC connection name
  RemoteSysNet  ===>             Remote system name
  RemoteSystem  ===>             Intercommunication link name

  SecurityName  ===>             Security name for remote system
  SingleSess    ===> NO          APPC term on single session (YES,NO,N/A)
  XlnAction     ===> KEEP        Logname receive action (KEEP,FORCE,N/A)
  BindPassword  ===>             Bind security password
  BindSecurity  ===> NO          Bind security (YES, NO)
  Usedfltuser   ===> N/A         Use default user (YES, NO, N/A)


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

Figure 22. Creating a connection definition - Page 2

Provide the following information, as appropriate:

PSRecovery
> Specify how LU 6.2 sessions should be recovered when the CICS system is restarted within the persistent session delay interval:
>
> **SYSDEFAULT**
>> The following actions occur:
>> - User modegroups are recovered to the session RECOVOPTION value.
>> - The SNASVCMG modegroup is recovered.
>> - The connection is returned in ACQUIRED state and the last negotiated CNOS state is returned.
>
> **NONE**
>> All sessions are unbound as out-of-service with no CNOS recovery.
>
> **N/A** The PSRecovery value does not apply to this definition and should not be validated.

Queuelimit
> Specify the maximum number of allocate requests that CICS can queue while waiting for free sessions:
>
> **NO** No limit on the number of allocate requests that CICS can queue.
>
> **nnnn** The maximum number of allocate requests that CICS can queue, in the range 0 through 9999.
>
> If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

RecordFormat
> Specify the type of SNA chain:
>
> **U** A single, unblocked stream of data.

VB Formatted according to the VLVB standard, as defined in the LU type 6.1 architecture.

RemoteName

Specify the 1- to 4-character name by which transaction routing knows the connection.

If you specify a remote name, CICSPlex SM uses that name when assigning the connection to a related system. Otherwise, the local name (that is, the name of this connection definition) is used in both the target and related systems.

RemoteSysNet

Specify the 1- to 4-character network name of the target system.

RemoteSystem

Specify the 1- to 4-character name by which the next system enroute to the target system is known.

SecurityName

For APPC and LU 6.1 links, specify the security name of the remote system. This name must be a valid RACF® user ID on the local CICS system.

SingleSess

For APPC links, indicate whether the connection is an APPC single session terminal:

NO The connection is not a single session terminal.

YES The connection is 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.

XlnAction

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

KEEP Recovery information is kept and no action is taken for in-doubt UOWs.

FORCE

The specified actions for in-doubt UOWs are implemented before any new work is begun with the new logname.

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

BindPassword

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

For APPC links, indicate whether an external security manager (ESM) should be 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.

Usedfltuser

Indicate whether the connection 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.

If the connection definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 23 shows the format of the third connection definition panel. The fields on this panel apply only to systems running CICS for OS/2 systems.

```
 COMMAND  ===>
  Name            C00A           Version ===> 0

  ConnPriority    ===> 86        Task Priority (0-255)
  SessCount       ===> 1         Concurrently active sessions (1-99)
  SessBuffSize    ===> 16384     Maximum buffer size (512-40000)
  PartCodePage    ===> 37        Partner code page (1-99999)

  Modename        ===>           Communication mode name
  LUAlias         ===>           Logical unit alias name
  PartnerLUAlias  ===>           Partner LU alias name

  NETBIOSAdapter  ===>           Logical LAN adapter (0,1,B)
  RemSysApplid    ===>           Remote system Appl ID

  LocalHostName   ===> *
  RemoteHostName  ===>
  RemoteHostPort  ===> 1435      Remote system port (1-65535, *)


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

Figure 23. Creating a connection definition - Page 3

Provide the following information, as appropriate:

ConnPriority

Specify the connection priority, in the range 0 through 255. (The default is 86.)

SessCount

Specify the number of sessions that can be concurrently active on the connection, in the range 1 through 99.

SessBuffSize

Specify the maximum buffer size for a session, in the range 512 through 40000. (The default is 16384.)

PartCodePage

Specify the 1- to 5-digit code page of the remote system. (The default is 37.)

Modename

For an APPC connection, identify the Communications Manager/2 mode definition that specifies the session attributes for the connection.

LUAlias

For an APPC connection, specify the 1- to 8-character alias of the local logical unit.

PartnerLUAlias

For an APPC connection, specify the 1- to 8-character name used by Communications Manager/2 to refer to the partner logical unit.

NETBIOSAdapter

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).

RemSysApplid

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.

LocalHostName

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.

RemoteHostName

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

RemoteHostPort

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.

To add the connection definition to the data repository, press Enter.

DB2CDEF (DB2 connection definitions)

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

Availability

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

Access

\#

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 24, includes information about all existing DB2 connection definitions within the current context.

|

Select: DB2CDEF from the ADMRES menu.

```
 26MAR1999 12:14:36 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                              SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =DB2CDEF===========EYUPLX01==EYUPLX01==26MAR1999==12:14:36====CPSM======4
 CMD NAME     Ver   Created         Changed      Description
 --- -------- ---  -------------- ------------- -----------------------------
     DB2CON01   1  7/22/97 12:12  7/22/97 12:13 Test
     DB2CON02   1  7/22/97 12:13  7/22/97 12:13 Test
     DB2CON03   1  7/22/97 12:13  7/22/97 12:14 Test
     DB2CON04   1  7/22/97 12:14  7/22/97 12:14 Test
     DB2CON05   1  7/22/97 12:14  7/22/97 12:14 Test
```

Figure 24. The DB2CDEF view

Action commands

Table 6 summarizes the action commands you can use with the DB2CDEF view.

Table 6. DB2CDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a DB2 connection definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of DB2 connection definitions, as described on page 73.
n/a	BRO	Browse a DB2 connection definition in the data repository. The format of the resulting panels is similar to that shown in Figure 25 on page 93 and Figure 26 on page 96. All of the fields are nonmodifiable.
CREate	CRE	Create a DB2 connection definition and add it to the data repository, as described on page 92.

Table 6. DB2CDEF view action commands (continued)

Primary command	Line command	Description
n/a	INS	For systems running CICS TS for OS/390 Release 2 or later, install a DB2 connection in an active system, as described on page 76.
		After installation of a DB2CDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM DB2CONN command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE DB2CONN command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE DB2CONN command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a DB2 connection definition from the data repository, as described on page 80.
n/a	UPD	Update a DB2 connection definition in the data repository. The format of the resulting panels is similar to that shown in Figure 25 on page 93 and Figure 26 on page 96. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the DB2CDEF view.

Creating a DB2 connection definition

When you use the create primary (CREate) or line (CRE) action command from the DB2CDEF view, a series of input panels is produced.

Figure 25 on page 93 shows the format of the first panel produced when you want to create a DB2 connection definition.

```
 ----------- Create DB2 Connection Definition for EYUPLX01 Page 1 ---------------
COMMAND ===>
   Name            ===> db2con05          Version ===> 1
   Description     ===> Test
   RESGROUP        ===>
   User Data       ===>
  CONNECTION ATTRIBUTES
   CONnecterror    ===> SQLCODE           Sqlcode | Abend
   DB2id           ===>
   MSGQUEUE1       ===> CDB2
   MSGQUEUE2       ===>
   MSGQUEUE3       ===>
   Nontermrel      ===> YES               Yes | No
   Purgecycle      ===> 00 , 30           0 - 59
   SIgnid          ===>
   STANbymode      ===> RECONNECT         Reconnect | Connect | Noconnect
   STATsqueue      ===> CDB2
   TCblimit        ===> 12                4 - 2000
   THREADError     ===> N906D             N906D | N906 | Abend

PRESS ENTER to create DB2CDEF.
Enter UP or DOWN to view other screens.
```

Figure 25. Creating a DB2 connection definition - Page 1

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the DB2 connection definition.

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 be 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.

CONnecterror
Specifies how the information that CICS is not connected to DB2 because the adaptor is in 'standby mode', is reported back to an application that has issued an SQL request:

SQLCODE
The application will receive a 923 sqlcode. SQLCODE cannot be specified if STANDBYMODE is set to NOCONNECT.

ABEND
The application will be abended with abend code AEY9.

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 hierachy for determining the DB2 subsystem is as follows:

1. Use subsystem id if specified on a DSNC STRT command
2. Use subsystem id on a SET DB2CONN CONNECTED DB2ID(xxx) command
3. Use DB2id from installed DB2CONN if not blank
4. Use subsystem id from INITPARM if specified
5. Use a 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 will release threads for reuse at intermediate syncpoints:

YES Non-terminal transactions release threads for reuse at intermediate syncpoints.

NO Non-terminal transactions do not release threads for reuse at intermediate syncpoints.

Purgecycle

Specifies the length of time in minutes and seconds of the protected thread purge cycle. The default is 0, 30; that is, 30 seconds.

A protected thread will not be terminated immediately when it is released. It is terminated only after two completed purge cycles, if it has not been reused in the meantime. So, if the purge cycle is set to 30 seconds, a protected thread will be purged 30 - 60 seconds after it is released. The first purge cycle after the attachment facility starts is always 5 minutes. After that the purge cycle 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 DB2CONN. Only threads belonging to a DB2CONN 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 DB2CONN threads that specify AUTHTYPE(SIGN). The default is blanks that are replaced by the applid of the CICS system when the DB2CONN is installed by CICS.

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:

RECONNECT

Specifies that the CICS DB2 attachment facility will 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', CICS subsequently reconnects to DB2 when DB2 recovers.

NOCONNECT

Specifies that the CICS DB2 attachment facility should terminate.

CONNECT

Specifies that the CICS DB2 attachment facility should wait in standby mode for DB2 to become active. If the connection is made, and DB2 subsequently fails, the CICS DB2 attachment facility terminates.

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 identified to DB2. 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 that reason, the recommended value for TCBLIMIT is the sum of all the values on the THREADLIMIT parameters on the DB2CONN and DB2ENTRY plus COMTHREADLIMIT. The value you choose for TCBLIMIT can be exceeded by increasing THREADLIMIT values for selected subtasks. When determining the amount for TCBLIMIT, be sure to consider the amount you specified for the MAX USERS parameter on DB2 installation panel DSNTIPE.

THREADError

Specifies the processing that is to occur following a create thread error:

ABEND

The transaction will be abended with abend code AD2S, AD2T or AD2U, depending on the type of error that occurred. 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 will document an abend of AD2S, AD2T or AD2U.

N906 The DSNCSQL RMI associated with the transaction is not to be request is issued, unless the transaction issues a SYNCPOINT ROLLBACK. SYNCPOINT without the ROLLBACK option results in an ASP3 or ASP7 abend.

If the DB2 connection definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 26 on page 96 shows the format of the second DB2 connection definition panel.

DB2CDEF

```
  ----------- Update DB2 Connection Definition for EYUPLX01 Page 2 ---------------
 COMMAND ===>
  Name               DB2CON05          Version   1

  POOL THREAD ATTRIBUTES
  ACcountrec    ===> NONE              None | TXid | TAsk | Uow
  AUTHId        ===>
  AUTHType      ===> USERID            Userid | Opid | Group | Sign | TErm
                                       | TX
  DRollback     ===> YES               Yes | No
  PLAN          ===>
  PLANExitname  ===> DSNCUEXT
  PRiority      ===> HIGH              High | Equal | Low
  THREADLimit   ===> 0003              3-2000
  THREADWait    ===> YES               Yes | No
 COMMAND THREAD ATTRIBUTES
  COMAUTHId     ===>
  COMAUTHType   ===> USERID            Userid | Opid | Group | Sign | TErm
                                       | TX
  COMThreadlim  ===> 0001              0-2000

 Press ENTER to update DB2CDEF.
```

Figure 26. Creating a DB2 connection definition - Page 2

Provide the following information, as appropriate:

ACcountrec
> Specifies whether the CICS DB2 attachment will produce a DB2 accounting record per UOW, per transaction, per tranid (that is, when the tranid changes) or not at all, for transactions using this DB2CONN.

> **None** No accounting records to be cut.

> **TASK** The CICS attachment facility will cut an accounting record per task.

> **TXID** The CICS attachment facility will cut an accounting record only when the transid using the thread changes.

> **UOW** The CICS attachment facility will cut an accounting record per unit of work (UOW) provided the thread has been released at syncpoint.

AUTHId
> Specifies the id to be used for security checking when using this DB2ENTRY. If AUTHId is specified, AUTHTYpe cannot 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 eight-character USERID associated with the CICS transaction is used as the authorization ID. When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the user ID to DB2 as the primary authorization ID and the 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).

> **GROUP**
>> Specifies the eight 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 eight-character field of blanks is passed to DB2 as the group ID.

SIGN Specifies the SIGNid parameter of the DB2CONN should 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.

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).

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 will issue a sync point rollback before returning control to the application. An SQL return code of -911 is returned to the program.

NO The attachment facility will not attempt 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. If you change the PLAN and PLANEXITNAME while there are active transactions for the DB2ENTRY, 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 tasks for the DB2ENTRY relative to the CICS main task (QR 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 subtask.

LOW Subtasks have a lower priority than the CICS main task.

THREADLimit

Specifies the maximum number of threads for this DB2ENTRY that the CICS DB2 attachment allows active before requests are made to wait or are rejected.

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.

YES If all threads are busy, a transaction must wait until one becomes available. A transaction can wait as long as CICS allow it to wait, generally until a thread becomes available.

No If all threads are busy, the transaction will be terminated with an abend code, AD3T.

COMAUTHId

Specifies what id should be used for security checking when using command threads. If COMAUTHId is specified, COMAUTHType cannot 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 no be specified.

USERID

The eight-character userid associated with the CICS transaction is used as the authorization ID. When the DB2 sample sign-on exit DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the USERID to DB2 as the primart 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(CUSERID) and COMAUTHTYPE(CGROUP).

GROUP

Specifies the eight 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 eight-character field of blanks is passed to DB2 as the group ID

SIGN Specifies the SIGN parameter of the DB2CONN should 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, the COMAUTHTYPE(TERM) should not be used.

TX Specifies the transaction identification (four characters padded to eight) as the authorization ID.

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).

COMThreadlim

The number specifies the current maximum number of command threads the CICS DB2 attachment facility allows active before requests overflow to the pool.

To add the DB2 connection definition to the data repository, press Enter.

DB2EDEF (DB2 entry definitions)

A DB2 entry definition (DB2EDEF) specifies the resources required by CICS transactions that access a DB2 subsystem via the DB2 attachment facility.

Availability

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

Access

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 27, includes information about all existing DB2 entry definitions within the current context.

Select: DB2EDEF from the ADMRES menu.

```
  26MAR1999 12:14:36 ----------- INFORMATION DISPLAY --------------------------
  COMMAND  ===>                                            SCROLL ===> PAGE
  CURR WIN ===> 1        ALT WIN ===>
   W1 =DB2EDEF===========EYUPLX01==EYUPLX01==26MAR1999==12:56:43====CPSM======5
  CMD NAME     Ver   Created         Changed      Description
  --- -------- --- -------------- -------------- ------------------------------
      db2ent01   1  7/22/97 12:51  7/22/97 12:51 Test
      db2ent02   1  7/22/97 12:51  7/22/97 12:51 Test
      db2ent03   1  7/22/97 12:51  7/22/97 12:51 Test
      db2ent03   2  7/22/97 12:52  7/22/97 12:53 Test
      db2ent04   1  7/22/97 12:56  7/22/97 12:56 Test
```

Figure 27. The DB2EDEF view

Action commands

Table 7 summarizes the action commands you can use with the DB2EDEF view.

Table 7. DB2EDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a DB2 entry definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of DB2 entry definitions, as described on page 73.
n/a	BRO	Browse a DB2 entry definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 28 on page 101. All of the fields are nonmodifiable.

Table 7. DB2EDEF view action commands (continued)

Primary command	Line command	Description
CREate	CRE	Create a DB2 entry definition and add it to the data repository, as described on page 100.
n/a	INS	For systems running CICS TS for OS/390 Release 2 or later, install a DB2 entry in an active system, as described on page 76.
		After installation of a DB2EDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM DB2NTRY command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE DB2ENTRY command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE DB2ENTRY command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a DB2 entry definition from the data repository, as described on page 80.
n/a	UPD	Update a DB2 entry definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 28 on page 101. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the DB2EDEF view.

Creating a DB2 entry definition

Figure 28 on page 101 shows the format of the panel produced when you want to create a DB2 entry definition.

```
----------------- Create DB2 Entry Definition for EYUPLX01 --------------------
COMMAND ===>
  Name          ===> db2ent04          Version ===> 0
  Description   ===> Test
  RESGROUP      ===>
  User Data     ===>
 THREAD SELECTION ATTRIBUTES
  TRansid       ===>
 THREAD OPERATION ATTRIBUTES
  ACcountrec    ===> NONE              None | TXid | TAsk | Uow
  AUTHId        ===>
  AUTHType      ===> USERID            Userid | Opid | Group | Sign | TErm
                                       | TX
  DRollback     ===> YES              Yes | No
  PLAN          ===>
  PLANExitname  ===> DSNCUEXT
  PRiority      ===> HIGH             High | Equal | Low
  PROtectnum    ===> 0000             0-2000
  THREADLimit   ===> 0000             0-2000
  THREADWait    ===> POOL             Pool | Yes | No

Press ENTER to create DB2EDEF.
```

Figure 28. Creating a DB2 entry definition

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the DB2 entry 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 for the DB2 entry.

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 DB2 entry. CICSPlex SM makes no use of this user data.

TRansid

Specifies the transaction id associated with the entry. Only one transaction can be specified here. The transaction id cannot be wildcarded. Additional transactions can be defined for this entry by defining multiple DB2TRANs that refer to this DB2ENTRY.

Transid is optional on a DB2ENTRY. You can choose to associate transactions with a DB2ENTRY by means of DB2TRANs instead. However if only one transaction is associated with a DB2ENTRY it is easier to specify it on the DB2ENTRY.

Note: Specifying a transaction id here causes a 'ghost' DB2TRAN object to be created when the DB2ENTRY is installed, and such DB2TRAN objects may appear on SYSRES and RDSCPROC views.

DB2EDEF

> **Attention:** You can change the value of selected BAS objects using the
> Override field of a RASGNDEF object, as described on page 247. 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.

ACcountrec
Specifies whether the CICS DB2 attachment will produce a DB2 accounting
record per UOW, per transaction, per tranid (that is, when the tranid
changes) or not at all, for transactions using this DB2ENTRY:

NONE
No accounting records produced.

TASK The CICS attachment facility produces an accounting record per
task.

TXID The CICS attachment facility produces an accounting record only
when the transid using the thread changes.

UOW The CICS attachment facility produces an accounting record per
unit of work (UOW) provided the thread has been released at
syncpoint.

AUTHId
Specifies the id to be used for security checking when using this
DB2ENTRY. If AUTHId is specified, AUTHTYpe cannot 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 eight-character USERID associated with the CICS transaction is
used as the authorization ID. When the DB2 sample sign-on exit
DSN3@SGN is used with AUTHTYPE(USERID), the exit sends the
user ID to DB2 as the primary authorization ID and the 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).

GROUP
Specifies the eight character USERID and the connected group
name as the authorization ID. The following table shows how these
two values are interpreted by DB2.

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
eight-character field of blanks is passed to DB2 as the group ID.

SIGN Indicates that the SIGN parameter of the DB2CONN should 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.

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).

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 will issue a SYNCPOINT rollback before returning control to the application. An SQL return code of -911 is returned to the program.

NO The attachment facility will not attempt 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. If you change the PLAN and PLANEXITNAME while there are active transactions for the DB2ENTRY, 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 tasks for the DB2ENTRY relative to the CICS main task (QR 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 subtask.

LOW Subtasks have a lower priority than the CICS main task.

PROtectnum

Specifies the maximum number of protected threads allowed for this DB2ENTRY.

A thread, when it is released by a transaction and there is no other work queued, can be protected, meaning that it will not be 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 3 - 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 whilst 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 DB2ENTRY that the CICS DB2 attachment allows active before requests are made to wait or are rejected.

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 will be diverted to use the pool of threads. If the pool is also busy, and NO has been specified for the THREADWAIT parameter on the DB2CONN. The transaction is terminated with abend code AD3T.

YES If all threads are busy, a transaction will wait until one becomes available.

To add the DB2 entry definition to the data repository, press Enter.

DB2TDEF (DB2 transaction definitions)

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

Availability

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

Access

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 29, includes information about all existing DB2 transaction definitions within the current context.

Select: DB2TDEF from the ADMRES menu.

```
 26MAR1999  13:09:32 ----------- INFORMATION DISPLAY --------------------------
 CURR WIN ===> 1         ALT WIN ===>
  W1 =DB2TDEF===========EYUPLX01==EYUPLX01==26MAR1999==13:09:32====CPSM=======3
 CMD NAME      Ver   Created         Changed       Description
 --- --------  ---  --------------  --------------  ----------------------------
     db2tran1   1   7/22/97 13:08   7/22/97 13:08  Test
     db2tran2   1   7/22/97 13:08   7/22/97 13:08  Test
     db2tran3   1   7/22/97 13:09   7/22/97 13:09  Test
     db2tran3   2   7/22/97 13:13   7/22/97 13:13  Test
     db2tran5   1   7/22/97 13:16   7/22/97 13:16  Test
```

Figure 29. The DB2TDEF view

Action commands

Table 8 on page 105 summarizes the action commands you can use with the DB2TDEF view.

Table 8. DB2TDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a DB2 transaction definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of DB2 transaction definitions, as described on page 73.
n/a	BRO	Browse a DB2 transaction definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 30 on page 106. All of the fields are nonmodifiable.
CREate	CRE	Create a DB2 transaction definition and add it to the data repository, as described on page 105.
n/a	INS	For systems running CICS TS for OS/390 Release 2 or later, install a DB2 transaction in an active system, as described on page 76.
		After installation of a DB2TDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM DB2TRAN command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE DB2TRAN command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE DB2TRAN command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a DB2 transaction definition from the data repository, as described on page 80.
n/a	UPD	Update a DB2 transaction definition in the data repository. The format of the resulting panel is similar to that shown in Figure 30 on page 106. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the DB2TDEF view.

Creating a DB2 transaction definition

When you use the create primary (CREate) or line (CRE) action command from the DB2TDEF view, the input panel shown in Figure 30 on page 106 is produced.

```
----------------- Create DB2 Trn Definition for EYUPLX01 ---------------------
COMMAND ===>
    Name          ===> db2tran5          Version ===>0
    Description   ===> Test
    RESGROUP      ===>
    User Data     ===>

    Entry         ===> db2ent02
    Transid       ===>



Press ENTER to create DB2TDEF.
Enter END or CANCEL to cancel without creating.
```

Figure 30. Creating a DB2 transaction definition

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the DB2 transaction definition.

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

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

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. CICSPlex SM makes no use of this user data.

Entry   Specifies the name of the DB2EDEF to which this DB2TDEF refers. It is the
  DB2EDEF definition with which this additional transaction should be
  associated.

Transid
  Specifies the transaction id to be associated with the entry. The transaction
  id cannot be wildcarded.

  Note: If the transaction id is not specified, it defaults to the first four
       characters of the name of the DB2TDEF object being defined. That is,
       the command:

```
DB2TDEF(ABCDEFGH) ENTRY(entry)
```

       is equivalent to the command:

```
DB2TDEF(ABCDEFGH) ENTRY(entry)  TRANSID(ABCD)
```

To add the DB2 transaction definition to the data repository, press Enter.

DOCDEF (document template definitions)

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

Availability

Document templates can be defined for all managed CICS systems at CICS Transaction Server for OS/390 Release 3 and later.

Access

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 31, includes information about all existing document template definitions within the current context.

Select: DOCDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ------------------------
 COMMAND ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 W1 ==DOCDEF==========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======4====
 CMD Name     Ver   Created         Changed      Description
 --- -------- ---  --------------  --------------  --------------------------
     TEMPLT01   1  7/28/98 10:52   7/28/98 10:52  Test template 1
     EYUPAUT2   1  7/28/98 11:03   7/28/98 11:03  Test template 2
```

Figure 31. The DOCDEF view

Action commands

Table 9 summarizes the action commands you can use with the DOCDEF view.

Table 9. DOCDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a document template definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of document template definitions, as described on page 73.
n/a	BRO	Browse a document template definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 32 on page 109. All of the fields are nonmodifiable.
CREate	CRE	Create a document template definition and add it to the data repository, as described on page 108.

Table 9. DOCDEF view action commands (continued)

Primary command	Line command	Description
n/a	INS	For systems running CICS Transaction Server for OS/390 Release 3 or later, install a document template in an active system, as described on page 76.
		After installation of a DOCDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM DOCTEMP command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE DOCTEMPLATE command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE DOCTEMPLATE command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a document template definition from the data repository, as described on page 80.
n/a	UPD	Update a document template definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 32. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the DOCDEF view.

Creating a document template definition

Figure 32 on page 109 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the DOCDEF view.

```
COMMAND ===>
  Name          ===>              Version   ===> 1
  Description   ===>
  RESGROUP      ===>
  User Data     ===>

  FULL TEMPLATE NAME
   Templatename ===>
  ASSOCIATED CICS RESOURCE
   File         ===>              Name of file
   TSqueue      ===>              Name of temporary storage queue
   TDqueue      ===>              Name of transient data queue
   Program      ===>              Name of program
   Exitpgm      ===>              Name of exit program
  PARTITIONED DATA SET
   DDname       ===>              DD name of partitioned dataset
   Membername   ===>              Name of member in partitioned dataset
  TEMPLATE PROPERTIES
   AppendCRLF   ===>              Append CRLF (YES, NO)
   Type         ===>              Document Type (BINARY, EBCDIC)

Press ENTER to create DOCDEF.
Enter END or CANCEL to cancel without creating.
```

Figure 32. Creating a document template definition

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the document template 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 document
> template.

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 document template. CICSPlex SM makes no use of this user
> data.

Templatename
> Specify the full name of the template. If no value is specified the default is
> the 1- to 48-character name for the document template definition.

File   Specify the 8-character name of the CICS file definition for the data set
> containing the template.

TSqueue
> Specify the 1- to 16-character name of the temporary storage queue
> containing the template.

TDqueue
> Specify the 1- to 4-character name of the transient data queue containing
> the template.

DOCDEF

Program
Specify the 8-character name of the CICS program for the program containing the template.

Exitpgm
Specify the exit program to be invoked when a request is made for this template. The exit program passes an architected commarea, and returns a copy of the template from wherever it is (for example, DB2). The definition of the commarea is in copy book DFHDHTX*x*, where *x* defines the programming language.

For more details about the commarea and DFHDHTX, see the *CICS Internet Guide*.

DD Name
Specify the 1- to 8-character DDname of the partitioned dataset containing hte template.

Membername
Specify the 1- to 8-character name of the member containing the template. This is a member of the partitioned dataset specified by DDname.

AppendCRLF
Specify whether or not a carriage return/linefeed pair is to be appended to, and trailing blanks are to be removed from, each record as it is read from the PDS, FILE, TDQUEUE or TSQUEUE.

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.

To add the program definition to the data repository, press Enter.

ENQMDEF (Enqueue model definitions)

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

Availability

Enqueue models can be defined for CICS Transaction Server for OS/390 Release 3 and later systems.

Access

To display information about existing enqueue model definitions:

Issue the command:

        ENQMDEF [*resdef*]

where *resdef* is the specific or generic name of a enqueue model definition. If you omit this parameter, the view, illustrated in Figure 33 on page 111, includes information about all existing enqueue model definitions within the current context.

Select: ENQMDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
 W1 ==ENQMDEF========EYUPLX01=EYUPLX01==26MAR1999==11:30:30=CPSM======4==
 CMD Model    Ver    Created         Changed       Description
 --- Name     ---  --------------  --------------  ----------------------
     AAAAAAAA  10  1/17/97 15:21   1/17/97 15:21   SSET - Workload IVP Def
     BBBBBBBB   2  1/18/97 09:12   1/18/97 09:12   SSET - Workload IVP Def
     CCCCCCCC   1  1/09/97 15:28   1/09/97 15:28   SSET - Definition
     DDDDDDDD   1  1/09/97 15:51   1/09/97 15:51   SSET - Definition
```

Figure 33. The ENQMDEF view

Action commands

Table 10 summarizes the action commands you can use with the ENQMDEF view.

Table 10. ENQMDEF view action commands

Primary command	Line command	Description
n/a	BRO	Browse a enqueue model definition in the data repository. The format of the resulting panels is similar to that shown in Figure 34 on page 112. All of the fields are nonmodifiable.
CREate	CRE	Create a enqueue model definition and add it to the data repository, as described on page 112.
n/a	INS	For systems running CICS Transaction Server for OS/390 Release 3, install a enqueue model in an active system, as described on page 76. After installation of a ENQMDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM ENQMDL command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE ENQMODEL command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE ENQMODEL command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a enqueue model definition from the data repository, as described on page 80.
n/a	UPD	Update a enqueue model definition in the data repository. The format of the resulting panels is similar to that shown in Figure 34. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the ENQMDEF view.

Creating an enqueue model definition

When you use the create primary (CREate) or line (CRE) action command from the ENQMDEF view, an input panels is produced.

Figure 34 shows the format of the panel produced when you want to create a enqueue model definition.

```
COMMAND ===>
    Name           ===> ENQMODA1   Version   ===> 1
    Description    ===> Test Enqueue Model Description
    RESGROUP       ===>
    User Data      ===>

    Enqscope       ===> SCOA
    Status         ===> ENABLED           Enabled │ Disabled
    Enqname        ===> ENQNAME01ENQNAME01ENQNAME01ENANAME01ENQNAME01ENQNAME01E
                   ===> NQNAME01ENQNAME01ENQNAME01ENQNAME01ENQNAME01
                   ===>
                   ===>
                   ===>




Press ENTER to create ENQMDEF.
Enter END or CANCEL to cancel without creating.
```

Figure 34. Creating an enqueue model definition

Provide the following information, as appropriate:

Name   Specify a 1- to 4-character ID for the enqueue model 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 enqueue model.

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 enqueue model. CICSPlex SM makes no use of this user data.

Enqscope
> Specify a 4-character scope name. The value of this field defines the group

? of CICS systems to which this enqueue model belongs. If this field is
? omitted or blank, any matching enqueue models will have a local scope.

? **Status** Specify the state of the installed enqueue model.

? **ENABLED**
? The enqueue model will be enabled if it is disabled. When an
? enqueue model is enabled, matching enqueue requests are
? processed in the normal way.

? **DISABLED**
? The enqueue model is put into the WAITING state until there are
? no enqueues in the local system. When an enqueue model is
? disabled, matching enqueue requests are rejected.

? **Enqname**
? Specify a 1- to 255-character name for the enqueue model.

? To add the enqueue model definition to the data repository, press Enter.

Installing enqueue model definitions

? 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*.

FENODDEF (FEPI node list definitions)

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

Availability

FEPI nodes can be defined for CICS/ESA 4.1 and later systems, and
CICS for OS/2 3.1 and later systems.

Access

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 35 on page 114,
includes information about all existing FEPI node definitions within the
current context.

Select: FENODDEF from the ADMRES menu.

FENODDEF

```
   26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                           SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 W1 ==FENODDEF=======EYUPLX01=EYUPLX01===26MAR1999==11:30:30=CPSM======3==
 CMD Name    Ver  Created         Changed         Description
 --- ------- --- -------------- --------------  -----------------------
     EYUFEN01  1  5/01/99 10:02   5/01/99 10:02  FEPI node 1
     EYUFEN02  2  5/01/99 10:14   5/01/99 14:33  FEPI node 2
     EYUFEN03  1  5/01/99 10:06   7/01/99 10:06  FEPI node 3
```

Figure 35. The FENODDEF view

Action commands

Table 11 summarizes the action commands you can use with the FENODDEF view.

Table 11. FENODDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a FEPI node definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of FEPI node definitions, as described on page 73.
n/a	BRO	Browse a FEPI node definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 36 on page 116. All of the fields are nonmodifiable.
CREate	CRE	Create a FEPI node definition and add it to the data repository, as described on page 115.
n/a	INS	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 76.
		After installation of a FENODDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM FENODE command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE FENODE command; see *CICS Supplied Transactions*.
		• The EXEC FEPI INQUIRE NODE command; see *CICS Front End Programming Interface User's Guide*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a FEPI node definition from the data repository, as described on page 80.

Table 11. FENODDEF view action commands (continued)

Primary command	Line command	Description
n/a	UPD	Update a FEPI node definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 36. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the FENODDEF view.

Creating a FEPI node definition

When you use the create primary (CREate) or line (CRE) action command from the FENODDEF view, 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. Figure 36 on page 116 shows the FEPI node list definition fields in one list for convenience.

FENODDEF

```
   COMMAND ===>
    Name          ===> EYUFEN01     Version  ===> 0
    Description   ===> FEPI Node List 1
    RESGROUP      ===>
    User Data     ===>

    Acquire Status   ===> ACQUIRED     ACQUIRED | RELEASED
    Service Status   ===> INSERVICE    INSERVICE | OUTSERVICE

         Node            Password        Node           Password
    ===> FNODE1     ===> FPASSWD1   ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
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    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
    ===>            ===>            ===>            ===>
   Press ENTER to update FENODDEF.
   Enter END or CANCEL to cancel wthout creating.
```

Figure 36. Creating a FEPI node definition

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
?   maxiumum 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.

? **Note:** Each node must have one password entry.
? To add the FEPI node list definition to the data repository, press Enter.

FEPOODEF (FEPI pool definitions)

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

Availability

\#   FEPI pools can be defined for CICS/ESA 4.1 and later systems, and
\#   CICS for OS/2 3.1 and later systems.

Access

? 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 37 on page 118, includes
? information about all existing FEPI pool definitions within the current
? context.

? **Select:** FEPOODEF from the ADMRES menu.

?

FEPOODEF

```
   26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 W1 ==FEPOODEF=======EYUPLX01=EYUPLX01===26MAR1999==11:30:30=CPSM======3==
 CMD Name     Ver  Created        Changed        Description
 --- -------  --- -------------- -------------- -----------------------
     EYUFEP01   1  5/01/99 10:02  5/01/99 10:02  FEPI Pool 1
     EYUFEP02   2  5/01/99 10:14  5/01/99 14:33  FEPI Pool 2
     EYUFEP03   1  5/01/99 10:06  7/01/99 10:06  FEPI Pool 3
```

Figure 37. The FEPOODEF view

Action commands

Table 12 summarizes the action commands you can use with the FEPOODEF view.

Table 12. FEPOODEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a FEPI pool definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of FEPI pool definitions, as described on page 73.
n/a	BRO	Browse a FEPI pool definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 38 on page 120. All of the fields are nonmodifiable.
CREate	CRE	Create a FEPI pool definition and add it to the data repository, as described on page 119.
n/a	INS	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 76.
		After installation of a FEPOODEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM FEPOOL command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE FEPOOL command; see *CICS Supplied Transactions*.
		• The EXEC FEPI INQUIRE POOL command; see *CICS Front End Programming Interface User's Guide*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a FEPI pool definition from the data repository, as described on page 80.

Table 12. FEPOODEF view action commands (continued)

Primary command	Line command	Description
n/a	UPD	Update a FEPI pool definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 38. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the FEPOODEF view.

Creating a FEPI pool definition

When you use the create primary (CREate) or line (CRE) action command from the FEPOODEF view, 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 38 on page 120 shows the FEPI pool definition fields in one list for convenience.

FEPOODEF

```
 COMMAND ===>
  Name            ===> EYUFEN01     Version  ===> 0
  Description     ===> FEPI Pool 1
  RESGROUP        ===>
  User Data       ===>

  Property Set         ===> FPROP1        FEPI Property Set
  Acquire Status       ===> ACQUIRED      ACQUIRED | RELEASED
  Service Status       ===> INSERVICE     INSERVICE | OUTSERVICE

                                Nodelist
    ===> EYUFND01       ===> EYUFND02     ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>

                               TargetList
    ===> EYUTGT01       ===> EYUTGT02     ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
    ===>                ===>              ===>            ===>
 Press ENTER to update FEPOODEF.
 Enter END or CANCEL to cancel without creating.
```

Figure 38. Creating a FEPI pool definition

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 39.

```
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

C Name     Ver Description                    Type
- -------- --- ------------------------------ ----------------
- FPROP1   1   FEPI Property Set 1            FEPRODEF
- FPROP2   1   FEPI Property Set 2            FEPRODEF
- FPROP3   1   FEPI Property Set 3            FEPRODEF
s FPROP4   1   FEPI Property Set 4            FEPRODEF
- FPROP5   1   FEPI Property Set 5            FEPRODEF
****************************** Bottom of data ****************************************
```

Figure 39. 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 sonnections 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 maxiumum of 132 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.

? To add the pool definition to the data repository, press Enter.

FEPRODEF (FEPI property set definitions)

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

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.

Access

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 40,
includes information about all existing FEPI property set definitions within
the current context.

Select: FEPRODEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1           ALT WIN ===>
 W1 ==FEPRODEF=======EYUPLX01=EYUPLX01===26MAR1999==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 40. The FEPRODEF view

Action commands

Table 13 summarizes the action commands you can use with the FEPRODEF view.

Table 13. FEPRODEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a FEPI property set definition to a resource group, as described on page 72.

Table 13. FEPRODEF view action commands (continued)

Primary command	Line command	Description
ALTER	n/a	Apply global changes to a set of FEPI property set definitions, as described on page 73.
n/a	BRO	Browse a FEPI property set definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 41 on page 124. All of the fields are nonmodifiable.
CREate	CRE	Create a FEPI property set definition and add it to the data repository, as described on page 132.
n/a	INS	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 76.
		After installation of a FEPRODEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM FEPROP command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE FEPROPSET command; see *CICS Supplied Transactions*. • The EXEC FEPI INQUIRE PROPERTYSET command; see *CICS Front End Programming Interface User's Guide*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a FEPI property set definition from the data repository, as described on page 80.
n/a	UPD	Update a FEPI property set definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 41. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the FEPRODEF view.

Creating a FEPI property set definition

When you use the create primary (CREate) or line (CRE) action command from the FEPRODEF view, the panel shown in Figure 41 on page 124 is displayed..

```
COMMAND ===>
 Name           ===> EYUFES01    Version  ===> 0
 Description    ===> FEPI property set 1
 RESGROUP       ===>
 User Data      ===>

 Begin Session       ===> ABCD         Begin Session Transaction
 Contention          ===> LOSE         WIN | LOSE
 Device              ===> T3278M2      Mode and Type
 End Session         ===> WXYZ         End Session Transaction
 Exception Q         ===> TDQ1         TD Queue for exceptions
 FJournalNum         ===> 1            Journal Number
 FJournalName        ===>              Journal name
 Format              ===> FORMATTED    Data Format
 Initial Data        ===> NOTINBOUND   Expect inbound Data
 MaxFlength          ===> 4096         Max length of returned data
 MsgJrnl             ===> NOMSGJRNL    Journalling Status
 STSN                ===>              STSN transaction
 UnSolicited Data    ===>              Unsolicited data transaction
 UnSolicited Ack     ===> NEGATIVE     Unsolicited data acknowledge
Press ENTER to update FEPRODEF.
 Enter END or CANCEL to cancel wthout creating.
```

Figure 41. Creating a FEPI property set definition

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the FEPI property set definition.

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

Description
(Optional.) Specify a 1- to 30-character description of the FEPI property set.

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

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

Begin Session
(Optional.) Specify the name of the transaction that will perform begin-session processing, immediately after a session has been established. If this option is omitted, there is no user-supplied begin-session processing.

Contention
Specify what is to happen when an EXEC CICS FEPI SEND command is issued and there is inbound data with begin-bracket. The options are:

LOSE The EXEC CICS FEPI SEND command fails; an EXEC CICS FEPI RECEIVE command must be issued to get the inbound data.

WIN The EXEC CICS FEPI SEND commands succeeds; inbound data is rejected with a negative response.

Device
Specify the LU mode and the device type that is to be simulated. The options are:

?	**T3278M2**
?	T3278M3
?	T3278M4
?	T3278M5
?	T3279M2
?	T3279M3
?	T3279M4
?	T3279M5
?	TPS55M2
?	TPS55M3
?	TPS55M4
?	LUP

? **End Session**

? (Optional.) Specify the name of the transaction that will perform
? end-session processing, either when a conversation is ended or when a
? session is to be ended. If this option is omitted, there is not user-supplied
? end-session processing.

? **Exception Q**

? Specify the name of the transient data queue to which pool-specific
? exceptional events are to be notified. If this option is omitted, there is no
? used-supplied exceptional event queue processing.

? **FJournalNum**

? (Optional.) Specify the number of the journal where data is to be logged, in
? the range 1 (the default) through 99. If the value is 0 (zero) or omitted, no
? journaling is done.

? **FJournalName**

? (Optional.) Specify the name of the journal where data is to be logged. If
? the value is omitted, no journaling is done.

? **Format**

? Specify, for SLU2 mode, the data mode to be used. The options are:

? **FORMATTED**

? Formatted operations. Character attributes are not supported on
? outbound data and ignored on inbound data.

? **DATASTREAM**

? Data stream operation.

? **Initial Data**

? Specify whether initial inbound data is expected when a session is started.
? The options are:

? **NOTINBOUND**

? No inbound data is expected.

? **INBOUND**

? Inbound data is expected.

? **MAXFlength**

? Specify the maximum length of data that can be returned on any FEPI
? RECEIVE, CONVERSE, or EXTRACT FIELD command for a conversation,
? or that can be sent by any FEPI SEND or CONVERSE command for a
? conversation. This value helps FEPI use storage in a mor 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 transation 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.

| FETRGDEF (FEPI target list definitions)

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

| Availability

\#   FEPI targets can be defined for CICS/ESA 4.1 and later systems, and
\#   CICS for OS/2 3.1 and later systems.

? Access

?   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 42, includes information about all existing FEPI target definitions within the current context.

Select: FETRGDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND ===>                                           SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 ==FETRGDEF=======EYUPLX01=EYUPLX01===26MAR1999==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 42. The FETRGDEF view

Action commands

Table 14 summarizes the action commands you can use with the FETRGDEF view.

Table 14. FETRGDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a FEPI target definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of FEPI target definitions, as described on page 73.
n/a	BRO	Browse a FEPI target definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 43 on page 129. All of the fields are nonmodifiable.
CREate	CRE	Create a FEPI target definition and add it to the data repository, as described on page 128.
n/a	INS	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 76.
		After installation of a FETRGDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM FETRGT command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE FETARGET command; see *CICS Supplied Transactions*. • The EXEC FEPI INQUIRE TARGET command; see *CICS Front End Programming Interface User's Guide*.

Table 14. FETRGDEF view action commands (continued)

Primary command	Line command	Description
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a FEPI target definition from the data repository, as described on page 80.
n/a	UPD	Update a FEPI target definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 43. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the FETRGDEF view.

Creating a FEPI target definition

When you use the create primary (CREate) or line (CRE) action command from the FETRGDEF view, 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 43 on page 129 shows the FEPI node list definition fields in one list for convenience.

```
COMMAND ===>
 Name          ===> EYUFEN01      Version  ===> 0
 Description   ===> FEPI target 1
 RESGROUP      ===>
 User Data     ===>

 Service Status    ===> INSERVICE    INSERVICE | OUTSERVICE


                             TargetList
 ===> EYUTGT01     ===> EYUTGT02    ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>


                             VTAM Applids
 ===> VTAMAPP1     ===> VTAMAPP2    ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 ===>             ===>            ===>            ===>
 Press ENTER to update FETRGDEF.
 Enter END or CANCEL to cancel wthout creating.
```

Figure 43. Creating a FEPI target definition

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.

FETRGDEF

?	**Service Status**
?	Specify the initial service state of the pool being installed and the
?	connections being created. All new sonnections 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.
?	Press Enter.

FILEDEF (File definitions)

File definitions describe the physical and operational characteristics of files.

Availability

Files can be defined for all managed CICS systems.

Access

? 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 44 on page 131, includes
information about all existing file definitions within the current context.

| **Select:** FILEDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 ==FILEDEF=======EYUPLX01=EYUPLX01===26MAR1999==11:30:30=CPSM======3==
 CMD Name    Ver  Created        Changed        Description
 --- ------- --- -------------- -------------- ------------------------
     EYUFIL08  1  1/09/97 10:02  1/09/97 10:02  Payroll Updates - Local
     EYUFIL08  2  1/09/97 10:14  1/10/97 14:33  Payroll Updates - Temp
     EYUFIL09  1  1/09/97 10:06  1/09/97 10:06  Employee Database
```

Figure 44. The FILEDEF view

Action commands

Table 15 summarizes the action commands you can use with the FILEDEF view.

Table 15. FILEDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a file definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of file definitions, as described on page 73.
n/a	BRO	Browse a file definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 45 on page 132 through Figure 47 on page 136. All of the fields are nonmodifiable.
CREate	CRE	Create a file definition and add it to the data repository, as described on page 132.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a file in an active system, as described on page 76.
# # # # # # # # # # #		After installation of a FILEDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM FILE command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE FILE command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE FILE command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a file definition from the data repository, as described on page 80.

Table 15. FILEDEF view action commands (continued)

Primary command	Line command	Description
n/a	UPD	Update a file definition in the data repository. The format of the resulting panels is similar to that shown in Figure 45 through Figure 47 on page 136. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the FILEDEF view.

Creating a file definition

When you use the create primary (CREate) or line (CRE) action command from the FILEDEF view, a series of input panels is produced.

Figure 45 shows the format of the first panel produced when you want to create a file definition.

```
 COMMAND ===>
  Name          ===> EYUFIL08    Version  ===> 0
  Description   ===> Payroll Updates - Local
  RESGROUP      ===>
  User Data     ===>

 VSAM PARAMETERS
  Dsname                          Data set name
                ===> PAYROLL.EUTL3
                ===>

  Password      ===>              User access password
  Rlsaccess     ===> NO           CICS opens files in RLS mode (YES,NO)
  Lsrpoolid     ===> 1            Local shared resource pool (1-8, NONE, blank)
  Readintegrity ===> UNCOMMITTED  Read level (UNCOMMITTED,CONSISTENT,REPEATABLE)
  Dsnsharing    ===> ALLREQS      Dataset sharing (ALLREQS,MODIFYREQS)
  Strings       ===> 30           Concurrent file requests (1 - 255, blank)
  Nsrgroup      ===>              Group name for VSAM data set

 Press ENTER to update FILEDEF.
 Press UP or DOWN to view other screens
 Enter END or CANCEL to cancel wthout creating.
```

Figure 45. Creating a file definition - Page 1

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the file 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.

Dsname
> Specify the 1- to 44-character name of the data set to be used for the file. For CICS for OS/2 files, you can specify up to 60 characters, including the path and file name.

Password
> Specify a 1- to 8-character password to be used to verify 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 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.

Rlsaccess
> Specify YES or <u>NO</u> to indicate whether the file is to be opened in RLS mode.

Lsrpoolid
> Identify the LSR pool to be used by the VSAM data set associated with this file:
>
> **value** An LSR pool ID, in the range <u>1</u> through 8.
>
> **NONE**
> > The data set uses VSAM non-shared resources (NSR).
>
> If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Readintegrity
> If you specified YES in the RLS Access field, specify the level of read integrity required for the file:
>
> <u>**UNCOMMITTED**</u>
> > Records are read without read integrity.
> >
> > **Note:** UNCOMMITTED represents the same level of read integrity provided by releases of CICS that do not support the Readinteg attribute.
>
> **CONSISTENT**
> > Records are read with consistent read integrity.
>
> **REPEATABLE**
> > Records are read with repeatable read integrity.

Dsnsharing
> For VSAM files, indicate whether data set name sharing should be used:
>
> <u>**ALLREQS**</u>
> > Data set name sharing is set in the ACB when the file is opened and is 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.

Strings

> Specify the number of concurrent requests that can be processed against the file, in the range 1 through 255. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

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.

If the file definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 46 shows the format of the second file definition panel.
Provide the following information, as appropriate:

```
 COMMAND ===>
  Name              EYUFIL08    Version  ===> 0

 REMOTE ATTRIBUTES
  Remotename   ===>            Remote file name
  RemoteSystem ===>            SYSIDENT for Remote System
 REMOTE AND CFDATATABLE PARAMETERS
  Recordsize   ===>            Record size (1 - 32767, blank)
  Keylength    ===>            Key length (1 - 255, blank)
                                        (1 - 16 for CF Tables)
 INITIAL STATUS
  Status       ===> ENABLED    Status (ENABLED,DISABLED,UNENABLED)
  Opentime     ===> FIRSTREF   Open time (FIRSTREF, STARTUP)
  Disposition  ===> SHARE      File disposition (SHARE, OLD)
 NSR BUFFERS
  Databuffers  ===> 31         Number of data buffers (2-32767, blank)
  Indexbuffers ===> 30         Number of index buffers (1-32767, blank)


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

Figure 46. Creating a file definition - Page 2

Remotename

> (Optional.) If the file is held by a remote system, specify the 1- to 8-character name by which the file is known in the CICS system where it resides.

> If you specify a remote name, CICSPlex SM uses that name when assigning the file to a related system. If you specify a remote system but not a remote name, the local name (that is, the name of this file definition) is used in both the target and related systems.

RemoteSystem

> (Optional.) If the file is held by a remote system, specify the 1- to 4-character system ID of the CICS system where it resides.

> CICSPlex SM uses this system ID only if the file is part of a resource group that is directly associated with a resource description (via

RESINDSC). If the file is being assigned by a resource assignment (RASGNDEF), CICSPlex SM uses the actual CICS system ID of the related system.

Recordsize

Specify the maximum length of the logical record in bytes, in the range 1 through 32767. If you leave this field blank, there is no default value.

Keylength

Specify the length of the logical key in the range 1 through 255 bytes for remote files, and in the range 1 through 16 bytes for coupling facility data tables. If you leave this field blank, there is no default value; however, a key length must be specified in any application program that refers to the file.

Status Specify the initial status of the file following a CICS initialization with START=COLD:

ENABLED

Normal processing is allowed against this file.

DISABLED

Any request against this file from a command-level application program causes the DISABLED condition to be passed to the program.

UNENABLED

The file cannot be opened by an implicit open from an application program.

Opentime

Specify when the file should be opened:

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 (unless the status of the file is UNENABLED).

Disposition

Specify the disposition of the file:

SHARE

Equivalent to the DISP=SHR parameter in JCL.

OLD Equivalent to the DISP=OLD parameter in JCL.

Databuffers

Specify the number of buffers to be used for data, in the range 2 through 32767. This value must be at least one more than the number of strings specified in the Strings field. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Indexbuffers

Specify the number of buffers to be used for the index, in the range 1 through 32767. This value must be at least the number of strings specified in the Strings field. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

If the file definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 47 shows the format of the third file definition panel.
Provide the following information, as appropriate:

```
COMMAND ===>
 Name                    EYUFIL08    Version ===> 0

 DATATABLE PARAMETERS
  Table       ===> NO          Data table type (NO, CICS, USER, CF)
  Maxnumrecs  ===> NOLIMIT     Max entries in data table ...
                                   (NOLIMIT or 1-99,999,999)
 CFDATATABLE PARAMETERS
  Cfdtpool    ===>             Name of coupling facility data table pool
  Tablename   ===>             Data table name
  Updatemodel ===> LOCKING     Update model (LOCKING or CONTENTION)
  Load        ===> NOLOAD      Whether this file loads table (LOAD or NOLOAD)
 RECORD FORMAT
  Recordformat ===> VARIABLE   Record format (VARIABLE, FIXED)


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

Figure 47. Creating a file definition - Page 3

Table Indicate the type of data table that is required for the file:

NO No data table is required.

CICS CICS-maintained data tables, which automatically reflect all modifications to their source data set. If you specify CICS, you must also specify Lsrpoolid with a value of 1 through 8, and Maxnumrecs with the value you require.

USER User-maintained tables, which remain independent of their source data sets. If you specify USER, you must also specify Lsrpoolid with a value of 1 through 8, Recordformat as VARIABLE, and Maxnumrecs with the value you require.

CF Coupling facility data tables. If you specify CF, you must also specify Lsrpoolid with a value 1 through 8, Keylength with a value 1 through 16, and maxnumrecs with the value you require.

Maxnumrecs
Specify the maximum number of records the data table can contain:

NOLIMIT
No limit is placed on the number of records the table can contain.

value For CICS, USER, or CF data tables, specify the maximum number of entries in the data table, in the range 1 through 99 999 999.

CFDTPOOL
Specify the 1- to 8- character name of a coupling facility data table pool containing the coupling facility data table (CFDT) to which this file refers. This attribute is required if you specify TABLE(CF).

TABLENAME
Specify the 1- to 8- name of the CFDT 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.

UPDATEMODEL
Specify the type of update model to be used for a CFDT:

LOCKING
The CFDT is updated using the locking model.

CONTENTION
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.

LOAD(NO|YES)
Specify whether the CFDT is to be loaded from a source data set when first opened.

NO The CFDT does not need to be loaded from a source data set, and can be used by application programs as soon as it is open.

YES The CFDT has to be loaded from a source data set before it is fully usable.

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.

Recordformat
Specify the format of the records on the file:

VARIABLE
The records are variable length.

FIXED
The records are fixed length.

If the file definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 48 shows the format of the fourth file definition panel.

```
COMMAND ===>
 Name                  EYUFIL08    Version0

 OPERATIONS
  Add          ===> YES       Records can be added to file (YES,NO)
  Browse       ===> YES       Records retrieved sequentially (YES,NO)
  Delete       ===> YES       Records can be deleted (YES,NO)
  Read         ===> YES       Records can be read (YES, NO)
  Update       ===> YES       Records can be updated (YES,NO)
 AUTO JOURNALLING
  Journal      ===>           Journal number (NO, 1-99, blank)
  Jnlread      ===> NONE      Read ops in jrnl (NONE,ALL,READONLY,UPDATEONLY)
  Jnlsyncread  ===> NO        Auto journaling for read (YES,NO)
  Jnlupdate    ===> NO        Rewrite/Delete oprs record on jrnl (YES,NO)
  Jnladd       ===> NONE      Add ops recorded on jrnl(NONE,AFTER,ALL,BEFORE)
  Jnlsyncwrite ===> YES       Auto journaling for write (YES,NO)


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

Figure 48. Creating a file definition - Page 4

Provide the following information, as appropriate:

FILEDEF

Add   Specify YES or <u>NO</u> to indicate whether records can be added to the file.

Browse

Specify YES or <u>NO</u> to indicate whether records can be retrieved sequentially from the file.

Delete Specify YES or <u>NO</u> to indicate whether records can be deleted from the file.

Read   Specify YES or <u>NO</u> to indicate whether records on the file can be read.

Update

Specify YES or <u>NO</u> to indicate whether records on the file can be updated.

Journal

Indicate whether you want automatic journaling for the file:

<u>NO</u>   No automatic journaling for the file.

value   The ID of the journal to be used for automatic journaling, 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.

Jnlread

Identify the read operations you want recorded on the journal specified in the Journal field:

<u>NONE</u>

Do not journal read operations.

ALL   Journal all read operations.

READONLY

Journal only READ ONLY operations (not READ UPDATE operations).

UPDATEONLY

Journal only READ UPDATE operations (not READ ONLY operations).

Jnlsyncread

Specify YES or <u>NO</u> to indicate whether you want the automatic journaling records that are written for READ operations to be written synchronously.

Jnlupdate

Specify YES or <u>NO</u> to indicate whether you want REWRITE and DELETE operations recorded on the journal specified in the Journal field.

Jnladd

Identify the add operations you want recorded on the journal specified in the Journal field:

<u>NONE</u>

Do not journal add operations.

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.

Jnlsyncwrite

Specify <u>YES</u> or NO to indicate whether you want the automatic journaling records that are written for WRITE operations to be written synchronously.

If the file definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 49 shows the format of the fifth file definition panel.

```
 COMMAND ===>
  Name                   EYUFIL08    Version  ===> 0



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




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

Figure 49. Creating a file definition - Page 5

Provide the following information, as appropriate:

Recovery

Identify the type of recovery to be done for the file:

<u>NONE</u>

No recovery logging for the file.

ALL   Log before images to the system log, and after images to the journal specified in the Fwdrecovlog field.

BACKOUTONLY

Log before images to the system log.

Fwdrecovlog

For files with a Recovery value of ALL, specify which journal you want the after images for forward recovery written to:

<u>NO</u>   No journaling of after images.

value   The ID of the journal to be used for after images, 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.

Backuptype

For VSAM files, indicate whether the file is eligible for backup while open for update:

STATIC

File is not eligible for backup while open for update.

DYNAMIC

File is eligible for backup while open for update, provided you specify ALL in the Recovery field.

Ressecnum

For CICS/ESA 3.3 systems, specify 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.

For systems running a version of CICS other than CICS/ESA 3.3, leave this field blank.

If the file definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 50 shows the format of the sixth file definition panel. The fields on this panel apply only to systems running CICS for OS/2 2.0.1 and later.

```
  COMMAND ===>
   Name                    EYUFIL08     Version

   File Open       ===> Y           Open file at startup (Y, N, blank)
   File Enabled    ===> Y           Enable file (Y, N, blank)
   File Type       ===> K           Type of file (E, K, R, A, blank)
   File Access     ===> R           Access method (R, U, O, blank)
   Base File Name  ===>             Alternate index base file
   Key Number      ===>             Access key for base file (1-99, blank)
   Min Record Len  ===>             Minimum record length (1-4090, blank)
   Max Record Len  ===>             Maximum record length (1-32767, blank)
   CI Size         ===>             Control interval size (512-4096, blank)
   Ext File Mgr    ===> N           Use external file manager (Y, N, blank)

   FSEG Def Name   ===>             File key segment definition
   FSEG Def Ver    ===>             File key segment def version (1-15, blank)

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

Figure 50. Creating a file definition - Page 6

Provide the following information, as appropriate:

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:

Type	Maximum
A	N/A
E	32762 bytes
K	32767 bytes
R	Minimum record length

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.

To add the file definition to the data repository, press Enter.

FSEGDEF (File key segment 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

Availability

File key segments can be defined for systems running CICS for OS/2 2.0.1 and later.

Access

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 51, includes information about all existing file key segment definitions within the current context.

Select: FSEGDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                           SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
 W1 ==FSEGDEF=======EYUPLX01=EYUPLX01===26MAR1999==11:30:30=CPSM======3==
 CMD Name     Ver   Created        Changed        Description
 --- -------  ---  -------------  -------------  ------------------------
     EYUFSG01   1  1/09/97 10:02  1/09/97 10:02  Key Segs for EYUFIL12
     EYUFSG01   2  1/09/97 10:14  1/10/97 14:33  Key Segs for EYUFIL12
     EYUFSG02   1  1/09/97 10:06  1/09/97 10:06  Test Key Segs
```

Figure 51. The FSEGDEF view

Action commands

Table 16 on page 143 summarizes the action commands you can use with the FSEGDEF view.

Table 16. FSEGDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a file key segment definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of file key segment definitions, as described on page 73.
n/a	BRO	Browse a file key segment definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 52 on page 144. All of the fields are nonmodifiable.
CREate	CRE	Create a file key segment definition and add it to the data repository, as described on page 143.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a file key segment definition from the data repository, as described on page 80.
n/a	UPD	Update a file key segment definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 52 on page 144. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the FSEGDEF view.

Creating a file key segment definition

When you use the create primary (CREate) or line (CRE) action command from the FSEGDEF view, a series of input panels is produced.

Figure 52 on page 144 shows the format of the first panel produced when you want to create a file key segment definition.

FSEGDEF

```
 COMMAND  ===>
   Name          ===> EYUFSG01    Version ===> 0
   Description   ===> Key Segs for EYUFIL12
   RESGROUP      ===>
   User Data     ===>

   Key Segments:
           Pos     Len    Dup    Mod    Bin    Nc     Sg     Alt    Nul
   01  ===> 000    002    Y      N      Y      N      Y      N      000
   02  ===> 002    004    Y      N      N      N      Y      N      000
   03  ===> 006    002    Y      N      Y      N      N      N      000
   04  ===>
   05  ===>
   06  ===>
   07  ===>
   08  ===>
   09  ===>
   10  ===>

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

Figure 52. Creating a file key segment definition - Page 1

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.

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.

JRNLDEF (Journal definitions)

Journal definitions describe the CICS system log and user journals.

Availability

Journals can be defined for all managed CICS systems except:
* CICS TS for OS/390
* CICS for OS/2 systems.

Access

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 53, includes information about all existing journal definitions within the current context.

Select: JRNLDEF from the ADMRES menu.

```
 26MAR1999-11:30:30 --------- INFORMATION DISPLAY ----------------------
COMMAND ===>                                       SCROLL ===> PAGE
CURR WIN ===> 1         ALT WIN ===>
 W1 ==JRNLDEF========EYUPLX01=EYUPLX01==26MAR1999==11:30:30=CPSM======3==
CMD ID        Ver  Created        Changed        Description
--- --------  ---  --------------  --------------  ----------------------
    1           1  1/09/97 11:53   1/09/97 11:56   System Log
   98           1  1/09/97 11:59   1/09/97 11:59   Secondary User Log
   99           1  1/09/97 12:04   1/09/97 12:04   Primary User Log
```

Figure 53. The JRNLDEF view

Action commands

Table 17 on page 146 summarizes the action commands you can use with the JRNLDEF view.

Table 17. JRNLDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a journal definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of journal definitions, as described on page 73.
n/a	BRO	Browse a journal definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 54 on page 147. All of the fields are nonmodifiable.
CREate	CRE	Create a journal definition and add it to the data repository, as described on page 146.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a journal in an active system, as described on page 76.
		After installation of a JRNLDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM JOURNAL command; see *CICSPlex SM 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*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a journal definition from the data repository, as described on page 80.
n/a	UPD	Update a journal definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 54. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the JRNLDEF view.

Creating a journal definition

Figure 54 on page 147 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the JRNLDEF view.

```
COMMAND  ===>
 Name            ===> 99        Version ===>1
 Description     ===> Primary User Log
 RESGROUP        ===>
 User Data       ===>

 JournalType     ===> DISK1      Journal type (DISK1,DISK2,TAPE1,TAPE2,SMF)
 BufferSize      ===>            I/O buffer size (512 - 32760)
 Label           ===> NO         Tape label (NO, STANDARD)
 Layout          ===> LINEAR     Journal structure type (LINEAR, CYCLIC)
 Open            ===> INITIAL    Open time (INITIAL, DEFERRED)
 Syswait         ===> STARTIO    I/O initiate time (STARTIO, ASIS)
 VolCnt          ===> 2          Number of tape vols in cycle (2-255, blank)
 Archstatus      ===> NOAUTOARCH Autoarchiving (AUTOARCH,NOAUTOARCH,REVERTED)
 Crucial         ===> NO         Option for I/O errors (NO, YES)
 Retry           ===> NO         Retry I/O errors (NO, YES)
 Pause           ===> NO         Oper authority required (NO, YES)
 EmergencyRstrt ===> LRU         Emergency restart data set (LRU, EXTA)
 OpenStatus      ===> CLOSED     Output status (OPEN, CLOSED)


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

Figure 54. Creating a journal definition

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.

JRNLDEF

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:

<u>NO</u>   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:

<u>LINEAR</u>

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:

<u>INITIAL</u>

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:

<u>STARTIO</u>

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 <u>2</u> 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:

<u>NOAUTOARCH</u>

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 <u>NO</u> 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 <u>NO</u> to indicate whether I/O errors are to be automatically retried on a new output volume.

Pause Specify YES or <u>NO</u> 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:

<u>LRU</u> Logging continues on the less recently used data set.

EXTA DFHJ01A is used.

OpenStatus
Specify OPEN or <u>CLOSED</u> to indicate whether the journal should be open for output.

To add the journal definition to the data repository, press Enter.

JRNMDEF (Journal model 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.

Availability

Journal models can be defined for systems running the CICS TS for OS/390 Release 1 and later.

Access

\# 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 55 on page 150, includes information about all existing journal model definitions within the current context.

| **Select:** JRNMDEF from the ADMRES menu.

```
   26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
  COMMAND  ===>                                          SCROLL ===> PAGE
  CURR WIN ===> 1         ALT WIN ===>
   W1 ==JRNMDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
  CMD Name     Ver   Created         Changed       Description
  --- -------- --- -------------- -------------- --------------------
      EYUJNM01   1  1/09/97 12:12  1/09/97 12:12  Journal 1 - MVS
      EYUJNM01   2  1/10/97 14:20  1/10/97 14:20  Journal 1 - MVS
      EYUJNM99   1  1/09/97 12:19  1/09/97 12:22  Journal 99 - SMF
```

Figure 55. The JRNMDEF view

Action commands

Table 18 summarizes the action commands you can use with the JRNMDEF view.

Table 18. JRNMDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a journal model definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of journal model definitions, as described on page 73.
n/a	BRO	Browse a journal model definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 56 on page 151. All of the fields are nonmodifiable.
CREate	CRE	Create a journal model definition and add it to the data repository, as described on page 151.
n/a	INS	For CICS Transaction Server for OS/390 Release 1 and later, install a journal model in an active system, as described on page 76.
		After installation of a JRNMDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM JRNLMODL command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE JOURNALMODEL command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE JMODEL command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a journal model definition from the data repository, as described on page 80.

Table 18. JRNMDEF view action commands (continued)

Primary command	Line command	Description
n/a	UPD	Update a journal model definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 56. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the JRNMDEF view.

Creating a journal model definition

Figure 56 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the JRNMDEF view.

```
COMMAND  ===>
  Name           ===> EYUJNM01    Version ===> 1
  Description    ===> Journal 1 - MVS
  RESGROUP       ===>
  User Data      ===>

  JournalName    ===>             Journal Model Name
  LogStreamType  ===> MVS         Log stream type (MVS, SMF, DUMMY)
  StreamName                      MVS Log Stream Name
                 ===>


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

Figure 56. Creating a journal model definition

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the journal model 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 journal model.

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 model. CICSPlex SM makes no use of this user data.

JournalName
> (Optional.) Enter the specific or generic name of the journal, or journals, to which this definition applies. If you do not specify a value, the journal model name is used.

LogStreamType

Specify where the journal records are to be written:

MVS Records are written to the MVS system logger log stream identified in the StreamName field.

DUMMY

No log records are written.

SMF Records are written in SMF format to the MVS SMF log.

Note: You cannot specify SMF for either the system log or forward recovery logs.

StreamName

(Optional.) For journal models with a LogStreamType value of MVS, specify the MVS system logger log stream name or a template from which the log stream name can be constructed.

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 template can be made up of one or more symbolic names:

&APPLID.

Symbolic name for the CICS system APPLID as defined on the system initialization parameter.

&JNAME.

Symbolic name for a journal name that references, either by specific or generic match, this journal model definition.

&USERID.

Symbolic name for the CICS system user ID.

The default log stream name is &USERID..&APPLID..&JNAME.

To add the journal model definition to the data repository, press Enter.

LSRDEF (LSR pool definitions)

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

Availability

LSR pools can be defined for all managed CICS systems except:
- CICS/MVS 2.1.2
- CICS for OS/2 systems.

Access

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 57, includes information about all existing LSR pool definitions within the current context.

| **Select:** LSRDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
  W1 ==LSRDEF=========EYUPLX01=EYUPLX01==26MAR1999==11:30:30=CPSM======3==
 CMD Name     Ver   Created        Changed       Description
 --- -------- ---   -------------  ------------- --------------------
     EYULSR01   1   1/09/97 12:44  1/09/97 12:44  LSR Pool 1
     EYULSR01   2   1/10/97 15:30  1/10/97 15:30  LSR Pool 1 - Test
     EYULSR02   1   1/09/97 12:51  1/09/97 12:51  LSR Pool 2
```

Figure 57. The LSRDEF view

Action commands

Table 19 summarizes the action commands you can use with the LSRDEF view.

Table 19. LSRDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add an LSR pool definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of LSR pool definitions, as described on page 73.
n/a	BRO	Browse an LSR pool definition in the data repository. The format of the resulting panels is similar to that shown in Figure 58 on page 155 and Figure 59 on page 156. All of the fields are nonmodifiable.
CREate	CRE	Create an LSR pool definition and add it to the data repository, as described on page 154.

Table 19. LSRDEF view action commands (continued)

Primary command	Line command	Description
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install an LSR pool in an active system, as described on page 76.
		After installation of a LSRDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM LSRPOOL command; see *CICSPlex SM Operations Views Reference*.
		• There is no CICS CEMT INQUIRE command for LSR pools.
		• There is no EXEC CICS INQUIRE command for LSR pools.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove an LSR pool definition from the data repository, as described on page 80.
n/a	UPD	Update an LSR pool definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 58 and Figure 59 on page 156. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the LSRDEF view.

Creating an LSR pool definition

When you use the create primary (CREate) or line (CRE) action command from the LSRDEF view, a series of input panels is produced.

Figure 58 on page 155 shows the format of the first panel produced when you want to create an LSR pool definition.

```
COMMAND  ===>
 Name            ===> EYULSR01   Version ===> 1
 Description     ===> LSR Pool 1
 RESGROUP        ===>
 User Data       ===>

 LSRpoolid       ===> 1           LSR pool ID (1-8, blank)
 Maxkeylength    ===>             Maximum key length (0-255, blank)
 Sharelimit      ===> 50          Resource share limit (1-100, blank)
 Strings         ===>             Maximum File Strings (1-255, blank)

 DATA BUFFER SIZES (3-32767,blank):  DATA512 ===>        DATA1K  ===>
              DATA2K  ===>            DATA4K  ===>        DATA8K  ===>
              DATA12K ===>            DATA16K ===>        DATA20K ===>
              DATA24K ===>            DATA28K ===>        DATA32K ===>
 INDEX BUFFER SIZES (3-32767,blank): INDX512 ===>        INDX1K  ===>
              INDX2K  ===>            INDX4K  ===>        INDX8K  ===>
              INDX12K ===>            INDX16K ===>        INDX20K ===>
              INDX24K ===>            INDX28K ===>        INDX32K ===>

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

Figure 58. Creating an LSR pool definition - Page 1

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the LSR 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 LSR pool.

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 LSR pool. CICSPlex SM makes no use of this user data.

LSRpoolid

Specify the ID of the LSR pool, 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

Specify the maximum key length of any of the files that are to share resources, in the range 0 through 255. If you leave this field blank, CICS determines the maximum key length.

Sharelimit

Specify what percentage of the maximum amount of available VSAM resources should be allocated, in the range 1 through 100. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Strings

Specify the maximum number of file strings in the pool, in the range 1 through 255. If you leave this field blank, there is no default value.

Data Buffer Sizes

Specify the number of data buffers of each size that you require, in the range 3 through 32767. If you leave these fields blank, there are no default values.

Index Buffer Sizes

Specify the number of index buffers of each size that you require, in the range 3 through 32767. If you leave these fields blank, there are no default values.

If the LSR pool definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 59 shows the format of the second LSR pool definition panel.

```
COMMAND  ===>
 Name            EYULSR01      Version ===> 1


 HIPERSPACE DATA BUFFER SIZES:  (0 - 16777215, blank)
  HSDB4K  ===>               HSDB8K  ===>          HSDB12K ===>
  HSDB16K ===>               HSDB20K ===>          HSDB24K ===>
  HSDB28K ===>               HSDB32K ===>


 HIPERSPACE INDEX BUFFER SIZES: (0 - 16777215, blank)
  HSIX4K  ===>               HSIX8K  ===>          HSIX12K ===>
  HSIX16K ===>               HSIX20K ===>          HSIX24K ===>
  HSIX28K ===>               HSIX32K ===>




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

Figure 59. Creating an LSR pool definition - Page 2

Provide the following information, as appropriate:

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.

To add the LSR pool definition to the data repository, press Enter.

MAPDEF (Map set definitions)

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

Availability

Map sets can be defined for all managed CICS systems except CICS for OS/2 systems.

Access

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 60, includes information about all existing map set definitions within the current context.

| **Select:** MAPDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                            SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 ==MAPDEF=========EYUPLX01=EYUPLX01==26MAR1999==11:30:30=CPSM======3===
 CMD Name     Ver   Created         Changed       Description
 --- -------  ---  -------------  -------------  ------------------------
     EYUMAP01  1  1/09/97 13:01   1/09/97 13:01  Payroll Map Set
     EYUMAP02  1  1/09/97 13:07   1/09/97 13:07  Employee Database Map Set
     EYUMAP02  2  1/09/97 13:15   1/09/97 13:15  Employee Database Map Set
```

Figure 60. The MAPDEF view

Action commands

Table 20 summarizes the action commands you can use with the MAPDEF view.

Table 20. MAPDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a map set definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of map set definitions, as described on page 73.
n/a	BRO	Browse a map set definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 61 on page 159. All of the fields are nonmodifiable.

Table 20. MAPDEF view action commands (continued)

Primary command	Line command	Description
CREate	CRE	Create a map set definition and add it to the data repository, as described on page 158.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a map set in an active system, as described on page 76.
# # # # # # # # # # # #		After installation of a MAPDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM PROGRAM command; see *CICSPlex SM Operations Views Reference* • The CICS CEMT INQUIRE PROGRAM command; see *CICS Supplied Transactions* • The EXEC CICS INQUIRE PROGRAM command; see *CICS System Programming Reference*
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a map set definition from the data repository, as described on page 80.
n/a	UPD	Update a map set definition in the data repository. The format of the resulting panel is similar to that shown in Figure 61. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the MAPDEF view.

Creating a map set definition

Figure 61 on page 159 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the MAPDEF view.

```
COMMAND  ===>
 Name          ===> EYUMAP01  Version ===> 1
 Description   ===> Payroll Map Set
 RESGROUP      ===>
 User Data     ===>

 Resident      ===> NO        Resident status (NO, YES)
 Usage         ===> NORMAL    Storage release (NORMAL, TRANSIENT)
 UseLPAcopy    ===> NO        Map set used from LPA (NO, YES)
 Status        ===> ENABLED   Map set status (ENABLED, DISABLED)
 Rsl           ===> 0         Resource security value (0-24,PUBLIC,blank)



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

Figure 61. Creating a map set definition

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the map 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 map set.

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

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

Resident
> Specify YES or NO to indicate whether the map set is to be permanently
> resident in virtual storage.

Usage   Indicate when the storage for this map set should be released:

> **NORMAL**
> > When the use count of the map set reaches zero, it becomes eligible
> > for removal from storage as part of the normal dynamic storage
> > compression process.

> **TRANSIENT**
> > When the use count of the map set reaches zero, the storage is
> > released.

UseLPAcopy
> Indicate whether the map set is to be used from the link pack area (LPA):

> **NO**   The map set is not used from the LPA; it is loaded into the CICS
> address space.

> **YES**   The map set can be used from the LPA, if LPA=YES is coded as a
> CICS system initialization parameter.

Status   Indicate whether the map set is ENABLED or DISABLED for use.

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.

To add the map set definition to the data repository, press Enter.

PARTDEF (Partner definitions)

Partner definitions enable CICS application programs to communicate via APPC protocols with a partner application program running on a remote logical unit.

Availability

Partners can be defined for CICS/ESA 3.3 and later systems, and CICS Transaction Server for VSE/ESA Release 1 and later systems.

Access

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 62, includes information about all existing partner definitions within the current context.

Select: PARTDEF from the ADMRES menu.

```
 26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
COMMAND  ===>                                         SCROLL ===> PAGE
CURR WIN ===> 1         ALT WIN ===>
 W1 ==PARTDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM=====2==
CMD Name     Ver   Created          Changed        Description
--- -------- --- -------------- -------------- ----------------------
    EYUPRT01   1  1/09/97 13:25   1/09/97 13:25
    EYUPRT01   2  1/10/97 07:50   1/10/97 07:50
```

Figure 62. The PARTDEF view

Action commands

Table 21 on page 161 summarizes the action commands you can use with the PARTDEF view.

Table 21. PARTDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a partner definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of partner definitions, as described on page 73.
n/a	BRO	Browse a partner definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 63 on page 162. All of the fields are nonmodifiable.
CREate	CRE	Create a partner definition and add it to the data repository, as described on page 161.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a partner in an active system, as described on page 76.
		After installation of a PARTDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM PARTNER command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE PARTNER command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE PARTNER command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a partner definition from the data repository, as described on page 80.
n/a	UPD	Update a partner definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 63. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the PARTDEF view.

Creating a partner definition

Figure 63 on page 162 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the PARTDEF view.

```
  COMMAND  ===>
  Name      ===> EYUPRT01      Version ===> 1
  Description ===>
  RESGROUP    ===>
  User Data   ===>

  NetName     ===>              Netname in CONNECTION definition
  Network     ===>              Network name

  Profile     ===> DFHCICSA     Profile name

  TPname                        Remote trasaction program name
              ===>
              ===>
  XTPname                       Alternative TPname
              ===>
              ===>
              ===>
              ===>


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

Figure 63. Creating a partner definition

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character, alphanumeric name for the partner 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 partner.

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 partner. CICSPlex SM makes no use of this user data.

NetName
       Specify the 1- to 8-character NetName value that you supplied in the
       associated connection definition (CONNDEF).

Network
       (Optional.) Specify the 1- to 8-character name of the network on which the
       partner LU is located.

Profile
       Specify the 1- to 8-character name of the communication profile to be used
       for the session and conversation. (The default is DFHCICSA.)

TPname
       Specify 1 to 64 alphanumeric or national characters for the name of the
       remote transaction program that will run on the partner LU.

       Note: You must supply a value for either TPname or its alternative,
               XTPname.

XTPname

As an alternative to TPname, specify a hexadecimal string of up to 128 characters for the name of the remote transaction program that will run on the partner LU. All hexadecimal combinations are acceptable except X'40'.

To add the partner definition to the data repository, press Enter.

PROCDEF (Process type definitions)

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

Availability

Process types can be defined for CICS Transaction Server for OS/390 Release 3 and later systems.

Access

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 64, includes information about all existing process type definitions within the current context.

Select: PROCDEF from the ADMRES menu.

```
   26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
  COMMAND  ===>                                             SCROLL ===> PAGE
  CURR WIN ===> 1         ALT WIN ===>
   W1 ==PROCDEF=======EYUPLX01=EYUPLX01===26MAR1999==11:30:30=CPSM======2==
  CMD Name    Ver   Created          Changed        Description
  --- ------- ---  --------------   --------------  ------------------------
      EYUPTP08  1  1/09/98 10:02    1/09/98 10:02   Processtype for SALES pr
      EYUPTP08  2  1/09/98 10:14    1/10/98 14:33   Processtype for GOODS pr
```

Figure 64. The PROCDEF view

Action commands

Table 22 summarizes the action commands you can use with the PROCDEF view.

Table 22. PROCDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a process type definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of processtype definitions, as described on page 73.

Table 22. PROCDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a process type definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 65 on page 165. All of the fields are nonmodifiable.
CREate	CRE	Create a process type definition and add it to the data repository, as described on page 132.
n/a	INS	For systems running CICS TS for OS/390 Release 3 and later, install a process type in an active system, as described on page 76.
		After installation of a PROCDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM PROCTYP command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE PROCESSTYPE command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE PROCESSTYPE command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a process type definition from the data repository, as described on page 80.
n/a	UPD	Update a process type definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 65. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the PROCDEF view.

Creating a process type definition

When you use the create primary (CREate) or line (CRE) action command from the PROCDEF view, a series of input panels is produced.

Figure 65 on page 165 shows the format of the first panel produced when you want to create a process type definition.

```
COMMAND ===>
 Name          ===> EYUPTP08    Version  ===> 1
 Description   ===> Processtype for SALES processes
 RESGROUP      ===>
 User Data     ===>

 Status        ===> ENABLED     Enabled|Disabled
 File          ===>             RLS File name
 Auditlog      ===>             Name of Audit Log
 Auditlevel    ===> OFF         Off|Process|Activity|Full

 Press ENTER to update PROCDEF.
 Type END or CANCEL to cancel wthout creating.
```

Figure 65. Creating a process type definition

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the process type 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 process type.

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 process type. CICSPlex SM makes no use of this user data.

Status (Optional.) Specify the initial status of the process type.

DISABLED
Processes of this type cannot be defined.

ENABLED
Processes of this type can be defined.

File Specify a 1- to 8- name of the RLS file that this CICS BTS processtype uses for storing data.

Auditlog
Specify the 1- to 8-character name of the audit log used to record information about processes of this type. If you do not specify an audit log, no audit records will be kept for processes of this type.

Auditlevel
Specify the initial level of audit logging for processes of this type. If you do not specify the Auditlog option, any value you specify for the Auditlevel option has no meaning.

ACTIVITY
Activity-level auditing. Audit records are written from:

1. The process audit points
2. The activity primary audit points.

That is, an audit record is written:

- Whenever a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is acquired
  - Completes
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed

  and:
  - Each time data is placed in a process container belonging to a process of this type; that is, each time a PUT CONTAINER PROCESS or PUT CONTAINER ACQPROCESS command is issued against a process of this type.
  - Each time a process container belonging to a process of this type is deleted.
  - Each time a root activity (DFHROOT) of this type of process is activated.
- Every time a non-root activity belonging to a process of this type:
  - Is requested to link
  - Is activated
  - Completes

FULL Full auditing. Audit records are written from:

1. The process audit points
2. The activity primary *and* secondary audit points.

That is, an audit record is written:

- Whenever a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is acquired
  - Completes
  - Is reset
  - Is canceled
  - Is suspended
  - Is resumed

  and:
  - Each time data is placed in a process container belonging to a process of this type
  - Each time a process container belonging to a process of this type is deleted.
  - Each time a root activity (DFHROOT) of this type of process is activated.
- Every time a non-root activity belonging to a process of this type:
  - Is defined
  - Is requested to run
  - Is requested to link
  - Is activated

?   – Completes
?   – Is acquired
?   – Is reset
?   – Is canceled
?   – Is suspended
?   – Is resumed
?   – Is deleted.

?   **PROCESS**

?   Process-level auditing. Audit records are written from the process
?   audit points only. That is, an audit record is written whenever a
?   process of this type:

?   • Is defined

?   • Is requested to run

?   • Is requested to link

?   • Is acquired

?   • Completes

?   • Is reset

?   • Is canceled

?   • Is suspended

?   • Is resumed

?   and:

?   • Each time data is placed in a process container belonging to a
?   process of this type

?   • Each time a process container belonging to a process of this type
?   is deleted.

?   •

?   Each time a root activity (DFHROOT) of this type of process is
?   activated.

?   **OFF**   No audit trail records will be written.

?   To add the process type definition to the data repository, press Enter.

PROFDEF (Profile definitions)

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

Availability

Profiles can be defined for all managed CICS systems except CICS for OS/2
systems.

Access

?   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 66 on page 168, includes
information about all existing profile definitions within the current context.

PROFDEF

| Select: PROFDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 ==PROFDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
 CMD Name     Ver   Created         Changed       Description
 --- -------- ---  --------------  --------------  ----------------------
     EYUPRF01  1  1/09/97 13:36    1/09/97 13:36
     EYUPRF02  1  1/09/97 13:42    1/09/97 13:42
     EYUPRF03  1  1/09/97 13:48    1/09/97 13:48
```

Figure 66. The PROFDEF view

Action commands

Table 23 summarizes the action commands you can use with the PROFDEF view.

Table 23. PROFDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a profile definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of profile definitions, as described on page 73.
n/a	BRO	Browse a profile definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 67 on page 169 and Figure 68 on page 171. All of the fields are nonmodifiable.
CREate	CRE	Create a profile definition and add it to the data repository, as described on page 169.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a profile in an active system, as described on page 76.
		After installation of a PROFDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM PROFILE command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE PROFILE command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE PROFILE command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.

Table 23. PROFDEF view action commands (continued)

Primary command	Line command	Description
REMove *resdef version*	REM	Remove a profile definition from the data repository, as described on page 80.
n/a	UPD	Update a profile definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 67 and Figure 68 on page 171. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the PROFDEF view.

Creating a profile definition

When you use the create primary (CREate) or line (CRE) action command from the PROFDEF view, a series of input panels is produced.

Figure 67 shows the format of the first panel produced when you want to create a profile definition.

```
 COMMAND  ===>
  Name          ===> EYUPRF01  Version ===> 1
  Description   ===>
  RESGROUP      ===>
  User Data     ===>

  Scrnsize      ===> DEFAULT   Screen size (DEFAULT, ALTERNATE)
  Uctran        ===> NO        Uppercase translation (YES, NO)
  Modename      ===>           LOGMODE entry for session group
  Printercomp   ===> NO        Printer compatibility option (YES, NO)
  Journal       ===> NO        Journal Id (NO, 1-99, blank)
  Msgjrnl       ===> NO        Message journaling (NO, INPUT, OUTPUT, INOUT)
  Msginteg      ===> NO        Journal messages (YES, NO)
  Onewte        ===> NO        One write operation (YES, NO)
  Protect       ===> N/A       Output message recovery (YES, NO, N/A)
  Chaincontrol  ===> NO        Outbound chaining control (YES, NO)

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

Figure 67. Creating a profile definition - Page 1

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the profile 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 profile.

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 profile. CICSPlex SM makes no use of this user data.

Scrnsize
Specify which buffer size is to be used for a 3270 display or printer:

DEFAULT
If the associated TYPETERM definition has a nonzero ALTSCREEN or nonzero DEFSCREEN value, the default screen size mode is applied, using the erase write (EW) command.

ALTERNATE
If the associated TYPETERM definition has a nonzero ALTSCREEN value, the alternate screen size mode is applied, using the erase write alternate (EWA) command.

Note: The Scrnsize value is ignored if the associated TYPETERM definition has ALTSCREEN(0,0) and DEFSCREEN(0,0).

Uctran
For VTAM logical units, specify YES or NO to indicate whether terminal input is to be translated to uppercase before passing to programs for the transaction using this profile.

Modename
Specify the 1- to 8-character name of a VTAM LOGMODE entry that identifies a group of sessions for use on an APPC connection.

Printercomp
Specify the level of compatibility required for the generation of data streams to support the printer compatibility option of the BMS SEND TEXT command:

NO   Each line of output starts with a blank character, so that the format is equivalent to that on a 3270 display where an attribute byte precedes each line.

YES   No blank character is inserted, so that forms-feed characters included as the first character are honored and the full width of the printer is available for your data.

Journal
Indicate whether you want automatic journaling of messages to occur:

NO   No automatic journaling of messages.

value The ID of the journal to be used for automatic journaling, 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.

Msgjrnl
Indicate which messages are to be automatically journaled:

NO   No message journaling required.

INOUT

Perform journaling for both input and output messages.

INPUT

Perform journaling only for input messages.

OUTPUT

Perform journaling only for output messages.

Msginteg

For SNA logical units, specify YES or NO to indicate whether a definite response is to be requested with an output request to a logical unit.

Onewte

Specify YES or NO to indicate if the transaction is permitted only one write operation or EXEC CICS SEND during its execution.

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.

Chaincontrol

Specify YES or NO to indicate whether the application program can control the outbound chaining of request units.

If the profile definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 68 shows the format of the second profile definition panel.
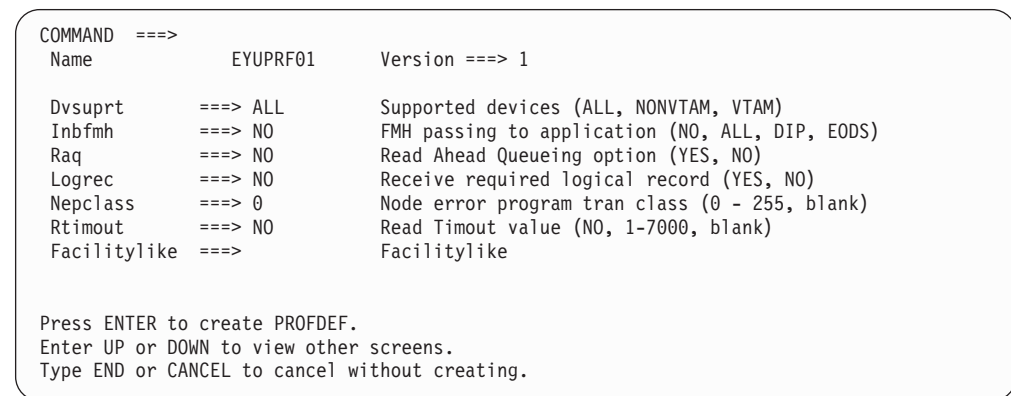
```
COMMAND  ===>
 Name              EYUPRF01       Version ===> 1

 Dvsuprt        ===> ALL          Supported devices (ALL, NONVTAM, VTAM)
 Inbfmh         ===> NO           FMH passing to application (NO, ALL, DIP, EODS)
 Raq            ===> NO           Read Ahead Queueing option (YES, NO)
 Logrec         ===> NO           Receive required logical record (YES, NO)
 Nepclass       ===> 0            Node error program tran class (0 - 255, blank)
 Rtimout        ===> NO           Read Timeout value (NO, 1-7000, blank)
 Facilitylike   ===>              Facilitylike


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

Figure 68. Creating a profile definition - Page 2

Provide the following information, as appropriate:

Dvsuprt

Identify 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 VTAM logical units.

Inbfmh

For SNA logical units, specify whether a function management header (FMH) received from a logical unit is to be passed to the application program:

NO The FMHs are discarded.

ALL All FMHs (except APPC FMHs and LU 6.1 ATTACH and SYNCPOINT FMHs that are processed by CICS) are passed to the application program.

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).

Raq For SNA terminals, specify YES or NO to indicate whether the 'read ahead queuing' option is required.

Logrec

Specify YES or NO to indicate whether the design of the application requires that each EXEC CICS RECEIVE request be satisfied by a logical record.

Nepclass

For VTAM logical units, identify the node error program transaction class:

0 Link to the default node error program module.

value Transaction class for the node error program module, in the range 1 through 255.

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

Rtimout

Specify the time-out value for the read time-out feature:

NO The read time-out feature is not required.

value An interval of minutes and seconds (mmss) after which the task terminates if no input has been received from the terminal. The maximum Rtimout value is 70 minutes (7000).

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

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 the 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.

If the CICS system has VTAM=NO in the SIT parameter file, the TERMDEF named in the Facilitylike field cannot be for a VTAM terminal, unless the TERMDEF is defined as REMOTE.

To add the profile definition to the data repository, press Enter.

PROGDEF (Program definitions)

Program definitions describe the control information for a program that is stored in the program library and used to process a transaction.

Availability

Programs can be defined for all managed CICS systems.

Access

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 69, includes information about all existing program definitions within the current context.

Select: PROGDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ------------------------
 COMMAND  ===>                                        SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
 W1 ==PROGDEF=========EYUPLX01=EYUPLX01=26MAR1999==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 69. The PROGDEF view

Action commands

Table 24 summarizes the action commands you can use with the PROGDEF view.

Table 24. PROGDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a program definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of program definitions, as described on page 73.
n/a	BRO	Browse a program definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 70 on page 175. All of the fields are nonmodifiable.
CREate	CRE	Create a program definition and add it to the data repository, as described on page 174.

Table 24. PROGDEF view action commands (continued)

Primary command	Line command	Description
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a program in an active system, as described on page 76.
		After installation of a PROGDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM PROGRAM command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE PROGRAM command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE PROGRAM command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a program definition from the data repository, as described on page 80.
n/a	UPD	Update a program definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 70. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the PROGDEF view.

Creating a program definition

Figure 70 on page 175 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the PROGDEF view.

```
 COMMAND  ===>
  Name          ===> EYUPRG01   Version ===> 1
  Description   ===> Weekly Payroll Run - Local
  RESGROUP      ===>
  User Data     ===>

  Language      ===> N/A        (ASSEMBLER, C, COBOL, LE370, PLI, RPG, N/A)
  Reload        ===> NO         New copy of program loaded (NO, YES)
  Resident      ===> NO         Residence status (NO, YES)
  Usage         ===> NORMAL     Storage release (NORMAL, TRANSIENT)
  Uselpacopy    ===> NO         Program used from LPA (NO, YES)
  Status        ===> ENABLED    Program status (ENABLED, DISABLED)
  Cedf          ===> NO         CEDF available (YES, NO)
  Datalocation  ===> BELOW      Data location (BELOW, ANY)
  Execkey       ===> USER       Program key (USER, CICS)
  Executionset  ===> FULLAPI    Program run mode (FULLAPI, DPLSUBSET)
  Remotesystem  ===>            CICS region for shipped DPL request
  Remotename    ===>            Program name in remote CICS region
  Transid       ===>            Tranid for remote CICS to attach
  Rsl           ===> 0          Resource security value (0-24,PUBLIC,blank)
  Dynamic       ===> NO         Dynamic routing (NO, YES)
  Concurrency   ===> QUASIRENT  Concurrency (N/A, QUASIRENT, THREADSAFE)
  JVM           ===> N/A        Java Virtual Machine (NO, YES, DEBUG)
  JVMClass                      Java Virtual Machine Class
                ===>
                ===>
                ===>
                ===>
                ===>
 Press ENTER to create PROGDEF.
 Type END or CANCEL to cancel without creating.
```

Figure 70. Creating a program definition

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the program 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 program.

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 program. CICSPlex SM makes no use of this user data.

Language

> Identify the program language:

> **N/A** CICS either determines what language is being used (for the CICS TS for OS/390) or defaults to COBOL.

> **ASSEMBLER**
> > An Assembler language program.

> **COBOL**
> > An OS/VS COBOL or VS COBOL II program.

C A C/370™ program not compiled by a Language Environment®/370-enabled compiler.

LE370 The program either exploits multi-language support or has been compiled by the Language Environment/370-enabled compiler.

PLI A PL/I program.

RPG For CICS/MVS 2.1.2 systems, an RPG program.

Reload
Specifies whether a program control link, load, or XCTL request is to bring in a fresh copy of the program:

NO Any valid copy of the program currently in storage is reused for the request.

Yes A fresh copy of the program is brought into storage for every request.

Resident
Specifies the resident status of the program:

NO The program is not to be permanently resident. This value must be specified if the Reload field contains Yes.

YES The program is to be loaded on first reference and is then to be permanently resident in virtual storage.

Usage Indicate when the storage for this program should be released:

NORMAL
When the use count of the program reaches zero, it becomes eligible for removal from storage as part of the normal dynamic storage compression process.

TRANSIENT
When the use count of the program reaches zero, the storage is released.

UseLPAcopy
Indicate whether the program is to be used from the link pack area (LPA):

NO The program is not 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 coded as a CICS system initialization parameter.

Status Indicate whether the program is ENABLED or DISABLED for use.

Cedf Specify the action of the execution diagnostic facility (EDF) when the program is running under EDF control:

NO The EDF diagnostic screens are not displayed.

YES The diagnostic screens are displayed.

Datalocation
Specify the preferred location of any data returned to the program:

BELOW
The program can handle only 24-bit addresses. The address of the data must be below the 16MB line.

ANY The program can handle 31-bit addresses. The address of the data can be above or below the 16MB line.

Execkey

Indicate the key in which CICS gives control to the program:

CICS CICS is to give control to the program in CICS key when it is invoked.

<u>USER</u> CICS is to give control to the program in user key when it is invoked.

Executionset

Indicate whether you want CICS to link to and run a program as if it were running in a remote CICS system:

<u>FULLAPI</u>

CICS links to the program and runs it without the API restrictions of a distributed program link (DPL) request. The program can use the full CICS API.

DPLSUBSET

CICS links to the program and runs it with the API restrictions of a remote DPL program.

Remotesystem

(Optional.) If you want CICS to ship a DPL request to another CICS system, specify the 1- to 4-character system ID of the remote system. This value must be the name of the connection definition (CONNDEF) for the link to the remote system.

CICSPlex SM uses this system ID only if the program is part of a resource group that is directly associated with a resource description (via RESINDSC). If the program is being assigned by a resource assignment (RASGNDEF), CICSPlex SM uses the actual CICS system ID of the related system.

Remotename

(Optional.) Specify the 1- to 8-character name by which the program is known in the remote CICS system.

If you specify a remote name, CICSPlex SM uses that name when assigning the program to a related system. If you specify a remote system but not a remote name, the local name (that is, the name of this program definition) is used in both the target and related systems.

Transid

Specify the name of the transaction you want the remote CICS system to attach, and under which it is to run the remote program. For dynamic routing of program link requests, the transaction id is obtained as follows:

- The TRANSID specified in the EXEC CICS LINK command takes precedence over the value in this field.
- If a TRANSID is not specified in the EXEC CICS LINK command, the value in this field is used. If you specify a transaction id, the transaction definition should specify the mirror program DFHMIRS. See "TRANDEF (Transaction definitions)" on page 213.
- If there is no TRANSID in the EXEC CICS LINK command and this field blank, the default mirror transaction CSMI is used.

Rsl For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the program:

<u>0</u> 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.

Dynamic

Specify whether an EXEC CICS LINK to this program may invoke dynamic routing.

YES The program is eligible for dynamic routing.

NO (Default.) The program is not eligible for dynamic routing.

Concurrency

Specify whether the program is written to threadsafe standards, or is only quasi-reentrant.

N/A The CONCURRENCY option is to be taken from the LE runtime options or a program autoinstall exit.

QUASIRENT

The program is only quasi-reentrant, and relies on the serialization provided by CICS when accessing shared resources. The program is restricted to the permitted programming interfaces, and must comply with the CICS quasi-reentrancy rules.

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 an open API task-related user exit, or when it interacts with threadsafe programs.

THREADSAFE

The program is threadsafe, and takes into account the possibility that, when accessing shared resources, other programs may be executing concurrently and attempting to modify the same resources. It uses appropriate serialization techniques when accessing any shared resource.

A threadsafe program can run under whichever TCB CICS invokes it, either the QR TCB or an open TCB, but even under an open TCB it continues to be restricted to the CICS permitted programming interfaces. Compliance to these rules ensures that the program has no TCB affinity.

This option is supported for all executable programs. A JVM program must be defined as THREADSAFE.

JVM Specify whether or not the program is to operate under the control of a Java Virtual Machine (JVM), and whether or not the JVM should operate in debugging mode.

DEBUG

The program is to operate under a JVM in debugging mode. A class name must be defined in the JVMClass field. The debugging mode can be overridden at runtime by the user-replaceable module DFHJVMAT (see the *CICS Customization Guide*).

NO The program is not to operate under a JVM.

> **YES** The program is to operate under the control of a JVM. A class name must be specified in the JVMClass field.

JVMClass

Specify the name of the main class in the CICS Java program to be executed by a JVM. This class name can be overridden at runtime by the user-replaceable module DFHJVMAT. DFHJVMAT can be used to specify a class name that is larger than 255 characters.

Note that this option applies only to Java applications that are to run under the control of a JVM, that is, the JVM field contains either YES or DEBUG.

To add the program definition to the data repository, press Enter.

PRTNDEF (Partition set definitions)

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

Availability

Partition sets can be defined for all managed CICS systems except CICS for OS/2 systems.

Access

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 71, includes information about all existing partition set definitions within the current context.

Select: PRTNDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                             SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
  W1 ==PRTNDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
 CMD Name      Ver   Created         Changed      Description
 --- --------  ---  --------------  --------------  --------------------
     EYUPTN01    1  1/09/97 14:22   1/09/97 14:22
     EYUPTN01    2  1/10/97 07:52   1/10/97 07:52
     EYUPTN02    1  1/09/97 14:31   1/09/97 14:31


```

Figure 71. The PRTNDEF view

Action commands

Table 25 on page 180 summarizes the action commands you can use with the PRTNDEF view.

Table 25. PRTNDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a partition set definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of partition set definitions, as described on page 73.
n/a	BRO	Browse a partition set definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 72 on page 181. All of the fields are nonmodifiable.
CREate	CRE	Create a partition set definition and add it to the data repository, as described on page 180.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a partition set in an active system, as described on page 76.
		After installation of a PRTNDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM PROGRAM command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE PROGRAM command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE PROGRAM command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a partition set definition from the data repository, as described on page 80.
n/a	UPD	Update a partition set definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 72. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the PRTNDEF view.

Creating a partition set definition

Figure 72 on page 181 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the PRTNDEF view.

```
COMMAND  ===>
  Name          ===> EYUPTN01   Version ===> 1
  Description   ===>
  RESGROUP      ===>
  User Data     ===>

  Resident      ===> NO         Resident status (NO, YES)
  Usage         ===> NORMAL     Storage release (NORMAL, TRANSIENT)
  UseLPAcopy    ===> NO         Partition set used from LPA (NO, YES)
  Status        ===> ENABLED    Partition set status (ENABLED, DISABLED)
  Rsl           ===> 0          Resource security value (0-24,PUBLIC,blank)


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

Figure 72. Creating a partition set definition

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the partition 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 partition set.

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

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

Resident
> Specifies the resident 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.

Usage   Indicate when the storage for this partition set should be released:
> **NORMAL**
> > When the use count of the partition set reaches zero, it becomes eligible for removal from storage as part of the normal dynamic storage compression process.
>
> **TRANSIENT**
> > When the use count of the partition set reaches zero, the storage is released.

UseLPAcopy
> Indicate whether the partition set is to be used from the link pack area (LPA):
>
> **NO**   The partition set is not used from the LPA; it is loaded into the CICS address space.

PRTNDEF

     YES   The partition set can be used from the LPA, if LPA=YES is coded as a CICS system initialization parameter.

Status Specifies the partition set status:

     DISABLED
          The partition set may not be used.

     ENABLED
          The partition set may be used.

Rsl For CICS/MVS 2.1.2 systems, specify the resource security value to be associated with the partition set:

     0   Transactions with RSL checking specified are not allowed to access the partition set.

     value A resource security value, in the range 1 through 24.

     PUBLIC
          Any transaction is allowed to access the partition set.

For systems running a version of CICS other than CICS/MVS 2.1.2, leave this field blank.

To add the partition set definition to the data repository, press Enter.

RQMDEF (Request model 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 for OS/390 Release 3.

Availability

Request models can be defined for CICS Transaction Server for OS/390 Release 3 and later.

Access

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 73 on page 183, includes information about all existing request model definitions within the current context.

Select: RQMDEF from the ADMRES menu.

```
   26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
  COMMAND  ===>                                          SCROLL ===> PAGE
  CURR WIN ===> 1        ALT WIN ===>
  W1 ==RQMDEF==========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
  CMD Name     Ver   Created        Changed       Description
  --- -------- --- -------------- -------------- --------------------
      EYURQM01   1  1/09/98 16:14  1/09/98 16:14
      EYURQM01   1  1/09/98 16:20  1/09/98 16:20
      EYURQM02   1  1/09/98 16:26  1/09/98 16:26
```

Figure 73. The RQMDEF view

Action commands

Table 26 summarizes the action commands you can use with the RQMDEF view.

Table 26. RQMDEF view action commands

Primary command	Line command	Description
ADD resdef version	ADD	Add a request model definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of request model definitions, as described on page 73.
n/a	BRO	Browse a request model definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 74 on page 184. All of the fields are nonmodifiable.
CREate	CRE	Create a request model definition and add it to the data repository, as described on page 184.
n/a	INS	For systems running CICS Transaction Server for OS/390 Release 3 or later, install a request model in an active system, as described on page 76.
		After installation of a RQMDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM RQMODEL command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE REQUESTMODEL command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE REQUESTMODEL command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove resdef version	REM	Remove a request model definition from the data repository, as described on page 80.

Table 26. RQMDEF view action commands (continued)

Primary command	Line command	Description
n/a	UPD	Update a request model definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 74. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the RQMDEF view.

Creating a request model definition

Figure 74 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the RQMDEF view.

```
 COMMAND  ===>

    Name          ===> EYURQM01      Version   ===> 1
    Description   ===>
    RESGROUP      ===>
    User Data     ===>

    OMGModule     ===>

    OMGInterface  ===>                                 IIOP Interface Name
    OMGOperation  ===>                                 IIOP Operation Name
    Transid       ===>                Transaction id


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

Figure 74. Creating a request model definition

Provide the following information, as appropriate:

Name   Specify a 1- to 8-character name for the request model definition.

Description
    (Optional.) Specify a 1- to 30-character description of the request model.

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.

OMGModule
    Define a pattern that may match the qualified module name (coded in CORBA IDL), which defines the name scope of the interface and operation whose implementation is to be executed.

OMGInterface
    Define a pattern, either specific or generic, that may match the interface name. The maximum length of this field is 31 characters.

? **OMGOperation**
? Define a pattern, either specific or generic, that may match the IDL
? operation name. The maximum length of this field is 31 characters.

? **Transid**
? Specify the 4-character name of the CICS transaction to be executed when
? a request matching the specification of the request model is received.

? To add the request model definition to the data repository, press Enter.

Generic pattern matching

? OMGInterface and OMGOperation can be defined as generic patterns. The rules
? for pattern matching are based on those for RACF profile definitions, and are
? summarized as follows:

- ? Double colons (::) are used as component separators.
- ? Wildcard characters + and * are used to match one (+) or more (*) characters
  ? (excluding colons).
- ? Wildcard ** matches any number of components of the module name. Only one
  ? ** can be used in a pattern, but it can be used in any position (beginning,
  ? middle, or end).
- ? The * wildcard character, if used, must be the last character in a double-colon
  ? separated component.

? If a request is received that macthes several generic patterns, the least generic is
? selected. If there are two identical least generic patterns, results are unpredictable.

SESSDEF (Session definitions)

Session definitions describe the nature of logical links between systems that
communicate using intersystem communication (ISC) or multiple region operation
(MRO).

Availability

Sessions can be defined for all managed CICS systems except CICS for OS/2
systems.

Access

? 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 75 on page 186, includes
information about all existing session definitions within the current
context.

| **Select:** SESSDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                            SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
  W1 ==SESSDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
 CMD Name     Ver   Created         Changed       Description
 --- -------- --- -------------- -------------- ---------------------
     S0001      1  1/09/97 14:39   1/09/97 14:39  ISC Session
     S0001      2  1/09/97 14:48   1/09/97 14:48  ISC Session - Test
     S0002      1  1/09/97 15:03   1/09/97 15:03  MRO Session
```

Figure 75. The SESSDEF view

Action commands

Table 27 summarizes the action commands you can use with the SESSDEF view.

Table 27. SESSDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a session definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of session definitions, as described on page 73.
n/a	BRO	Browse a session definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 76 on page 187 and Figure 77 on page 190. All of the fields are nonmodifiable.
CREate	CRE	Create a session definition and add it to the data repository, as described on page 186.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a session definition from the data repository, as described on page 80.
n/a	UPD	Update a session definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 76 and Figure 77 on page 190. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the SESSDEF view.

Creating a session definition

When you use the create primary (CREate) or line (CRE) action command from the SESSDEF view, a series of input panels is produced.

Figure 76 on page 187 shows the format of the first panel produced when you want to create a session definition.

```
COMMAND  ===>
 Name            ===> S001A        Version ===> 1
 Description     ===> Session 1 - System A
 RESGROUP        ===>
 User Data       ===>

 Protocol        ===> APPC         Intercommunication link protocol
                                      (APPC, EXCI, LU61, NOTAPPLIC)
 Maximum         ===> 0   , 0      Maximum sessions (0-999, blank)
 Recv/Send count ===>     ,        Receive, Send counts (1-999, blank)
 Recv/Send prfx  ===>     ,        Receive, Send prefixes
 Recv/Send size  ===> 4096 , 4096  Max Recv, Send VTAM RU size (1-30720,blank)
 Modename        ===>              VTAM logmode name
 Connection      ===>              Connection name
 Autoconnect     ===> NO           Session established (NO, YES, ALL)
 NetNameQ        ===>              Name known to remote IMS system


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

Figure 76. Creating a session definition - Page 1

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the session 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 session.

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 session. CICSPlex SM makes no use of this user data.

Protocol
>Specify the type of protocol to be used for an intercommunication link:

>**APPC** LU type 6.2 protocol (Default for VTAM).

>**EXCI** External CICS interface.

>**LU61** LU type 6.1 protocol.

>**NOTAPPLIC**
>>The session does not represent an intercommunication link.

Maximum
>For APPC sessions, specify the maximum number of sessions to be supported by the modeset:

>**value1** Maximum number of sessions in the group, in the range 0 through 999.

>**value2** Maximum number of sessions to be supported as contention winners, 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.

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.

Modename
>Specify the 1- to 8-character name of a VTAM LOGMODE entry that identifies a group of sessions for use on an APPC connection.

Connection
>Specify the 1- to 4-character name of the connection definition (CONNDEF) that you want to use with this session definition.

Autoconnect
>Specify how connections are to be established.

>**APPC sessions**
>>For a VTAM-connected system that has Autoconnect set to YES or ALL on the connection definition (CONNDEF):

>>**NO** CICS does not attempt to bind any sessions when the connection is established.

>>**YES or ALL**
>>>Contention winner sessions are 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:

>>**NO** CICS does not attempt to bind any sessions when the connection is established.

>>**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.

>>**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.

>**LU 6.1 sessions**

>>**NO** The connection is not established at initialization or CEDA install.

>>**YES** The connection is established at initialization or CEDA install.

NetNameQ
>For CICS-to-IMS sessions, specify the name by which the remote IMS system knows this session.

If the session definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 77 shows the format of the second session definition panel.

```
COMMAND  ===>
 Name                  S001A        Version ===> 1

 SessName       ===>              Session ID
 Session priority ===> 0          Session priority (0-255, blank)
 Userid         ===>              Signon and security userid
 Inservice      ===> N/A          Session in communication (YES, NO, N/A)
 Build Chain    ===> YES          Chain assembly required (YES, NO)
 Relreq         ===> NO           Release logic unit (YES, NO)
 Discreq        ===> NO           Disconnect request (YES, NO)
 Userarealen    ===> 0            User area size (0-255), blank)
 Ioarea Length  ===> 0    , 0     Terminal I/O area (0-32767, blank)
 NEP class      ===> 0            NEP transaction class (0-255, blank)
 Transaction    ===>              Device initiated transaction
 Recov Option   ===> SYSDEFAULT   CICS recovery using XRF
                                    (SYSDEFAULT, CLEARCONV,
                                     RELEASESESS, UNCONDREL, NONE)
 Recov Notify   ===> N/A          XRF takeover notify
                                    (NONE, MESSAGE, TRANSACTION, N/A)


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

Figure 77. Creating a session definition - Page 2

Provide the following information, as appropriate:

SessName

Specify a 1- to 4-character symbolic ID to be used as the local half of a session qualifier pair in a CICS intercommunication parallel session.

Session priority

Specify the terminal priority, 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.

Userid

Specify a 1- to 8-character user ID to be used for signon and referred to in security error messages, security violation messages, and the audit trail.

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.

Build Chain

Indicate whether CICS is to perform chain assembly prior to passing input data to the application program:

YES   Any terminal input/output area (TIOA) received by an application program from this logical unit contains a complete chain.

NO   Any TIOA received by an application program from this logical unit contains one request unit (RU).

Relreq

Specify YES or NO to indicate whether CICS is to release the logical unit upon request by another VTAM application program.

Discreq

For LU 6.1 ISC sessions, specify YES or NO to indicate whether disconnect requests are to be honored.

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.

IOarea Length

Specify the length, in bytes, of the TIOA to be used for processing messages transmitted on an MRO link:

value1 The minimum size of a TIOA to be passed to an application program when a RECEIVE command is issued, in the range 0 through 32767.

value2 If value2 is greater than or equal to value1 and the size of an input message exceeds value1, CICS uses a TIOA value2 bytes long. If value2 is not specified, or is less than value1, it defaults to the value of value1.

If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

NEP class

Identify the node error program transaction class:

0 Link to the default node error program module.

value Transaction class for the node error program module, in the range 1 through 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.

Recov Option

Specify how sessions should be recovered in a CICS system running with VTAM persistent sessions, or with XRF:

SYSDEFAULT

VTAM persistent sessions: CICS selects 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: If the AutoConnect value is YES, the session is restarted; otherwise, the session is unbound.

CLEARCONV

VTAM persistent sessions: CLEARCONV is not supported for APPC sessions. It defaults to SYSDEFAULT.

XRF: If the AutoConnect value is YES, the session is restarted; otherwise, the session is unbound.

NONE

VTAM persistent sessions: The session is not to be recovered at

system restart within the persistent session delay interval. In effect, the sessions on the modegroup have no persistent sessions support.

XRF: The logon state is not tracked by the alternate system, and the terminal session is not automatically recovered after a takeover. In effect, the terminal has no XRF support. After takeover, the terminal is reconnected automatically by the alternate system, if the AutoConnect value is YES.

RELEASESESS

VTAM persistent sessions: RELEASESESS is not supported for APPC sessions. It defaults to SYSDEFAULT.

XRF: If the AutoConnect value is YES, the session is restarted; otherwise, the session is unbound.

UNCONDREL

Requires CICS to send an UNBIND request to release the active session, whether or not the session was busy at the time of system restart or XRF takeover.

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.

If the session definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 78 on page 193 shows the format of the third session definition panel. The fields on this panel apply only to systems running CICS/MVS 2.1.2.

```
 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 78. Creating a session definition - Page 3

Provide the following information, as appropriate:

Operid
Specify a 3-character operator ID to be associated with the sessions.

Oper Priority
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
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
Identify the preset transaction security keys for the device by specifying one or more decimal values in the range 1 through 64.

To add the session definition to the data repository, press Enter.

TCPDEF (TCP/IP service 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.

Availability

TCP/IP services can be defined for all managed CICS systems at CICS Transaction Server for OS/390 Release 3 and later.

Access

To display information about existing TCP/IP service definitions:

Issue the command:
    TCPDEF [*resdef*]

TCPDEF

where *resdef* is the specific or generic name of a TCP/IP service definition. If you omit this parameter, the view, illustrated in Figure 79, includes information about all existing TCP/IP service definitions within the current context.

Select: TCPDEF from the ADMRES menu.

```
26MAR1999  14:26:01 ----------- INFORMATION DISPLAY --------------------
COMMAND  ===>                                            SCROLL ===>
CURR WIN ===> 1       ALT WIN ===>
 W1 =TCPDEF============EYUPLX01=EYUPLX01=26MAR1999==14:26:01====CPSM=====
CMD Name     Ver  Created         Changed        Description
--- -------- --- -------------- -------------- -------------------------
    TCPSRV1    1  7/28/98 11:52  7/28/98 11:52  Test TCPIP service 1
    TCPSRV2    1  7/28/98 11:53  7/28/98 11:53  Test TCPIP service 2
```

Figure 79. The TCPDEF view

Action commands

Table 28 summarizes the action commands you can use with the TCPDEF view.

Table 28. TCPDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a TCP/IP service definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of TCP/IP service definitions, as described on page 73.
n/a	BRO	Browse a TCP/IP service definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 80 on page 195. All of the fields are nonmodifiable.
CREate	CRE	Create an TCP/IP service definition and add it to the data repository, as described on page 195.
n/a	INS	For systems running CICS Transaction Server for OS/390 Release 3 or later, install a TCP/IP service definition in an active system, as described on page 76.
		After installation of a TCPDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM TCPIPS command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE TCPIPSERVICE command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE TCPIPSERVICE command; see *CICS System Programming Reference*.

Table 28. TCPDEF view action commands (continued)

Primary command	Line command	Description
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a TCP/IP service definition from the data repository, as described on page 80.
n/a	UPD	Update a TCP/IP service definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 80. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the TCPDEF view.

Creating a TCP/IP service definition

Figure 80 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the TCPDEF view.

```
 COMMAND ===>
  Name         ===> TCPSRV1  Version    ===> 1      Entry version Number
  Description ===> Test TCPIP service 1
  RESGROUP     ===>
  User Data   ===>

  Urm          ===>          Name of user replaceable module
  Portnumber  ===> 00000    Port number for this service (1 - 32767)
  Certificate ===>          HFS pathname of certificate

  Status       ===> OPEN     Initial status of service (OPEN, CLOSED)
  SSL          ===> NO       Use of SSL (NO, YES, CLIENTAUTH)
  Transaction ===>          Transaction Id to process this service
  Backlog      ===> 00000    Requests queued before rejection (0 - 32767)
  TSQprefix   ===>          Prefix for temporary storage queue
  IPaddress   ===>          IP address
  SocketClose ===> NO       Socket close (NO, 0-240000)



 Press ENTER to create TCPDEF.
 Enter END or CANCEL to cancel without creating.

  F1=HELP      F2=hsplit    F3=END      F4=RETURN    F5=RFIND     F6=RCHANGE
  F7=UP        F8=DOWN      F9=SWAP     F10=LEFT     F11=RIGHT    F12=RETRIEVE
```

Figure 80. Creating a TCP/IP service definition

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the TCP/IP service 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.

TCPDEF

? **Description**
?   (Optional.) Specify a 1- to 30-character description of the TCP/IP service.

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

? **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.

? **URM** Specify 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 for Web services, but is ignored for
?   IIOP services, since the same URM is always called.

? **Portnumber**
?   Specify the decimal number of the port on which CICS is to listen for
?   incoming client requests.

? **Certificate**
?   Specify the name of a certificate within the keyring file that is to be used in
?   the SSL handshake for this TCP/IP service. If this attribute is omitted, the
?   certificate nominated as the default for this keyring file is used.

? **Status** Specify the initial status of the service after installation:

?   **OPEN** CICS is to begin listening for this service after installation.

?   **CLOSE**
?   CICS is not to listen for this service after installation.

? **SSL** Specify whether the service is to use the Secure Sockets Layer (SSL):

?   **NO** The service does not use SSL.

?   **YES** The service uses SSL but does not request client authentication.

?   **CLIENTAUTH**
?   The service uses SSL with client authentication.

? **Transaction**
?   Specify the 4-character ID of the CICS transaction attached to process new
?   requests received for this service.

? **Backlog**
?   Specify the number of TCP/IP connections for this service which are
?   queued in TCP/IP before TCP/IP starts to reject incoming client requests.

? **TSQprefix**
?   Specify a prefix for temporary storage queues which are to be used by the
?   managed CICS system to store HTTP requests and responses for this
?   TCP/IP service.

| **IPaddress**
| Specify an IP address to be used for this TCP/IP service. If no IP address
| is specified or if INADDR_ANY is specified, requests to any valid TCP/IP
| address inthis MVS image will be serviced, unless an explicit service is
| open.

? **SocketClose**
?   (Optional.) Specify the period of time after which the managed CICS
?   system is to close the socket, if no data is received. The time period is of
?   the format HHMMSS. A value of 000000 specifies that, if no data is

?   received, the socket is to be closed immediately. NO specifies the socket is

?   not to be closed if no data is received.

?   To add the program definition to the data repository, press Enter.

TDQDEF (Transient data queue definitions)

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

Availability

Transient data queues can be defined for all managed CICS systems.

Access

?   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 81, includes information about all existing transient data queue definitions within the current context.

| **Select:** TDQDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                           SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
 W1 ==TDQDEF==========EYUPLX01=EYUPLX01=26MAR1999==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 81. The TDQDEF view

Action commands

Table 29 summarizes the action commands you can use with the TDQDEF view.

Table 29. TDQDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a transient data queue definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of transient data queue definitions, as described on page 73.

Table 29. TDQDEF view action commands (continued)

Primary command	Line command	Description
n/a	BRO	Browse a transient data queue definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 82 on page 199 through Figure 86 on page 204. All of the fields are nonmodifiable.
CREate	CRE	Create a transient data queue definition and add it to the data repository, as described on page 198.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a transient data queue in an active system, as described on page 76.
# # # # # # # # # # #		After installation of a TDQDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM QUEUE command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE TDQUEUE command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE TDQUEUE command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a transient data queue definition from the data repository, as described on page 80.
n/a	UPD	Update a transient data queue definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 82 through Figure 86 on page 204. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the TDQDEF view.

Creating a transient data queue definition

When you use the create primary (CREate) or line (CRE) action command from the TDQDEF view, a series of input panels is produced.

Figure 82 on page 199 shows the format of the first panel produced when you want to create a transient data queue definition.

```
 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 82. Creating a transient data queue definition - Page 1

Provide the following information, as appropriate:

Name Specify a 1- to 4-character ID for the transient data queue 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 transient data queue.

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 transient data queue. CICSPlex SM makes no use of this user data.

Type Specify the type of transient data queue you are defining, as one of the following:
> **EXTRA**
> > Extrapartition
> **INDIRECT**
> > Indirect
> **INTRA**
> > Intrapartition
> **REMOTE**
> > Remote

To complete the transient data queue definition, issue the DOWN command. The panel that is displayed depends on the value you specified in the Type field.

Figure 83 on page 200 shows the format of the panel produced when you specify EXTRA in the Type field.

TDQDEF

```
 COMMAND  ===>
  Name              EQEX       Version ===> 1

  EXTRA PARAMETERS:
    Databuffers  ===> 1           Number of data buffers (1-255, blank)
    Ddname       ===>             Startup JCL DD name
    Dsname                        Extrapartition queue data set name
                 ===>
    Sysoutclass  ===>             Class of SYSOUT data set
    Erroroption  ===> IGNORE      I/O error recovery (IGNORE, SKIP)
    Opentime     ===> INITIAL     Data set open (INITIAL, DEFERRED)
    Rewind       ===> LEAVE       Tape data set disposition (LEAVE, REREAD)
    Typefile     ===> INPUT       Data set type (INPUT, OUTPUT, RDBACK)
    Recordsize   ===> 1           Record size (1-32767, blank)
    Blocksize    ===> 0           Block size (0-32767, blank)
    Recordformat ===> UNDEFINED Record Format (FIXED, VARIABLE, UNDEFINED)
    Blockformat  ===> NOTAPPLIC Block format (BLOCKED, UNBLOCKED, NOTAPPLIC)
    Printcontrol ===> N/A         Print control (ASA, MACHINE, N/A)
    Disposition  ===> SHR         Disposition (SHR, OLD, MOD)


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

Figure 83. Creating an EXTRA transient data queue definition

Provide the following information, as appropriate:

Databuffers

Specify the number of data buffers to be provided for the queue, in the range 1 through 255. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Ddname

Specify the 1- to 8-character name of a data set defined in the startup JCL.

Dsname

Identify the QSAM data set that is to be used to store records written to this queue:

name   The 44-character name of a physical data set.

DUMMY

A dummy data set name.

Sysoutclass

Specify a system output (SYSOUT) class to be used as an alternative to the physical data set named in the Dsname field:

x   A single alphabetic character that represents an output class on the MVS system where the CICS job is to run.

*****   The default class. Sysoutclass defaults to * if you leave the Dsname field blank and specify OUTPUT in the Typefile field.

blank Sysoutclass defaults to a blank character if you leave the Dsname field blank and specify INPUT or RDBACK in the Typefile field.

Erroroption

Specify the action to be taken if an I/O error occurs:

IGNORE

The block that caused the error is accepted.

SKIP   The block that caused the error is skipped.

Opentime
> Specifies the initial status of the data set:

> **INITIAL**
>> Data set is opened at install time.

> **DEFERRED**
>> Data set remains closed until you indicate that you want to open it using CEMT INQUIRE and SET TDQUEUE commands.

Rewind
> Specify the disposition of a tape data set:

> **LEAVE**
>> Current tape is positioned to the logical end of the data set.

> **REREAD**
>> Current tape is positioned to reprocess the data set.

Typefile
> Specify the type of data set the queue is to be associated with:

> **INPUT**
>> Input data set.

> **OUTPUT**
>> Output data set.

> **RDBACK**
>> Input data set that is to be read backward.

Recordsize
> Specify the record length, in bytes, in the range $\underline{1}$ through 32767. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Blocksize
> Specify the length of the block, in bytes, in the range $\underline{0}$ through 32767. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Recordformat
> Specify the record format of the data set:

> **UNDEFINED**
>> Record format not defined.

> **FIXED**
>> Fixed records.

> **VARIABLE**
>> Variable records.

Blockformat
> Specify the block format of the data set:

> **NOTAPPLIC**
>> No block format is defined for this data set.

> **BLOCKED**
>> Blocked record format.

> **UNBLOCKED**
>> Unblocked record format.

Printcontrol

Specify the control characters to be used:

<u>N/A</u>   The Printcontrol value does not apply to this definition and should not be validated.

ASA   ASA control characters.

MACHINE

Machine control characters.

Disposition

Specify the disposition of the data set:

<u>SHR</u>   Data set existed before this job step and can be read by other concurrent jobs.

MOD   For an existing sequential data set, the read/write mechanism is positioned after the last record in the data set each time it is opened for output.

OLD   Data set existed before this job step.

For a new data set that is being created in this job step, the read/write mechanism is positioned at the beginning of the data set.

Figure 84 shows the format of the panel produced when you specify INTRA in the Type field.

```
 COMMAND   ===>
  Name               EQIN      Version ===> 1


  INTRA PARAMETERS:


   Atifacility  ===> TERMINAL  Destination type (TERMINAL, FILE, SYSTEM)
   Recovstatus  ===> NO        Recovery (NO, PHYSICAL, LOGICAL)
   Facilityid   ===>           Sysid or 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 84. Creating an INTRA transient data queue definition

Provide the following information, as appropriate:

Atifacility

Specify the type of destination the queue represents:

<u>TERMINAL</u>

The transient data queue is to be associated with the terminal identified in the Facilityid field.

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.

SYSTEM
> The transient data queue is to be associated with the system identified in the Facilityid field.

Recovstatus
> Specify the recoverability attributes of the queue in the event of an abnormal termination of either CICS or the transaction that is processing the queue:

NO The queue is not recoverable.

LOGICAL
> The queue is logically recoverable.

PHYSICAL
> The queue is physically recoverable.

Facilityid
> Specify the 4-character ID of a:
> * Terminal, if you specified TERMINAL in the Atifacility field
> * System, if you specified SYSTEM in the Atifacility field
>
> If you leave this field blank, the Facilityid value defaults to the name of the queue.

Transid
> Specify the name of the transaction that is to be automatically initiated when the trigger level is reached.

Triggerlevel
> Specify the number of records to be accumulated before a transaction is automatically initiated to process them, in the range 0 through 32767. The default is **1**. A value of 0 disables ATI processing. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Userid
> Specify the user ID to be used for security checking when verifying the trigger-level transaction specified in the Transid field.

Wait Specify YES or NO to indicate whether an in-doubt unit of work (UOW) that has modified a logically recoverable queue should wait for resynchronization to determine whether to commit or back out the changes. If the Wait field does not apply to this definition, specify N/A.

Waitaction
> If you specified YES in the Wait field, specify the action CICS is to take for an in-doubt UOW:

N/A The Waitaction field does not apply to this definition and should not be validated.

QUEUE
> Any locks held by the UOW for this queue remain active until the final state of the UOW is known. Tasks are suspended rather than receiving the LOCKED response.

REJECT
> Any locks held by the UOW for this queue are retained until the final state of the UOW is known. Any further requests that need one of the retained locks are rejected, and a LOCKED response is returned.

Figure 85 shows the format of the panel produced when you specify INDIRECT in the Type field.

```
 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 85. Creating an INDIRECT transient data queue definition

Provide the following information, as appropriate:

Indirectname
> Specify the 4-character name of an existing transient data queue. The queue can be intrapartition, extrapartition, remote, or indirect.

Figure 86 shows the format of the panel produced when you specify REMOTE in the Type field.

```
 COMMAND  ===>
  Name                 EQRM     Version ===> 1

   REMOTE PARAMETERS:

      Remote Sysid ===>           SYSIDENT for Remote System
      Remotename   ===>           Remote destination name
      Remotelength ===> 1         Remote length (0-32767, blank)



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

Figure 86. Creating a REMOTE transient data queue definition

Provide the following information, as appropriate:

Remote Sysid
> (Optional.) Specify the 1- to 4-character system ID of the CICS system where the queue resides.
>
> CICSPlex SM uses this system ID only if the queue is part of a resource group that is directly associated with a resource description (via RESINDSC). If the queue is being assigned by a resource assignment (RASGNDEF), CICSPlex SM uses the actual CICS system ID of the related system.

Remotename

(Optional.) Specify the 1- to 4-character name by which the queue is known in the CICS system where it resides.

If you specify a remote name, CICSPlex SM uses that name when assigning the queue to a related system. If you specify a remote system but not a remote name, the local name (that is, the name of this transient data queue definition) is used in both the target and related systems.

Remotelength

Specify the length, in bytes, in the range 0 through 32767, with 1 as the default. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

To add the transient data queue definition to the data repository, press Enter.

TERMDEF (Terminal definitions)

Terminal definitions describe the unique characteristics of the terminal devices (including visual display units, printers, and operating system consoles) with which CICS communicates.

Availability

Terminals can be defined for all managed CICS systems.

Access

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 87, includes information about all existing terminal definitions within the current context.

Select: TERMDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                            SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
  W1 ==TERMDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
 CMD Name  Ver   Created         Changed       Description
 --- ----- ---  -------------   -------------  ----------------------
     E01X    1   1/09/97 15:11   1/09/97 15:11
     E01Y    1   1/09/97 15:14   1/09/97 15:14
     E01Z    1   1/09/97 15:19   1/09/97 15:19
```

Figure 87. The TERMDEF view

Action commands

Table 30 on page 206 summarizes the action commands you can use with the TERMDEF view.

Table 30. TERMDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a terminal definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of terminal definitions, as described on page 73.
n/a	BRO	Browse a terminal definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 88 on page 207 and Figure 89 on page 211. All of the fields are nonmodifiable.
CREate	CRE	Create a terminal definition and add it to the data repository, as described on page 206.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a terminal in an active system, as described on page 76.
		After installation of a TERMDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM TERMNL command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE TERMINAL command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE TERMINAL command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a terminal definition from the data repository, as described on page 80.
n/a	UPD	Update a terminal definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 88 and Figure 89 on page 211. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the TERMDEF view.

Creating a terminal definition

When you use the create primary (CREate) or line (CRE) action command from the TERMDEF view, the terminal definition fields are displayed in a series of panels. The number of panels displayed depends on the characteristics of your terminal. Figure 88 on page 207 shows the terminal definition fields, for convenience in one list.

```
 COMMAND  ===>
  Name          ===> E01X       Version ===> 1
  Description   ===>
  RESGROUP      ===>
  User Data

  Autoinsmodel  ===> NO         Model for autoinstall (NO, YES, ONLY)
  Autoinsname   ===>            Name of autoinstall control program
  Typeterm      ===>            Definition associated with this terminal
  Console       ===>            System Console number (NO, 1-250, blank)
  ConsoleName   ===>            System Console name
  NetName       ===>            VTAM network name
  Modename      ===>            VTAM logmode name
  Printer       ===>            Primary 3270 printer
  Printercopy   ===> NO         Use printer for hardware copy (NO, YES)
  Altprinter    ===>            Alternative printer name
  Altprintcopy  ===> NO         Printer used for hardware copy (NO, YES)
  Pool          ===>            Name for 3600 or 3650 pipeline terminal
  Tasklimit     ===>            Number of concurrent tasks (NO, 1-32767, blank)
  Userid        ===>            Userid used for security
  Natlang       ===>            Display language for NLS-enabled terminals
  Transaction   ===>            Initiated when no active tasks
  Termpriority  ===> 0          Terminal priority (0-255, blank)
  Inservice     ===> YES        Terminal status (YES, NO)
  Security name ===>            Security name of remote system
  BindPassword  ===> ............... Bind security password
  Bindsecurity  ===> NO         Use ESM for bind-time security (NO, YES)
  Usedfltuser   ===> N/A        Use default user (YES, NO, N/A)
  Attachsec     ===> LOCAL      Security (LOCAL, IDENTIFY, VERIFY,
                                         PERSISTENT, MIXIDPE)
  Remotename    ===>            Name of terminal in owning system
  Remote Sysid  ===>            SYSIDENT of Remote System
  Remote Sysnet ===>            Network name

  CICS/MVS 2.1.2 only
  Operid        ===>              Operator identifier
  Oper Priority ===> 0            Operator priority code (0-255, blank)
  Oper RSL                        Terminal Resource security keys
                ===>
  Oper Security                   Device transaction security keys
                ===>
                ===>
                ===>
 Press ENTER to create TERMDEF.

 Type END or CANCEL to cancel without creating.
```

Figure 88. Creating a terminal definition

Provide the following information, as appropriate:

Name Specify a 1- to 4-character ID for the terminal 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 terminal.

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 terminal. CICSPlex SM makes no use of this user data.

Autoinsmodel

Indicate whether this terminal definition can be used as a model definition for autoinstall:

NO   Should not be used as a model for autoinstall. It is to be used only as a definition for a specific device that will not be autoinstalled.

ONLY   Can be used only as a model for autoinstall. It is not to be used as a definition for a specific device.

YES   Can be used as a model for autoinstall. It is also to be used as a definition for a specific device that will not be autoinstalled.

Autoinsname

For terminals with an Autoinsmodel value of YES or ONLY, specify the 1- to 8-character name by which this model definition will be known in the autoinstall control program.

Typeterm

Specify the 1- to 8-character name of a typeterm definition (TYPTMDEF) to be associated with this terminal definition.

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

If the CICS system is running under MVS/ESA SP 4.1 or later, specify a 2- to 8-character name that uniquely identifies a console device within the sysplex. This name must correspond to the name defined for the console in the MVS SYS1.PARMLIB member, CONSOLnn.

Netname

Specify the 1- to 8-character network name that identifies the terminal to ACF/VTAM. If you do not specify a network name, the Netname field defaults to the terminal ID.

Modename

For APPC single session terminals, specify the 1- to 8-character LOGMODE name to be passed to VTAM.

Printer

Specify the 1- to 4-character name of the primary 3270 printer to be used for ISSUE PRINT commands or PRINT requests from an operator pressing a program access (PA) key.

Printercopy

Specify YES or NO to indicate whether CICS should use the hardware COPY feature to satisfy a print request on the 3270 printer named in the Printer field.

Altprinter

Specify the 1- to 4-character name of an alternate 3270 printer to be used if the primary printer is unavailable.

Altprintcopy

Specify YES or <u>NO</u> to indicate whether CICS should use the hardware COPY feature to satisfy a print request on the 3270 printer named in the Altprinter field.

Pool   Specify the pool name for a 3600 or 3650 pipeline terminal that is pooled with other pipeline terminals.

Tasklimit

Indicate whether concurrent tasks are 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.

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

Userid

Specify a 1- to 8-character user ID to be used for signon and referred to in security error messages, security violation messages, and the audit trail.

Note: You can use the special preset security userids *FIRST and *EVERY. See the *CICS Resource Definition Guide* for details of the preset security userids.

Natlang

Identify the language in which all NLS-enabled messages should be displayed. If this field is blank, the system default defined in the system initialization table (SIT) is used. See the *CICS RACF Security Guide* for a list of valid language codes.

Transaction

Specify the 1- to 4-character ID of the transaction that is to be initiated each time input is received from the terminal when there is no active task.

Termpriority

Specify the terminal priority, in the range <u>0</u> through 255. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Inservice

Indicate the service status of the terminal:

<u>YES</u>   Transactions can be initiated and messages can be automatically sent to the terminal.

NO   The terminal can neither receive messages nor transmit input.

Security name

Specify the security name of the remote system.

BindPassword

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

For APPC connections, indicate 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 table parameter is set to YES, an ESM is called.

Usedfltuser

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.

Attachsec

Specify the level of attach-time user security required for the connection:

LOCAL
      Use link security, which means the authority of the user is the same as that of the link itself.

IDENTIFY
      Require a user ID.

MIXIDPE
      Support both IDENTIFY and PERSISTENT security types.

PERSISTENT
      Require a user ID and password on first attach, but only a user ID on subsequent attach requests.

VERIFY
      Require a user ID and password.

Remotename

Specify the 1- to 4-character name by which the terminal is known in the CICS system that owns it.

Remote Sysid

Specify the 1- to 4-character name of the intercommunication link to the CICS system that owns the terminal. This name must match the connection name on the associated connection definition (CONNDEF).

Remote Sysnet

Specify the 1- to 8-character network name (APPLID) of the CICS system that owns the terminal.

Operid

Specify a 3-character operator ID to be associated with the terminal.

Oper Priority

Specify the operator priority to be used in determining task processing priority for each transaction attached to the terminal, in the range 0 through 255. If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Oper RSL

Identify the preset resource security keys for the terminal by specifying one or more decimal values in the range 1 through 24. If you do not want to identify any resource security keys, specify 0.

Oper Security

Identify the preset transaction security keys for the device by specifying one or more decimal values in the range 1 through 64.

For CICS for OS/2, you need to complete the fields shown in Figure 89.

```
 CICS for OS/2 only

   Window Style                 ===> PMWINDOW     PMWINDOW/FULLSCREEN
   Workstation Setup            ===>
   3151 ASYNC Port              ===> COM1         COM1-COM8
   3151 ASYNC bps               ===>              110,150,300,600,1200,
                                                  1800,2400,3600,4800,
                                                  9600,19200
   Screen Height                ===> 24           1-43
   Screen Width                 ===> 80           1-132
   Upper case translation       ===> YES          Yes/No/TranID
   Code Page                    ===>              1-65534
   Katakana                     ===> NO           Yes/No
   ATI Status                   ===> YES          Yes/No
   Autoconnect                  ===> YES          Yes/No
   Color                        ===> YES          Yes/No
   Highlight                    ===> YES          Yes/No
   User Area Size               ===>              0-255
   Graphical Char Set           ===>              0-65535
   Terminal Type                ===> 3270TERM     Terminal Hardware
   Model                        ===> No           Yes/No
   Printer Close Mode           ===> EOF          EOF/EOT
   Initial Transaction Required ===> YES          Yes/No

 Press ENTER to create TERMDEF.

 Type END or CANCEL to cancel without creating.
```

Figure 89. Creating a terminal definition - fields for CICS for OS/2 only

Window Style

Specify the window style:

PMWINDOW

The terminal occupies a window.

FULLSCREEN

The terminal occupies the full screen.

Workstation Setup

Specify the Workstation Setup Table (WSU) entry for this terminal.

3151 ASYNC Port

Specify the communications port used for connecting a 3151 terminal to your workstation. Valid values are COM1 to COM8.

3151 ASYNC bps
Specify the communciations rate of the terminal attached to the communciations 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.

Screen Height
Specify the number of lines available on your terminal. Valid values range from 1 to 43. The default is 24.

Screen Width
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:

```
24 lines x 80 columns
32 lines x 80 columns
43 lines x 80 columns
27 lines x 132 columns
```

Upper case translation
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.

Code Page
Specify the code page to be used by this terminal for displaying data. Valid values range from 1 to 65534.

Katakana
Specify whether or not the terminal supports Katakana.

YES   The terminal supports Katakana.

NO   The terminal does not support Katakana.

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.

Autoconnect
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.

Color Specify whether or not the terminal supports color.

YES   The terminal supports color.

NO   The terminal does not support color.

Highlight
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.

User Area Size
> Specify the size of the TCT area used to pass information between application programs running on the same terminal. The value must match that specified on a host CICS system when transaction routing is used.

Graphical Char Set

Terminal Type
> 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

Model Specify whether or not this terminal is a model.

    YES   This terminal definition is a model.

    NO   This terminal in not a model.

Printer Close Model
> Specify when the printer will be released.

    EOF   Release the printer at end of file.

    EOT   Release the printer at end of task.

    blank

Initial Transaction Required
> 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.

At any point, you can press Enter to add the terminal definition to the data repository.

TRANDEF (Transaction definitions)

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

Availability

Transactions can be defined for all managed CICS systems.

Access

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 90 on page 214, includes information about all existing transaction definitions within the current context.

| **Select:** TRANDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                        SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
 W1 ==TRANDEF========EYUPLX01=EYUPLX01==26MAR1999==11:30:30=CPSM======4==
 CMD Name  Ver    Created         Changed      Description
 --- ----  ---  -------------   -------------  ------------------------
     ETVP   1   1/17/97 15:21   1/17/97 15:21  SSET - Workload IVP Def
     ETVP   2   1/18/97 09:12   1/18/97 09:12  SSET - Workload IVP Def
     ET01   1   1/09/97 15:28   1/09/97 15:28  SSET - Definition
     ET02   1   1/09/97 15:51   1/09/97 15:51  SSET - Definition
```

Figure 90. The TRANDEF view

Action commands

Table 31 summarizes the action commands you can use with the TRANDEF view.

Table 31. TRANDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a transaction definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of transaction definitions, as described on page 73.
n/a	BRO	Browse a transaction definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 91 on page 215 through Figure 93 on page 221. All of the fields are nonmodifiable.
CREate	CRE	Create a transaction definition and add it to the data repository, as described on page 215.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a transaction in an active system, as described on page 76.
#		After installation of a TRANDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM TRAN command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE TRANSACTION command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE TRANSACTION command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.

Table 31. TRANDEF view action commands (continued)

Primary command	Line command	Description
REMove *resdef version*	REM	Remove a transaction definition from the data repository, as described on page 80.
n/a	UPD	Update a transaction definition in the data repository. The format of the resulting panels is similar to that shown in Figure 91 through Figure 93 on page 221. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the TRANDEF view.

Creating a transaction definition

When you use the create primary (CREate) or line (CRE) action command from the TRANDEF view, a series of input panels is produced.

Figure 91 shows the format of the first panel produced when you want to create a transaction definition.

```
 COMMAND  ===>
  Name          ===> ETVP      Version ===> 1
  Description   ===> SSET Workload IVP Def
  RESGROUP      ===>
  User Data     ===>

  Program       ===>           Name program to process transaction
  Twasize       ===> 0         Transaction work area size (0-32767, blank)
  Profile       ===> DFHCICST  Profile definition name
  Partitionset ===>            Application partition set (name, KEEP, OWN)
  Status        ===> ENABLED   Transaction status (ENABLED, DISABLED)
  Taskdataloc   ===> BELOW     Task storage location (BELOW, ANY)
  Taskdatakey   ===> USER      Task storage key (USER, CICS)
  Storageclear ===> NO         Clear task life-time storage (YES, NO)
  Runaway       ===> SYSTEM    Max tasktime (SYSTEM, 0-2700000, blank)
  Shutdown      ===> DISABLED  Status during shutdown (DISABLED, ENABLED)
  Isolate       ===> YES       Isolate user storage (YES, NO)


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

Figure 91. Creating a transaction definition - Page 1

Provide the following information, as appropriate:

Name Specify a 1- to 4-character ID for the transaction definition.

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

Description
> (Optional.) Specify a 1- to 30-character description of the transaction.

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. CICSPlex SM makes no use of this user data.

Program
> Specify the 1- to 8-character name of the program to which CICS should give control to process this transaction.
>
> If you are defining a mirror transaction, this field must contain the name of the mirror program DFHMIRS.
>
> **Note:** One, and only one, of the fields Program, Remote Sysid and Brexit must be specified.

Twasize
> Specify the number of bytes for the transaction work area to be acquired for this transaction, 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.

Profile
> Specify the 1- to 8-character name of the profile definition (PROFDEF) that specifies the processing options to be used for the terminal that initiated the transaction. (The default is DFHCICST.)

Partitionset
> Specify the 1- to 8-character name of the partition set that is to be the default application partition set:
>
> **name** CICS destroys any existing partitions and loads the named partition set before the first BMS output to the terminal from the transaction.
>
> **KEEP** The transaction uses the application partition set for the terminal, whatever it may be. KEEP can be used for successor transactions in a chain of pseudoconversational transactions.
>
> **OWN** The transaction performs its own partition management.

Status Specifies the transaction status:
> **ENABLED**
> > The transaction may be used.
>
> **DISABLED**
> > The transaction may not be used.

Taskdataloc
> Specify the preferred location of any task-lifetime storage acquired by CICS for the duration of the transaction:
>
> **BELOW**
> > One or more programs that make up the transaction either run in 24-bit addressing mode or issue local DL/I requests using the DLI CALL interface. The address of the storage must be below the 16MB line.

> **ANY** The programs that make up the transaction can handle 31-bit addresses. The address of the storage can be above or below the 16MB line.

Taskdatakey
> Specify the storage key of the task-lifetime storage and any program-related storage that CICS allocates for the transaction:

> **USER** CICS obtains user-key storage for the transaction. Application programs executing in any key can both read and modify these storage areas.

> **CICS** CICS obtains CICS-key storage for the 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.

Storageclear
> Specify YES or NO to indicate whether task-lifetime storage for this transaction should be cleared upon release.

Runaway
> Specify the amount of time, in milliseconds, for which any task running under this transaction can have control of the processor before it is assumed to be in a runaway condition:

> **SYSTEM**
>> CICS uses the ICVR system initialization value as the runaway time limit for this transaction.

> **number**
>> The runaway time limit, in the range 0—2 700 000. A value of 0 means there is no time limit and that no runaway task detection is required for the transaction.

> If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Shutdown
> indicates, for transactions associated with a terminal, whether the transaction can be run during CICS shutdown:

> **DISABLED**
>> The transaction cannot be run during CICS shutdown.

> **ENABLED**
>> The transaction can be run during CICS shutdown.

Isolate
> Indicate whether CICS is to isolate the transaction's user-key, task-lifetime storage to provide protection from the user-key programs of other transactions (that is, from programs defined with EXECKEY(USER)):

> **YES** Isolated from user-key programs of all other transactions.

> **NO** Isolated from user-key programs of transactions defined with an Isolate value of YES. Storage is not isolated from user-key programs of transactions defined with an Isolate value of NO.

If the transaction definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 92 shows the format of the second transaction definition panel.

```
COMMAND ===>
  Name              ETVP           Version ===> 1

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


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

Figure 92. Creating a transaction definition - Page 2

Provide the following information, as appropriate:

Dynamic

> Specify whether or not the transaction is eligible for routing:
>
> **YES** The transaction is eligible for routing.
>
> **NO** The transaction is not eligible for routing.
>
> **Note:** If the TRANDEF is either named in a resource assignment or dynamically installed with a Usage value of REMOTE, the Mode value (DYNAM or STAT) overrides this value in determining whether the transaction can be dynamically routed.

Remotename

> (Optional.) Specify the 1- to 4-character name by which the transaction is known in a remote CICS system. (If the remote system is an IMS system, this name can be up to 8 characters long.)
>
> 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 then you must not also specify a value for Remotename.

Remote Sysid

> (Optional.) Specify the 1- to 4-character name of the connection definition (CONNDEF) for the intercommunication link on which the transaction attach request will be sent.
>
> 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 assignment (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.

Trprof For remote transactions, specify the name of the profile for the session that will carry intersystem flows during ISC transaction routing. (The default is DFHCICSS.)

Localq

For remote transactions, specify YES or NO to indicate whether queuing on the local system is to be performed. If the Localq value does not apply to this definition, specify N/A.

Priority

Specify the transaction priority, 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.

Tranclass

Specify the 1- to 8-character name of the transaction class to which the transaction belongs. (The default is DFHTCL00, which means the transaction does not belong to any transaction class.)

Alias Specify a 1- to 4-character alias name for the transaction.

Taskreq

Indicate whether the transaction can be initiated by pressing a PA or PF key, by using a light pen, or by using a card:

LPA For a light-pen-detectable field on a 3270 device.

MSRE For the 10/63 character magnetic slot reader.

OPID For the operator identification card reader.

PA1/PA2/PA3
For PA keys.

PF1 – PF24
For PF keys.

Xtranid

Specify a 4-byte transaction ID in hexadecimal notation that represents an alternate transaction name to be used for initiating transactions.

If fewer than eight hexadecimal digits are specified, Xtranid is padded on the right with blanks. A value of X'00000000' is not allowed. Xtranid should not begin with either X'C3' or X'40', and should not end with X'FFFFFF', as all these values are reserved for use by CICS.

Ressec

Indicate whether resource security checking is to be used for resources accessed by this transaction:

NO All resources are available to any user who has authority to use the transaction.

YES An external security manager (ESM) is called.

Cmdsec

Indicate whether security checking is to be done for system programming commands:

NO No checks; the commands are always executed.

YES An external security manager (ESM) is called.

Action

Specify the action to be taken when a CICS system fails, or loses connectivity with its coordinator, during two-phase commit processing after the unit of work (UOW) enters the in-doubt period:

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.

Note: If you specify YES in the Wait field, the Action value has no effect unless the Waittime value expires before recovery from the failure.

Wait Indicate whether an in-doubt UOW is to wait, pending recovery from a failure that occurred after the UOW entered the in-doubt state:

YES The UOW waits to resolve its in-doubt state and determine whether recoverable resources are to be backed out or committed.

NO The UOW does not wait. CICS immediately takes whatever action you specified in the Action field.

Waittime

If you specified YES in the Wait field, specify how long the transaction is to wait before taking the action specified in the Action field to resolve an in-doubt UOW:

00,00,00

The transaction waits indefinitely.

dd,hh,mm

The length of time, in days, hours, and minutes, for which the transaction is to wait, to a maximum of 93,23,59.

If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

Note: The Waittime value takes effect only if you specify YES in the Wait field.

If the transaction definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

```
  COMMAND ===>
   Name            ETVP      Version ===> 1

   Dtimeout    ===> NO        Apply deadlock time-out (NO, 1-6800, blank)
   Indoubt     ===> BACKOUT   Abend action (BACKOUT, COMMIT, WAIT)
   Restart     ===> NO        Transaction restart facility (NO, YES)
   Spurge      ===> NO        System purgeable (NO, YES)
   Tpurge      ===> NO        Purged for terminal error (NO, YES)
   Dump        ===> YES       Produce transaction dump (YES, NO)
   Trace       ===> YES       Trace transaction activity (YES, NO)
   Confdata    ===> NO        User data trace suppression (YES, NO)
   TPname                     Transaction name for APPC partner
               ===>
               ===>
   XTPname                    Alternative TPname
               ===>
               ===>
               ===>
               ===>

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

Figure 93. Creating a transaction definition - Page 3

Provide the following information, as appropriate:

Dtimeout

Indicate whether the task should be subject to deadlock time-out, which means if the task gets suspended and remains suspended for longer than the Dtimeout value, it will be purged:

NO No deadlock time-out is required.

value The number of minutes and seconds (mmss) after which the deadlock time-out facility will terminate a suspended task, in the range 0001 through 6800.

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

Indoubt

For systems running a version of CICS prior to the 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.

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 facility:

NO The restart facility is not required.

| YES The restart facility is to be used.

Spurge
| Specifies whether or not the transaction is initially "system purgeable".

| NO The transction is not initially system purgeable.

| YES The transaction is initially system purgeable.

Tpurge
| Specify, for a non-VTAM terminal, whether or not the transaction can be purged because of a terminal error:

| NO The transaction cannot be purged.

| YES The transaction can be purged.

Dump Specifies whether or not a call is to be made to the dump domain to produce a transaction hump, 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 and therefore no transaction dump is produced.

Trace Specifies whether or not the activity of this transaction is to be traced:

| YES The activity of t his transaction is to be traced.

| NO The activity of this transaction is not to be traced.

Confdata
| Specifies whether CICS is to suppress user data from CICS trace entries when the CONFDATA system initialization parameter is set to HIDETC.

| NO CICS does not suppress any user data.

| YES CICS suppresses user data from the CICS trace points.

TPname
| Specify 1 to 64 alphanumeric or national characters for a transaction name that can be used by an APPC partner.

XTPname
As an alternative to TPname, specify a hexadecimal string of up to 128 characters for a transaction name that can be used by an APPC partner. All hexadecimal combinations are acceptable except X'40'.

If the transaction definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

```
COMMAND ===>
 Name              ETVP       Version ===> 1

 Brexit        ===>          Name of bridge exit

 Tclass       ===> NO        Task class (NO, 1-10, blank)
 PrimedSize   ===> 0         Primed storage allocation size (0-65520, blank)
 Extsec       ===> NO        External security manager used (NO, YES, N/A)
 Transec      ===> 1         Transaction security value (1-64, blank)
 Rsl          ===> 0         Resource security value (0-24, PUBLIC, blank)
 Routable     ===> NO        Routable (NO, YES)

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

Figure 94. Creating a transaction definition - Page 4

Provide the following information, as appropriate:

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 OS/390 Release 3 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.

The remaining fields on this panel apply only to systems running CICS/MVS 2.1.2 or CICS/ESA 3.3.

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.

To add the transaction definition to the data repository, press Enter.

TRNCLDEF (Transaction class definitions)

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

Availability

Transaction classes can be defined for CICS/ESA 4.1 and later systems, and CICS Transaction Server for VSE/ESA Release 1 and later systems.

Access

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 95, includes information about all existing transaction class definitions within the current context.

Select: TRNCLDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                              SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 ==TRNCLDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM=====3==
 CMD Name     Ver    Created         Changed       Description
 --- -------- ---   --------------  -------------- ----------------------
     EYUTCL01  1    1/09/97 16:01   1/09/97 16:01
     EYUTCL01  2    1/10/97 08:15   1/10/97 08:15
     EYUTCL02  1    1/09/97 16:06   1/09/97 16:06

```

Figure 95. The TRNCLDEF view

Action commands

Table 32 summarizes the action commands you can use with the TRNCLDEF view.

Table 32. TRNCLDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a transaction class definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of transaction class definitions, as described on page 73.
n/a	BRO	Browse a transaction class definition in the data repository. The format of the resulting panel is similar to that shown in Figure 96 on page 226. All of the fields are nonmodifiable.
CREate	CRE	Create a transaction class definition and add it to the data repository, as described on page 226.

Table 32. TRNCLDEF view action commands (continued)

Primary command	Line command	Description
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a transaction class in an active system, as described on page 76.
		After installation of a TRNCLDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM TRNCLS command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE TCLASS command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE TRANCLASS command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a transaction class definition from the data repository, as described on page 80.
n/a	UPD	Update a transaction class definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 96. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the TRNCLDEF view.

Creating a transaction class definition

Figure 96 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the TRNCLDEF view.

```
 COMMAND  ===>

  Name         ===> EYUTCL01  Version ===> 1
  Description  ===>
  RESGROUP     ===>
  User Data    ===>

  Maxactive    ===> 0         Max transaction active (0 - 999)
  Purgethresh  ===> NO        Purge threshold (NO, 1-1000000, blank)


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

Figure 96. Creating a transaction class definition

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the transaction class 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 transaction class.

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.

Maxactive
>Specify the maximum number of transactions in this class that are allowed to be active, in the range 0 through 999.

Purgethresh
>Define a threshold at which transactions queuing for membership in the transaction class are purged:

>**NO** No threshold; the number of transactions that can queue is unlimited.

>**number**
>>A threshold value in the range 1 through 1 000 000.

>>A value of 1 means no transactions are allowed to queue. For any other value (*n*), the size of the queue is limited to *n−1*.

>If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

To add the transaction class definition to the data repository, press Enter.

TSMDEF (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.

Availability

Temporary storage models can be defined for CICS Transaction Server for OS/390 Release 3.

Access

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 97, includes information about all existing temporary storage model definitions within the current context.

Select: TSMDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                            SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 =TSMDEF============EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM========
 CMD Name      Ver   Created         Changed       Description
 --- --------  ---   --------------  -------------- ----------------------
     EYUTSM01   1    1/09/98 16:01   1/09/98 16:01
     EYUTSM01   2    1/10/98 08:15   1/10/98 08:15
     EYUTSM02   1    1/09/98 16:06   1/09/98 16:06
```

Figure 97. The TSMDEF view

Action commands

Table 33 summarizes the action commands you can use with the TSMDEF view.

Table 33. TSMDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a temporary storage model definition to a resource group, as described on page 72.
n/a	BRO	Browse a temporary storage model definition in the data repository.
		The format of the resulting panel is similar to that shown in Figure 98 on page 229. All of the fields are nonmodifiable.
CREate	CRE	Create a temporary storage model definition and add it to the data repository, as described on page 229.
n/a	INS	For systems running CICS Transaction Server for OS/390 Release 3, install a temporary storage model in an active system, as described on page 76.
		After installation of a TSMDEF resource definition, you can enquire about the resultant object using:
		• The CICSPlex SM TSMODEL command; see *CICSPlex SM Operations Views Reference*.
		• The CICS CEMT INQUIRE TSMODEL command; see *CICS Supplied Transactions*.
		• The EXEC CICS INQUIRE TSMODEL command; see *CICS System Programming Reference*.

Table 33. TSMDEF view action commands (continued)

Primary command	Line command	Description
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a temporary storage model definition from the data repository, as described on page 80.
n/a	UPD	Update a temporary storage model definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 98. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the TSMDEF view.

Creating a temporary storage model definition

When you use the create primary (CREate) or line (CRE) action command from the TSMDEF view, a panel similar to Figure 98 is produced.

```
 COMMAND  ===>
  Name           ===> TSMODL01          Version ===> 1
  Description    ===> Model for
  RESGROUP       ===>
  User Data      ===>

  Prefix         ===> USERAPP1          Prefix for TS queues
  XPrefix        ===>

  Location       ===> AUXILIARY         TS queue in MAIN or AUXILIARY storage
  Recovery       ===> NO                Recoverable TS queue (YES, NO)
  Security       ===> NO                Security checking on queue (YES, NO)
  Pool name      ===>                   Shared TS pool name

  Remote system  ===>                   Remote system name
  Remote prefix  ===>                   Prefix used on remote system
  XRemote prefix ===>

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

Figure 98. Creating a temporary storage model definition

Provide the following information, as appropriate:

Name Specify a 1- to 8-character id for the temporary storage model 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 temporary storage model.

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 temporary storage model. CICSPlex SM makes no use of this user data.

Prefix Specify the 1- to 16-character temporary storage queue prefix to be used by CICS when a reference is made to this temporary storage model. You may modify the prefix but you cannot erase it.

> **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.

XPrefix

Specify a 1- to 32-hexadecimal character alternative to the Prefix field.

Location

Specify whether the temporary storage queue is to be held in main or auxiliary storage.

MAIN Temporary storage queues matching this model are to be held in main storage.

AUXILIARY

Temporary storage queues matching this model are to be held in auxiliary storage.

Recovery

Specify whether or not the temporary storage queues matching this model are recoverable.

NO The temporary storage queues matching this model are not recoverable.

YES The temporary storage queues matching this model are recoverable.

> **Note:** Note that recoverable temporary storage models must reside in auxiliary storage.

Security

Specify whether or not 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.

Pool name

Specify the 8-character shared temporary storage pool name. You should not specify a pool name if you are specifying a remote system.

?   **Remote system**
?   Specify the 1- to 4- character remote system name. You should not specify
?   a remote system if you are specifying shared storage pool name.

?   **Remote prefix**
?   Specify the 1- to 16-character prefix to be used by CICS when a reference
?   to the temporary storage queue is transmitted to the remote system.

| **XRemote prefix**
| Specify a 1- to 32-hexadecimal character alternative to the Remote prefix
| field.

?   To add the temporary storage model definition to the data repository, press Enter.

TYPTMDEF (Typeterm definitions)

Typeterm definitions are partial terminal definitions that describe a set of common attributes for a group of terminals.

Availability

Typeterms can be defined for all managed CICS systems.

Access

?   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 99, includes information about all existing typeterm definitions within the current context.

| **Select:** TYPTMDEF from the ADMRES menu.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                         SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
  W1 ==TYPTMDEF=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======5==
 CMD Name     Ver    Created        Changed       Description
 --- -------- ---  -------------  --------------  ----------------------
     CONSL000  1   1/09/97 16:36  1/09/97 16:36
     MRDTYPE   1   1/10/97 08:29  1/09/97 08:29  PS/2 Model 80 Simulator
     TCSN3277  1   1/09/97 16:49  1/09/97 16:49
     TYPEFEPI  1   1/10/97 14:37  1/10/97 14:37
     327R      1   1/10/97 14:48  1/10/97 14:48
```

Figure 99. The TYPTMDEF view

Action commands

Table 34 on page 232 summarizes the action commands you can use with the TYPTMDEF view.

TYPTMDEF

Table 34. TYPTMDEF view action commands

Primary command	Line command	Description
ADD *resdef version*	ADD	Add a typeterm definition to a resource group, as described on page 72.
ALTER	n/a	Apply global changes to a set of typeterm definitions, as described on page 73.
n/a	BRO	Browse a typeterm definition in the data repository. The format of the resulting panels is similar to that shown in Figure 100 on page 233 through Figure 104 on page 243. All of the fields are nonmodifiable.
CREate	CRE	Create a typeterm definition and add it to the data repository, as described on page 232.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a typeterm in an active system, as described on page 76. After installation of a TYPTMDEF resource definition, you can enquire about the resultant object using: • The CICSPlex SM TERMNL command; see *CICSPlex SM Operations Views Reference*. • The CICS CEMT INQUIRE TERMINAL command; see *CICS Supplied Transactions*. • The EXEC CICS INQUIRE TERMINAL command; see *CICS System Programming Reference*.
n/a	MAP	Display a visual map of business application services definitions using the specified definition as a starting point.
REMove *resdef version*	REM	Remove a typeterm definition from the data repository, as described on page 80.
n/a	UPD	Update a typeterm definition in the data repository. The format of the resulting panels is similar to that shown in Figure 100 on page 233 through Figure 104 on page 243. Most of the fields are modifiable.

Hyperlink fields

There are no hyperlink fields in the TYPTMDEF view.

Creating a typeterm definition

When you use the create primary (CREate) or line (CRE) action command from the TYPTMDEF view, a series of input panels is produced.

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.

Figure 100 shows the format of the first panel produced when you want to create a typeterm definition.

```
 COMMAND  ===>
  Name         ===> EYUTYP01 Version ===> 1
  Description  ===>
  RESGROUP     ===>
  User Data    ===>

  Device       ===>          Device type
  Termmodel    ===> 1        Model number (1, 2, blank)
  SessionType  ===>          VTAM SNA session type
  LDClist      ===>          Logical device code list name
  Shippable    ===> NO       Shippable to remote system (NO, YES)
  Pagesize     ===> 0  ,0    Rows, Cols (0-999, 0-999, blank)
  Altpage      ===> 0  ,0    Rows, cols (0-999, 0-999, blank)
  Altsuffix    ===>          Numeric suffix for map sets
  FMHparm      ===> NO       User-supplied data in FMH (NO, YES)
  OBoperid     ===> NO       Outboard operid used by CICS (NO, YES)
  Autopage     ===> NO       Should autopage be used (NO, YES)
  DefScreen    ===> 0  ,0    3270 devsize, Rows, Cols (0-999,0-999,blank)
  AltScreen    ===> 0  ,0    Alt 3270 devsize, Rows, Cols (0-999,0-999,blank)

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

Figure 100. Creating a typeterm definition - Page 1

Provide the following information, as appropriate:

Name Specify a 1- to 8-character name for the typeterm 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 typeterm.

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 typeterm. CICSPlex SM makes no use of this user data.

Device

Identify the device type to which this definition applies.

Termmodel

If the device is a component of the 3270 Information Display System, specify the model number of the terminal:

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.

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.

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

SessionType
Specify the type of session that can be used for a VTAM SNA logical unit.

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.

Shippable
Specify YES or NO to indicate whether the definition is allowed to be sent to a remote system if the device tries to initiate a remote transaction.

Pagesize
Specify the default page size to be used by BMS when the default screen size is specified in a profile definition (PROFDEF).

The row and column values must each be in the range 0 through 999. Rows × 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.

Altpage
Specify the page size to be used by BMS when the alternate screen size is specified in a profile definition (PROFDEF).

The row and column values must each be in the range 0 through 999. Rows × 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.

Altsuffix
Specify a 1-character numeric suffix that BMS is to append to map set names:

blank   Do not append a suffix.

number
Append this suffix to map set names if the screen size being used is the same value as the alternate screen size (that is, ALTERNATE is specified in the Scrnsize field of the profile definition, or the default and alternate screen sizes are the same).

FMHparm
Specify YES or NO to indicate whether user-supplied parameters should be accepted in the function management header built by BMS.

OBoperid
For 3790 and 3770 batch data interchange logical units, specify YES or NO to indicate whether the outboard operator identifiers should be used by CICS to support the BMS routing facilities required for this terminal.

Autopage

Specify YES (for printers) or NO (for display devices) to indicate whether BMS autopaging is to be used.

DefScreen

Specify the 3270 screen size or 3270 printer page size to be used when attached to a transaction that has the default screen size specified in its profile definition (PROFDEF).

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.

AltScreen

Specify the 3270 screen size to be used for a transaction that has the alternate screen size specified in its profile definition (PROFDEF).

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.

If the typeterm definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 101 shows the format of the second typeterm definition panel.

```
 COMMAND   ===>
  Name              EYUTYP01 Version ===> 1

  Query        ===> NO      User query structured field (NO,COLD,ALL)
  Sendsize     ===> 0       Maximum send size  (0-30720, blank)
  Receivesize  ===> 256     Maximum receive size (0-30720, blank)
  Bracket      ===> YES     Bracket protocol enforced (YES, NO)
  Logmode      ===>         Logmode name
  Autoconnect  ===> NO      Autoconnect for terminal (NO, YES)
  Ati          ===> NO      Transactions started via ATI (NO, YES)
  Tti          ===> YES     Transactions started via user (YES, NO)
  Createsess   ===> NO      Sessions to be created (NO, YES)
  Relreq       ===> NO      CICS to release LU (NO, YES)
  Discreq      ===> YES     Disconnect requests honored (YES, NO)
  Nepclass     ===> 0       Nep transaction class (0-255, blank)
  Signoff      ===> YES     Automatic timeout (YES, NO, LOGOFF)
  Xrfsignoff   ===> NOFORCE Signon characteristics (NOFORCE, FORCE)
  Routedmsgs   ===> ALL     Messages routed to terminal (ALL, NONE, SPECIFIC)
  Logonmsg     ===> NO      Logon message initiated (NO, YES)


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

Figure 101. Creating a typeterm definition - Page 2

Provide the following information, as appropriate:

Query Indicate whether the QUERY structured field is to be used to determine the characteristics of the device:

NO Do not use the QUERY function.

ALL Use the QUERY function to determine the characteristics of the device each time the device is connected.

COLD Use the QUERY function to determine the characteristics of the

device only when the device is first connected after a cold start of CICS. The device characteristics are stored in the CICS global catalog for use on subsequent warm and emergency starts.

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.

Receivesize
Specify the maximum size of a request unit that can satisfy a VTAM RECEIVE 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.

Bracket
Specify YES or NO to indicate whether bracket protocol is to be enforced for this logical unit.

Logmode
Specify how CICS is to build the BIND to be sent to the logical unit:

blank Use the BIND image generated by the CICS definitions for this device (TYPTMDEF and TERMDEF).

name Use this 1- to 8-character LOGMODE name from a VTAM logon mode table that was set up for use by this logical unit.

0 Use the BIND image contained in the CINIT coming from the logical unit.

Autoconnect
Indicate whether autoconnect processing is to occur for the terminal:

NO Do not attempt to bind sessions when the connection is established.

YES Attempt to bind sessions when the connection is established.

Ati Specify YES or NO to indicate whether transactions can be started at the terminal by automatic transaction initiation.

Tti Specify YES or NO to indicate whether transactions can be started at the terminal by a user.

Createsess
Specify YES or NO to indicate whether sessions can be created by internally generated session requests.

Relreq
Specify YES or NO to indicate whether CICS is to release the logical unit upon request by another VTAM application program.

Discreq
For VTAM devices, specify YES or NO to indicate whether disconnect requests are to be honored.

Nepclass
Identify the node error program transaction class:

0 Link to the default node error program module.

value Transaction class for the node error program module, in the range 1 through 255.

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

Signoff

Indicate whether the terminal should be timed out automatically:

YES When the specified time has elapsed since the last input from the operator, the terminal is automatically signed off from CICS.

LOGOFF

When the specified time has elapsed since the last input from the operator, the terminal is automatically signed off from CICS and then logged off from VTAM.

NO The terminal will not be timed out.

Xrfsignoff

Specify FORCE or NOFORCE to indicate whether CICS should force sign-off of these terminals after an extended recovery facility (XRF) takeover.

Routedmsgs

Specify which messages are to be routed to this terminal by an EXEC CICS ROUTE command:

ALL Route to this terminal messages that are destined for all terminals as well as those specifically destined for this terminal.

NONE

Do not route any messages to this terminal, whether they are destined for all terminals or for this terminal specifically.

SPECIFIC

Route messages to this terminal when they are destined specifically for this terminal, but not when they are destined for all terminals.

Logonmsg

Specify YES or NO to indicate whether or not the 'good morning' transaction, specified in the system initialization parameter GMTRAN, should be automatically initiated when the logical unit is first logged on to CICS through VTAM.

If the typeterm definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 102 on page 238 shows the format of the third typeterm definition panel.

TYPTMDEF

```
 COMMAND  ===>
  Name             EYUTYP01   Version ===> 1

  Buildchain   ===> NO         Perform chain assembly (NO, YES)
  Userarealen  ===> 0          User area size (0-255, blank)
  Ioarealen    ===> 0     ,0   I/O area size, Alt size (0-32767, blank)
  Uctran       ===> NO         Uppercase translation required (YES, NO)
  Recovoption  ===> SYSDEFAULT Recovery option (SYSDEFAULT,CLEARCONV,
                                      RELEASESESS, UNCONDREL, NONE)
  Recnotify    ===> NONE       Recovery notification (NONE,MSG,TRAN)
  Aplkybd      ===> NO         APL keyboard feature supported (NO, YES)
  Apltext      ===> NO         APL text feature supported (NO, YES)
  Audiblealarm ===> NO         Audible alarm feature supported (NO, YES)
  Color        ===> NO         Extended color feature supported (NO, YES)
  Copy         ===> NO         Copy feature supported (NO, YES)
  Dualcasekybd ===> NO         Dualcase keyboard supported (NO, YES)
  Extendedds   ===> NO         3270 datastream extensions supported (NO, YES)
  Hilight      ===> NO         Extended highlight facility supported (NO, YES)
  Katakana     ===> NO         Katakana support required (NO, YES)


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

Figure 102. Creating a typeterm definition - Page 3

Provide the following information, as appropriate:

Buildchain

Indicate whether or not CICS is to perform chain assembly prior to passing 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.

Userarealen

Specify the length, in bytes, of the user area for this 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.

Ioarealen

Specify the length, in bytes, of the TIOA to be passed to a transaction:

value1 The minimum size of a TIOA to be passed to an application program when a RECEIVE command is issued.

value2 If value2 is greater than or equal to value1 and the size of an input message exceeds value1, CICS uses a TIOA value2 bytes long. If value2 is not specified, or is less than value1, it defaults to the value of value1.

The Ioarealen values must be in the range 0 through 32767. If you leave these fields blank, CICSPlex SM uses the default values for your CICS environment, if there are any.

Uctran

Specify whether the input data stream from a terminal is to be translated to uppercase:

NO No uppercase translation is performed.

TRANID

When the input data stream includes a transaction ID, CICS translates it to uppercase before attempting to locate its definition. However, all the input data, both the transaction ID and the program data, is passed to the program without any translation.

YES All the data input from the terminal, both the transaction ID, if present, and the program data, is translated to uppercase before any processing.

Recovoption

Specify how sessions should be recovered in a CICS system running with VTAM persistent sessions, or with XRF:

SYSDEFAULT

VTAM persistent sessions: CICS selects the optimum procedure to recover a session on system restart within the persistent session delay interval.

XRF: CICS selects the optimum procedure to recover a busy session at takeover.

CLEARCONV

Prevents CICS from sending an end-bracket indicator to close an in-bracket session. Instead CICS sends a CLEAR (or UNBIND) request, to reset the conversation states. 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 the takeover (in the case of XRF).

NONE

VTAM persistent sessions: The terminal session is not to be recovered at system restart within the persistent session delay interval. In effect, the terminal has no persistent sessions support.

XRF: The logon state is not tracked by the alternate system, and the terminal session is not automatically recovered after a takeover. In effect, the terminal has no XRF support. After takeover, the terminal is reconnected automatically by the alternate system, if the Autoconnect value is YES.

RELEASESESS

Requires CICS to send an UNBIND request to release the active session only if the session was busy at the time of system restart or XRF takeover.

UNCONDREL

Requires CICS to send an UNBIND request to release the active session, whether or not the session was busy at the time of system restart or XRF takeover.

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.

Aplkybd

Specify YES or <u>NO</u> to indicate whether or not the 3270 device has the APL keyboard feature.

Apltext

Specify YES or <u>NO</u> to indicate whether or not the 3270 device has the APL text feature.

Audiblealarm

Specify YES or <u>NO</u> to indicate whether or not the audible alarm feature is available for a 3270 display device or printer attached to a 3651 controller.

Color   Specify YES or <u>NO</u> to indicate whether or not the 3270 device or SCS printer has the extended color feature, which allows colors to be selected for each field or character.

Copy   Specify YES or <u>NO</u> to indicate whether or not the copy feature for a 3270 display device or printer is included in the 3270 control unit.

Dualcasekybd

Specify YES or <u>NO</u> to indicate whether or not a 3270 display device has a typewriter keyboard or operator console keyboard, both of which can transmit uppercase and lowercase data.

Extendedds

Specify YES or <u>NO</u> to indicate whether or not the 3270 device or SCS printer supports extensions to the 3270 data stream.

Hilight

Specify YES or <u>NO</u> to indicate whether or not the 3270 device or SCS printer has the extended highlight facility, which enables fields or characters to be displayed in reverse-video, underline mode, or blink (3270 only).

Katakana

Specify YES or <u>NO</u> to indicate whether or not 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.

If the typeterm definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

```
  COMMAND  ===>
   Name             EYUTYP01 Version ===> 1

   Lightpen     ===> NO       Selector pen feature supported (NO, YES)
   Msrcontrol   ===> NO       Magnetic slot reader available (NO, YES)
   Obformat     ===> NO       Outboard formatting to be used (NO, YES)
   Partitions   ===> YES      Device using partitions (NO, YES)
   Printadapter ===> NO       Print adapter to be used (NO, YES)
   Progsymbols  ===> NO       PS facility available (NO, YES)
   Validation   ===> NO       Extended validation feature suppoted (NO, YES)
   Formfeed     ===> NO       Formfeed feature supported (NO, YES)
   Horizform    ===> NO       Use horizontal tabbing (NO, YES)
   Verticalform ===> NO       Use vertical tabbing (NO, YES)
   Textkybd     ===> NO       Text-keyboard feature supported (NO, YES)
   Textprint    ===> NO       Text-print feature supported (NO, YES)
   Outline      ===> NO       Field outlining supported (NO, YES)
   Sosi         ===> NO       Mixed EBCDIC and DBCS supported (NO, YES)
   Backtrans    ===> NO       Bkground transparency feature supported (NO, YES)
   Cgcsgid      ===> 0        CGCS Id (0-655335, blank)

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

Figure 103. Creating a typeterm definition - Page 4

Provide the following information, as appropriate:

Lightpen
Specify YES or NO to indicate whether or not a 3270 display device has the selector pen feature.

Msrcontrol
Specify YES or NO to indicate whether or not an 8775 or 3643 terminal has a magnetic slot reader.

Obformat
Specify YES or NO to indicate whether or not BMS outboard formatting should be used. You can specify YES for the following devices:
- 3650, SESSIONTYPE(3270)
- LU type 2, for an 8100 Information System using the DPPX operating system with DPPX/DPS Version 2 for presentation services.

Partitions
Specify YES or NO to indicate whether or not the device is to use partitions. This option is not valid for SCS printers.

Printadapter
For 3275 display devices, specify YES or NO to indicate whether or not the printer adapter feature and corresponding 3284 Printer Model 3 are available.

For LU type 2 logical units, specify YES or NO to indicate whether or not printer allocation for print requests initiated by the PRINT key or by an ISSUE PRINT command should be handled according to the printer authorization matrix for both VTAM and non-VTAM attachments.

Progsymbols
For 3270 devices or SCS printers, specify YES or NO to indicate whether or not the programmed symbol (PS) facility can be used.

Validation

Specify YES or NO to indicate whether or not an 8775 or 3290 device has the extended validation feature.

Formfeed

Specify YES or NO to indicate whether or not the device has the forms feed feature, which means BMS should use the forms feed character when formatting output documents.

Horizform

Specify YES or NO to indicate whether or not the device has the horizontal form feature, which means BMS should use horizontal tabbing when formatting output documents.

Verticalform

Specify YES or NO to indicate whether or not the device has the vertical form feature, which means BMS should use vertical tabbing when formatting output documents.

Textkybd

Specify YES or NO to indicate whether or not the 3270 device has the text-keyboard feature.

Textprint

Specify YES or NO to indicate whether or not the 3288 printer has the text-print feature.

Outline

Specify YES or NO to indicate whether or not the device supports field outlining.

Sosi   Specify YES or NO to indicate whether or not the device supports mixed EBCDIC and double-byte character set (DBCS) fields.

Backtrans

Specify YES or NO to indicate whether or not the device has the background transparency feature.

Cgcsgid

Specify a coded graphic character set global identifier (CGCSGID), in the range 0 through 655335.

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

If the typeterm definition is complete, press Enter. If you want to specify other attributes, issue the DOWN command.

Figure 104 on page 243 shows the format of the fifth typeterm definition panel.

```
  COMMAND  ===>
   Name               EYUTYP01    Version ===> 1

   Ascii        ===> NO          ASCII feature supported (NO, 7, 8, blank)
   Errlastline  ===> NO          Display error messages (NO, YES)
   Errintensify ===> NO          Display errmsgs in intensified fields (NO,YES)
   Errcolor     ===> NO          Display errmsgs in color (NO,BLUE,RED,PINK,
                                    GREEN,TURQUOISE,YELLOW,NEUTRAL)
   Errhilight   ===> NO          Error msg hilight (NO,BLINK,REVERSE,UNDERLINE)


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

Figure 104. Creating a typeterm definition - Page 5

Provide the following information, as appropriate:

Ascii Indicate whether or not the terminal supports an ASCII feature:

> **NO** The terminal does not support an ASCII feature.
>
> **7** The terminal supports the ASCII-7 feature.
>
> **8** The terminal supports the ASCII-8 feature.

> If you leave this field blank, CICSPlex SM uses the default value for your CICS environment, if there is one.

Errlastline
> Indicate where error messages should be displayed:

> **NO** Display error messages at the current cursor position and without any additional attributes.
>
> **YES** Display error messages starting at the beginning of the line nearest the bottom of the screen such that the message will fit on the screen.

Errintensify
> Specify YES or NO to indicate whether or not error messages should be displayed in an intensified field.

Errcolor
> Specify NO or a color to indicate whether or not error messages should be displayed in color. The colors you can specify are:
> > BLUE
> > GREEN
> > NEUTRAL
> > PINK
> > RED
> > TURQUOISE
> > YELLOW.

Errhilight
> Specify NO or a form of highlighting to indicate whether or not error messages should be displayed with highlighting. The forms of highlighting you can specify are:
> > BLINK
> > REVERSE
> > UNDERLINE.

To add the typeterm definition to the data repository, press Enter.

Chapter 7. Administration views

This chapter contains detailed descriptions of the views that you use to create and maintain business application services definitions.

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 105.)
- 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.

```
 26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
COMMAND  ===>                                        SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
 W1 =MENU===========CONTEXT===SCOPE=====26MAR1999==11:30:30=CPSM======10=
CMD Name             Description
--- -------------------------------------------
    ADMBAS    Business Application Services Administration Views
     RESDESC   Resource Descriptions
     RASINDSC  Resource Assignments in Description
     RESINDSC  Resource Groups in Description
     RASGNDEF  Resource Assignments
     RDSCPROC  Resource Description Process
     SYSRES    CICS System Resources
     SYSLINK   CICS System Links
     RASPROC   Resource Assignment Process
     RESGROUP  Resource Groups
     RESINGRP  Resources in Resource Group
```

Figure 105. The ADMBAS menu

Note: You need to use the CICSSYS view, which is part of the Topology component, to specify resource installation requirements. See "Installing resources automatically" on page 35. The CICSSYS view is described in the *CICSPlex SM Administration* book.

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

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

The remainder of this chapter 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:

common administration actions

ADD   To add an association between two definitions you can:

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

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 SM 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 SM Administration* book.

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

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

RASGNDEF (Resource assignments)

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.

Access

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 106 on page 248, includes information about all resource assignments within the current context.

Select: RASGNDEF from the ADMBAS menu.

```
 26MAR1999  19:33:51 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                             SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =RASGNDEF==========EYUPLX01=EYUPLX01=26MAR1999==19:33:51=CPSM==========9===
 CMD Name     ResGroup ResType  Target   Usage  Related  Description
 --- -------- -------- -------- -------- ------ -------- ----------------------
     EYUBAA03 EYUBAG01 FILEDEF  EYUCSG03 REMOTE EYUMAS4A SSET - Allocate the Fil
     EYUBAA04 EYUBAG02 TRANDEF  EYUMAS1A REMOTE EYUCSG03 SSET - Allocate the Tra
     EYUBAA05 EYUBAG02 PROGDEF  EYUCSG03 LOCAL           SSET - Allocate the Pro
     EYUBAA12 EYUBAG05 PROGDEF  EYUCSG01 LOCAL           SSET - Autoinst Program
     EYUBAA13 EYUBAG06 TERMDEF  EYUCSG01 LOCAL
     EYUBAA14 EYUBAG06 TYPTMDEF EYUCSG01 LOCAL
     EYUBAA15 EYUBAG06 PROGDEF  EYUCSG01 LOCAL
     EYUBAA16 EYUBAG06 TRANDEF  EYUCSG01 LOCAL
     EYUBAA17 EYUBAG06 TSMDEF   EYUCSG01 LOCAL           TSModel definition assig
```

Figure 106. The RASGNDEF view

Action commands

Table 35 summarizes the action commands you can use with the RASGNDEF view.

Table 35. RASGNDEF view action commands

Primary command	Line command	Description
ADD *rasgn*	ADD	Add an association between a resource assignment and a resource description, as described in "Adding a resource assignment to a resource description" on page 254.
n/a	BRO	Browse a resource assignment.
		The format of the resulting panels is similar to that shown in Figure 107 on page 249 and Figure 108 on page 252. All of the fields are nonmodifiable.
CREate	CRE	Create a resource assignment and add it to the data repository, as described in "Creating a resource assignment" on page 249.
n/a	MAP	Display a visual map of business application services definitions using the specified assignment as a starting point.
REMove *rasgn*	REM	Remove a resource assignment from the data repository.
n/a	UPD	Update a resource assignment in the data repository.
		The format of the resulting panels is similar to that shown in Figure 107 on page 249 and Figure 108 on page 252. Most of the fields are modifiable.

Hyperlink fields

Table 36 shows the hyperlink field on the RASGNDEF view.

Table 36. RASGNDEF view hyperlink field

Hyperlink field	View displayed	Description
ResGroup	RESINGRP	Displays the resources associated with the specified resource group.

Creating a resource assignment

When you use the create primary (CREate) or line (CRE) action command from the RASGNDEF view, a series of input panels is produced.

The first panel, illustrated in Figure 107, prompts you to provide information about the type of CICS resource, how the resources are accessed and used, and what CICS systems or CICS system groups the resources are to be assigned to.

```
 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 107. Creating a resource assignment - Page 1

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 13 on page 67.

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

Note: 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.

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 transacion 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.

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.

Figure 108 shows the format of the second panel for creating a resource assignment.

```
COMMAND  ===>

Name                    EYUBAA03

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

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

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

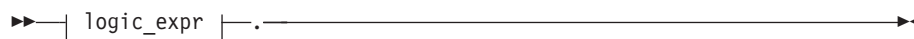*Figure 108. Creating a resource assignment - Page 2*

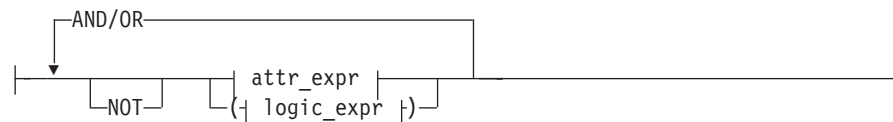Provide the following information, as appropriate:

Filter string expression

(Optional.) Identifies attributes that are to be used in selecting the resources to be 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:

attr_expr:

```
├──attroper value────────────────────────────────────────────────┤
```

where:

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

oper   Is one of the following comparison operators:
    <   Less than
    <=   Less than or equal to
    =   Equal to
    >=   Greater than or equal to
    >   Greater than
    ¬=   Not equal to

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

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

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

  ```
  TRANID=PAY*
  ```

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

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

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

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

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

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

AND/OR

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

```
attr_expr AND attr_expr.
```

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

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

has a different meaning than this one:

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

NOT   Negates one or more attribute expressions.

You can negate a single attribute expression, like this:

```
NOT attr_expr
```

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

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

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

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

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

```
                  ┌─ , ◄─────┐
►►─────▼── 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.

Press Enter to add the resource assignment to the data repository.

Adding a resource assignment to a resource description

Figure 109 on page 255 shows the format of the panel produced when you use the add primary or line action command (ADD) from the RASGNDEF view.

```
   COMMAND  ===>

     Assignment Name   ===> EYUBAA01

     Description Name  ===>

     Description       ===>

     Group Name        ===>

     Target Scope      ===>

     Related Scope     ===>


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

Figure 109. Adding a resource assignment to a resource description

Provide the following information, as appropriate:

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.

Press Enter to add the resource assignment to the resource description in the data repository.

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 "Checking a set of resources" on page 25 and "Checking CICS system assignments" on page 27.

RASINDSC (Resource assignments in description)

Access

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 110, includes information about all resource descriptions within the current context and the resource assignments associated with them.

Select: RASINDSC from the ADMBAS menu.

```
 26MAR1999  19:34:15 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                             SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 =W1 =RASINDSC==========EYUPLX01=EYUPLX01=26MAR1999==19:34:15=CPSM==========7===
 CMD Name      Assign    ResGroup  Target    Related  Description
 --- --------  --------  --------  --------  -------- ------------------------
     EYUBAD02  EYUBAA04
     EYUBAD02  EYUBAA05
     EYUBAD05  EYUBAA12
     EYUBAD05  EYUBAA13
     EYUBAD05  EYUBAA14
     EYUBAD05  EYUBAA15
     EYUBAD05  EYUBAA16
```

Figure 110. The RASINDSC view

Action commands

Table 37 on page 257 summarizes the action commands you can use with the RASINDSC view.

Table 37. RASINDSC view action commands

Primary command	Line command	Description
n/a	BRO	Browse the association between a resource description and a resource assignment.
		The format of the resulting panel is similar to that shown in Figure 111. All of the fields are nonmodifiable.
n/a	MAP	Display a visual map of business application services definitions using the specified description as a starting point.
REMove *resdesc rasgn*	REM	Remove the association between a resource description and a resource assignment.
n/a	UPD	Update the association between a resource description and a resource assignment, as described in "Updating a resource description-to-assignment association".

Hyperlink fields

Table 38 shows the hyperlink fields on the RASINDSC view.

Table 38. RASINDSC view hyperlink fields

Hyperlink field	View displayed	Description
Assign	RASGNDEF	Displays the specified resource assignment.
ResGroup	RESINGRP	Displays the resources associated with the specified resource group.

Updating a resource description-to-assignment association

Figure 111 shows the format of the panel produced when you use the update line action command (UPD) from the RASINDSC view.

```
  COMMAND  ===>

   Resource Description        EYUBAD01     Resource description definition
   Resource Assignment         EYUBAA01     Resource assignment definition

   Description          ===>

   Resource Group       ===> EYUBAG01     Optional Resource Group

   Target Scope         ===> EYUCSG03     Optional Target scope
   Related Scope        ===>              Optional Related scope


  Press ENTER to update Resource Assignment in Description.
  Type END or CANCEL to cancel without updating.
```

Figure 111. 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 "Checking a set of resources" on page 25 and "Checking CICS system assignments" on page 27.

RASPROC (Resource assignment process)

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.

Access

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 112 on page 259 is an example of the RASPROC view.

Select: RASPROC from the ADMBAS menu.

You can scroll to the right to see additional information, as shown in Figure 113.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1      ALT WIN ===>
 >W1 =RASPROC==========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3========
 CMD Resource Ver Type     Use    Mode  Target   Related  Assign   Group    Ref
 --- -------- --- -------- ------ ----- -------- -------- -------- -------- Res
     EYUFIL07   1 FILEDEF  LOCAL  N/A   EYUCSG03          EYUBAA03 EYUBAG01
     EYUFIL08   1 FILEDEF  LOCAL  N/A   EYUCSG03          EYUBAA03 EYUBAG01
     EYUFIL09   1 FILEDEF  LOCAL  N/A   EYUCSG03          EYUBAA03 EYUBAG01

```

Figure 112. The RASPROC view (left side)

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1      ALT WIN ===>
 <W1 =RASPROC==========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
 CMD Resource Referenc Ref Type     Alias
 --- -------- Resource Ver -------- --------
     EYUFIL07
     EYUFIL08
     EYUFIL09

```

Figure 113. The RASPROC view (right side)

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 250.

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.

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

Hyperlink field	View displayed	Description
Resource	xxxxDEF	Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).
Group	RESINGRP	Displays the resources associated with the specified resource group.
Referenc Resource	xxxxDEF	Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).

RDSCPROC (Resource description process)

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)

Access

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 114 on page 261 is an example of the RDSCPROC view.

Select: RDSCPROC from the ADMBAS menu.

You can scroll to the right to see additional information, as shown in Figure 115.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------------
COMMAND  ===>                                               SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
>W1 =RDSCPROC==========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM=====3========
CMD Resource Ver Type     Use    Mode  Target   Related  Assign   Group    ResD
--- -------- --- -------- ------ ----- -------- -------- -------- -------- ----
    EYUFIL07   1 FILEDEF  LOCAL  N/A   EYUCSG03          EYUBAA03 EYUBAG01 EYUB
    EYUTRN08   2 TRANDEF  LOCAL  N/A   EYUCSG03          EYUBAA03 EYUBAG01 EYUB
    EYUPRG09   1 PROGDEF  LOCAL  N/A   EYUCSG03          EYUBAA03 EYUBAG01 EYUB
    EYUTSM01   1 TSMDEF   LOCAL  N/A   EYUCSG03          EYUBAA04 EYUBAG01 EYUB
    EYUTSM02   3 TSMDEF   LOCAL  N/A   EYUCSG03          EYUBAA04 EYUBAG01 EYUB
```

Figure 114. The RDSCPROC view (left side)

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
COMMAND  ===>                                           SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
<W1 =RDSCPROC=========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
CMD Resource ResDesc  Referenc Ref Type    Alias
--- -------- -------- Resource Ver -------- --------
    EYUFIL07 EYUBAD01
    EYUTRN08 EYUBAD01
    EYUPRG09 EYUBAD01
```

Figure 115. The RDSCPROC view (right side)

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 250.

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.

Action commands

There are no actions for the RDSCPROC view.

Hyperlink fields

Table 40 shows the hyperlink fields on the RDSCPROC view.

Table 40. RDSCPROC view hyperlink fields

Hyperlink field	View displayed	Description
Resource	xxxxDEF	Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).
Group	RESINGRP	Displays the resources associated with the specified resource group.
Referenc Resource	xxxxDEF	Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).

RESDESC (Resource descriptions)

A resource description identifies a set of logically related resource definitions that can be:
- Installed in CICS systems that support resource installation
- Named as the scope for CICSPlex SM requests

Access

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 116, includes information about all resource descriptions within the current context.

Select: RESDESC from the ADMBAS menu.

```
 26MAR1999  19:33:51 ----------- INFORMATION DISPLAY -------------------------
 COMMAND  ===>                                               SCROLL ===> PAGE
 CURR WIN ===> 1       ALT WIN ===>
  W1 =RESDESC==========EYUPLX01=EYUPLX01=26MAR1999==19:33:51=CPSM=========4===
 CMD Name      Scope  Scope     Description
 --- --------  -----  Name----  ----------------------------
     EYUBAD01  YES    WLMIVP    SSET - WLM IVP Application
     EYUBAD02  YES    CPUONLY   SSET - CPU Only Application
     EYUBAD05  YES    COMMON    SSET - Common Definitions
     EYUBAD09  NO               Test Application
```

Figure 116. The RESDESC view

Action commands

Table 41 summarizes the action commands you can use with the RESDESC view.

Table 41. RESDESC view action commands

Primary command	Line command	Description
n/a	BRO	Browse a resource description.
		The format of the resulting panels is similar to that shown in Figure 117 on page 264 and Figure 118 on page 266. All of the fields are nonmodifiable.
CREate	CRE	Create a resource description and add it to the data repository, as described in "Creating a resource description" on page 264.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install the resources associated with the resource description into active systems, as described in "Installing a resource description" on page 267.
n/a	MAP	Display a visual map of business application services definitions using the specified description as a starting point.
REMove *resdesc*	REM	Remove a resource description from the data repository.

Table 41. RESDESC view action commands (continued)

Primary command	Line command	Description
n/a	REP	For systems running CICS/ESA 4.1 or later, replace the resources associated with one resource description with the resources associated with another description, as described in "Replacing a resource description" on page 268.
n/a	UPD	Update a resource description in the data repository. The format of the resulting panels is similar to that shown in Figure 117 and Figure 118 on page 266. Most of the fields are modifiable.

Hyperlink fields

Table 42 shows the hyperlink field on the RESDESC view.

Table 42. RESDESC view hyperlink field

Hyperlink field	View displayed	Description
Name	RASINDSC	Displays the resource assignments associated with the specified resource description.

Creating a resource description

When you use the create primary (CREate) or line (CRE) action command from the RESDESC view, a series of input panels is produced.

Figure 117 shows the format of the first panel produced when you want to create a resource description.

```
  COMMAND  ===>

    Name               ===> EYUBAD03
    Description        ===> SSET - Test Application

    Valid Scope        ===> NO        Add to Topology Scope Set (YES,NO)
    Scope Name         ===>           Name to be used as Scope

    Model              ===>           Resource Description copy model

    ResGroup Scope     ===>           Scope applied to associated ResGroups

    Auto Install       ===> NO        Add Description Resources to Scope

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

Figure 117. Creating a resource description - Page 1

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 CICSplex.

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 118 shows the format of the second panel for creating a resource description.

```
COMMAND  ===>

Name       EYUBAD03

ResType    ResGroup  Target  Related
-------    --------  ------- --------
CONNDEF  =>
DB2CDEF  =>
DB2EDEF  =>
DB2TDEF  =>
DOCDEF   =>
ENQMDEF  =>
FENODDEF =>
FEPOODEF =>
FEPRODEF =>
FETRGDEF =>
FILEDEF  =>
FSEGDEF  =>
JRNLDEF  =>
JRNMDEF  =>
LSRDEF   =>
MAPDEF   =>
PARTDEF  =>
PROCDEF  =>
PROFDEF  =>
PROGDEF  =>
PRTNDEF  =>
RQMDEF   =>
SESSDEF  =>
TCPDEF   =>
TDQDEF   =>
TERMDEF  =>
TRNCLDEF =>
TRANDEF  =>
TSMDEF   =>
TYPTMDEF =>


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

Figure 118. 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.

Installing a 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.

Figure 119 illustrates the panel for installing a resource description.

```
 COMMAND  ===>

  Name                EYUBAD03     Description to be installed


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

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

Figure 119. Installing a resource description

Provide the following information, as appropriate:

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

NO No checking is performed.

FULL Perform both INACTIVE and RELEASE checking.

INACTIVE

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

RELEASE

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

State Check

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

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

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

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 "How installation errors are handled" on page 40.

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.

```
 COMMAND  ===>

  Name                    EYUBAD02     Description to be installed
  Installed Name  ===>  EYUBAD03     Description to be replaced

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

 Press ENTER to replace Resource Description.
 Enter END or CANCEL to cancel without replacing.
```

Figure 120. Replacing a resource description

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.

RESDESC

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 "How installation errors are handled" on page 40.

RESGROUP (Resource groups)

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.

Access

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 121, includes information about all resource groups within the current context.

Select: RESGROUP from the ADMBAS menu.

```
 26MAR1999  19:33:51 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                  SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =RESGROUP==========EYUPLX01=EYUPLX01=26MAR1999==19:33:51=CPSM=========4===
 CMD Name     Description                      Restype  ResVer  Pattern
 --- -------- -----------------------------    -------- ------  --------
     EYUBAG01 SSET - WLM IVP Application
     EYUBAG02 SSET - CPU Only Application
     EYUBAG05 SSET - Autoinst Programs
     EYUBAG06 SSET - Common Defs
```

Figure 121. The RESGROUP view

Action commands

Table 43 summarizes the action commands you can use with the RESGROUP view. Table 44 on page 271 identifies the overtype fields that you can use with the RES action command.

Table 43. RESGROUP view action commands

Primary command	Line command	Description
n/a	ADD	Add an association between a resource group and a resource description, as described in "Adding a resource group to a resource description" on page 281.
n/a	BRO	Browse a resource group definition. Neither of the fields is modifiable.

Table 43. RESGROUP view action commands (continued)

Primary command	Line command	Description
CREate	CRE	Create a resource group and add it to the data repository, as described in "Creating a resource group" on page 272.
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install the resources associated with the resource group in an active system, as described in "Installing a resource group" on page 275.
n/a	MAP	Display a visual map of business application services definitions using the specified group as a starting point.
REMove *resgroup*	REM	Remove a resource group from the data repository. **Note:** You cannot remove a resource group if it is currently named in a resource description, resource assignment, or description-to-assignment association. You must first identify a new resource group or remove the RESDESC, RASGNDEF, or RASINDSC definition altogether.
n/a	RES	Add multiple resource definitions of the specified type to a resource group, as described in "Adding resource definitions to a resource group" on page 273. When you issue the RES command, you can enter a resource type value in the Restype field. If you omit the resource type at this stage, a selection list is displayed showing available resource types. You can also specify a version number in the ResVer field and a generic resource name in the Pattern field to limit the list of resource definitions that is displayed. **Note:** To add a single resource definition to a resource group, you can use the ADD action command from the appropriate resource definition view (for example, the FILEDEF view to add a file definition).
n/a	UPD	Update a resource group definition. Only the Description field is modifiable; you cannot change the resource group name.

Table 44. RESGROUP view overtype fields

Field name	Value
Restype	The type of resource definitions to be added to the group. For a list of valid resource types, see Figure 13 on page 67.
ResVer	A version number in the range 1 to 15, to limit the list to resource definitions of the specified version.
Pattern	A generic resource name, to limit the list to resource definitions that match the specified pattern.

Hyperlink fields

Table 45 shows the hyperlink field on the RESGROUP view.

Table 45. RESGROUP view hyperlink field

Hyperlink field	View displayed	Description
Name	RESINGRP	Displays the resources associated with the specified resource group.

Creating a resource group

Figure 122 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 122. 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.

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 123 appears.

```
COMMAND ===>                                    Scroll ===> PAGE
Resource Type requires a specific value.
Select a single entry or enter END or CANCEL to terminate.

      Available values for Table: RESGROUP  Attribute: RESTYPE

C Value
- -----------
- CONNDEF
- DB2CDEF
- DB2EDEF
- DB2TDEF
- DOCDEF
- ENQMDEF
- FENODDEF
- FEPOODEF
- FEPRODEF
- FETRGDEF
- FILEDEF
- FSEGDEF
- JRNLDEF
- JRNMDEF
- LSRDEF
- MAPDEF
- PARTDEF
- PROCDEF
- PROFDEF
- PROGDEF
- PRTNDEF
- RQMDEF
- SESSDEF
- TCPDEF
- TDQDEF
- TERMDEF
- TRANDEF
- TRNCLDEF
- TSMDEF
- TYPTMDEF
```

Figure 123. Selecting a resource type

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 124 on page 274 appears.

```
  COMMAND ===>                                            Scroll ===> PAGE

     Resource Group      EYUBAG04
     Resource Type       CONNDEF

  Sel    Name     Ver Description                       Error
  ---    -------- --- ------------------------------- --------------------
         C00A       1 System A Connection
         C00A       2 System A Connection - Test
         C00C       1 System C Connection
```

Figure 124. Selecting resource definitions to be added to a resource group

This panel provides the following information:

Resource Group
> The name of the resource group to which resource definitions are to be added.

Resource Type
> The resource type that you specified in the Restype field when you issued the RES command.

The remainder of the panel lists resource definitions of the specified type. If you also specified a version in the ResVer field or a generic resource name in the Pattern field of the RESGROUP view when you issued the RES command, the list is limited to definitions that match your criteria.

For each resource definition, the following information is provided:

Name The name of the resource definition.

Ver The version level of the definition.

Description
> A description of the definition, if one was supplied when it was created.

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 "Checking a set of resources" on page 25.

Installing a resource group

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

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

Figure 125 illustrates the first panel for installing a resource group.

```
 COMMAND  ===>

    Group Name            EYUBAG01      Resource Group
    Assignment     ===>                 Resource Assignment name
    Type           ===>                 Resource Type to process

    Ref Assignment ===>                 Referenced Resource Assignment name

    Target Scope   ===>
    Related Scope  ===>

    Usage          ===>                 How resource is referenced
    Mode           ===>                 Resource use qualifier
    Override       ===>                 Scope Attribute overrides applied to

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

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

Figure 125. 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 13 on page 67.

> **Note:** You cannot dynamically install the following types of resource definition:
> - File key segment definitions (FSEGDEF)
> - Journal defintions (JRNLDEF).
> - 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 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

> **Note:** 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 in this group are installed, remote resources are installed in both the target and related scopes.

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 transacion should be processed by the dynamic routing program. If the Usage field contains REMOTE, a Mode must be specified.

DYNAM

Transactions are processed by the dynamic routing program.

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

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

Transient data queues (TDQDEF)

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

EXTRA

Extrapartition TDQ.

IND Indirect TDQ.

INTRA

Intrapartition TDQ.

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

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

Override

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

BOTH Apply the override values to both scopes.

NONE

Do not apply any override values.

RELATED

Apply the override values to the Related Scope only.

TARGET

Apply the override values to the Target Scope only.

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

NO No checking is performed.

FULL   Perform both INACTIVE and RELEASE checking.

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

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

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

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

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

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

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed resource in the CICS system. If so, CICSPlex SM 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 126 on page 279 shows the format of the second panel for installing a resource group.

```
  COMMAND  ===>

     Group Name      EYUBAG01       Resource Group

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

  Override string expression:  (Type MODIFY to list modifiable columns)
  ===> DSNAME='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.
```

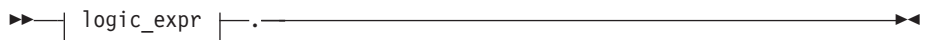*Figure 126. Installing a resource group - Page 2*

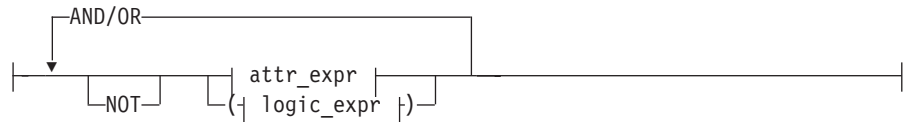Provide the following information, as appropriate:

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:**
>
>
>
> **attr_expr:**
>
>
>
> where:
>
> *attr*
>> Is the name of an attribute in the resource table for the specified resource. You can name the same attribute more than once in a filter expression.

oper

Is one of the following comparison operators:

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

value

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

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

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

  ```
  TRANID=PAY*
  ```

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

  ```
  TRANID=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

where:

attr

Is the name of a modifiable attribute for the resource.

value

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

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

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

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

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

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

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

Note: For information on what happens if your installation request does not complete successfully, see "How installation errors are handled" on page 40.

Adding a resource group to a resource description

Figure 127 on page 282 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 127. 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 "Checking a set of resources" on page 25.

RESINDSC (Resource groups in description)

Access

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 128 on page 283, includes information about all resource descriptions within the current context and the resource groups associated with them.

Select: RESINDSC from the ADMBAS menu.

```
 26MAR1999  19:34:15 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                               SCROLL ===> PAGE
 CURR WIN ===> 1       ALT WIN ===>
 =W1 =RESINDSC==========EYUPLX01=EYUPLX01=26MAR1999==19:34:15=CPSM==========4===
 CMD Name      ResGroup Description
 --- --------  -------- ----------------------------
     EYUBAD03  EYUBAG02
     EYUBAD03  EYUBAG04
```

Figure 128. The RESINDSC view

Action commands

Table 46 summarizes the action commands you can use with the RESINDSC view.

Table 46. RESINDSC view action commands

Primary command	Line command	Description
n/a	BRO	Browse the association between a resource description and a resource group.
		The format of the resulting panel is similar to that shown in Figure 129 on page 284. All of the fields are nonmodifiable.
n/a	MAP	Display a visual map of business application services definitions using the specified description as a starting point.
REMove *resdesc resgroup*	REM	Remove the association between a resource description and a resource group.
n/a	UPD	Update the association between a resource description and a resource group, as described in "Updating a resource description-to-group association".

Hyperlink fields

Table 47 shows the hyperlink fields on the RESINDSC view.

Table 47. RESINDSC view hyperlink fields

Hyperlink field	View displayed	Description
Name	RESDESC	Displays information about the selected resource description.
ResGroup	RESGROUP	Displays information about the selected resource group.

Updating a resource description-to-group association

Figure 129 on page 284 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 129. 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.

Press Enter to update the resource description-to-group association in the data repository.

RESINGRP (Resource definitions in resource group)

Access

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 130 on page 285, includes information about all resource groups within the current context and the resource definitions associated with them.

Select: RESINGRP from the ADMBAS menu.

```
26MAR1999  19:34:15 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =RESINGRP==========EYUPLX01=EYUPLX01=26MAR1999==19:34:15=CPSM==========4===
CMD Resource  Resource  Ver  Restype
--- Group---  Name----  ---  --------
    EYUBAG04  EYUFIL08   1   FILEDEF
    EYUBAG04  EYUFIL09   1   FILEDEF
    EYUBAG04  EYULSR01   1   LSRDEF
    EYUBAG04  EYUPRF03   1   PROFDEF
    EYUBAG04  EYUTSM02   1   TSMDEF
```

Figure 130. The RESINGRP view

Action commands

Table 48 summarizes the action commands you can use with the RESINGRP view.

Table 48. RESINGRP view action commands

Primary command	Line command	Description
n/a	MAP	Display a visual map of business application services definitions using the specified group as a starting point.
REMove *resgroup resdef*	REM	Remove the association between a resource group and a resource definition.

Hyperlink fields

There are no hyperlink fields in the RESINGRP view.

SYSLINK (System links)

Access

To display information about the links that exist between CICS systems in the CICSplex:

Issue the command:

    SYSLINK [primary [secondary]]

where:

primary
    Is the specific or generic name of a CICS system or * (asterisk) for all CICS systems.

secondary
    Is the specific or generic name of a CICS system to which the specified `primary` CICS system is linked.

If no parameters are specified, the view includes information about all system links defined in the current context, as illustrated in Figure 131 on page 286.

Select: SYSLINK from the ADMBAS menu.

```
   26MAR1999 11:30:30 --------- INFORMATION DISPLAY ----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
 W1 =SYSLINK==========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======4==
 CMD Primary   Secondary  ConnDef  Ver  SessDef  Ver
 --- --------  ---------  -------- ---  -------- ---
     EYUMAS1A  EYUMAS2A   C002       1  S0002      1
     EYUMAS1A  EYUMAS3A   C002       1  S0002      1
     EYUMAS1B  EYUMAS2A   C002       1  S0002      1
     EYUMAS4A  EYUMAS1B   C002       1  S0002      1
```

Figure 131. The SYSLINK view

APAR PQ37303

Documentation for APAR PQ37303 added 17/08/2000.

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 131 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.

Action commands

Table 49 summarizes the action commands you can use with the SYSLINK view.

Table 49. SYSLINK view action commands

Primary command	Line command	Description
n/a	BRO	Browse a CICS system link definition.
		The format of the resulting panel is similar to that shown in Figure 132. All of the fields are nonmodifiable.
CREate	CRE	Create a CICS system link definition and add it to the data repository, as described in "Creating a CICS system link".
n/a	INS	For systems running either CICS/ESA 4.1 and later, or CICS Transaction Server for VSE/ESA Release 1 and later, install a CICS system link in an active system, as described in "Installing a CICS system link" on page 288.
n/a	REM	Remove a CICS system link definition from the data repository, as described in "Removing a CICS system link" on page 289.

Hyperlink fields

There are no hyperlink fields in the SYSLINK view.

Creating a CICS system link

Figure 132 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the SYSLINK view.

```
COMMAND  ===>

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

   ConnDef Name     ==> CON1        Version ==>  1
   SessDef Name     ==> SESSDEF1    Version ==>  1



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

Figure 132. Creating a CICS system link

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.

Installing a CICS system link

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 SM 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 133 shows the format of the panel produced when you use the install (INS) line action command from the SYSLINK view.

```
 COMMAND  ===>

    Primary System      EYUMAS1A
    Secondary System    EYUMAS1B

    ConnDef Name        CON1          Version   1
    SessDef Name        SESSDEF1      Version   1

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


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

Figure 133. Installing a CICS system link

Provide the following information, as appropriate:

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

NO No checking is performed.

FULL Perform both INACTIVE and RELEASE checking.

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

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

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

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

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

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

NO   Do not force the installation of resources.

YES   Force the installation of resources.

Normally, CICSPlex SM checks to see if it was responsible for placing the currently installed system link in the CICS system. If so, CICSPlex SM 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.

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

Removing a CICS system link

Figure 134 shows the format of the panel produced when you use the remove (REM) line action command from the SYSLINK view.

```
 COMMAND  ===>


    Primary System         EYUMAS1A
    Secondary System       EYUMAS1B

    ConnDef Name           CON1        Version   1
    SessDef Name           SESSDEF1    Version   1




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

Figure 134. Removing a CICS system link

From this panel you can verify which CICS system link is being removed.

?   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.

SYSRES (CICS system resources)

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.

Access

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 135 is an example of the SYSRES view.
You can scroll to the right to see additional information, as shown in Figure 136.

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
 >W1 =SYSRES===========EYUPLX01=EYUPLX01=26MAR1999==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 135. The SYSRES view (left side)

```
  26MAR1999 11:30:30 --------- INFORMATION DISPLAY -----------------------
 COMMAND  ===>                                          SCROLL ===> PAGE
 CURR WIN ===> 1       ALT WIN ===>
 <W1 =SYSRES===========EYUPLX01=EYUPLX01=26MAR1999==11:30:30=CPSM======3==
 CMD System   Referenc Ref Type    Alias
 --- -------- Resource Ver -------- --------
     EYUMAS1A
     EYUMAS1A
     EYUMAS1A


```

Figure 136. The SYSRES view (right side)

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 250.

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.

2. Journal definitions (JRNLDEF), 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.

Action commands

There are no actions for the SYSRES view.

Hyperlink fields

Table 50 shows the hyperlink fields on the SYSRES view.

Table 50. SYSRES view hyperlink fields

Hyperlink field	View displayed	Description
Resource	xxxxDEF	Displays information about the specified resource definition. The view that is displayed depends on the resource type (for example, the FILEDEF view for a file definition).
Group	RESINGRP	Displays the resources associated with the specified resource group.
Referenc Resource	xxxxDEF	Displays information about a referenced resource definition. The view that is displayed depends on the resource type (for example, the SESSDEF view for a session definition).

Part 3. Appendixes

Appendix. 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 extract routine, called EYU9BCSD, is supplied in the CICSTS13.CPSM.SEYUAUTH library. You must run EYU9BCSD on an MVS/ESA system. You can use the program to extract records from CSD files on the following versions of CICS:

- 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 VSE/ESA™ 2.3
- CICS Transaction Server for VSE/ESA Release 1
- 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, DB2CONN, DB2ENTRY, DB2TRAN, DOCTEMPLATE, ENQMODEL, FILE, JOURNAL, JOURNALMODEL, LSRPOOL, MAPSET, PARTITIONSET, PARTNER, PROCESSTYPE, PROFILE, PROGRAM, REQUESTMODEL, SESSIONS, TCPIPSERVICE, TDQUEUE, TERMINAL, TRANCLASS, TRANSACTION, TSMODEL, TYPETERM

You can specify multiple *objtype* statements in a single input file, but each one must represent a different resource type. Only one *objtype* statement of a given resource type is allowed per input file.

resname

Is the specific or generic name of a CSD resource of the specified type.

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

INQUOTES(NO|YES)

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

NO The values of parameters are not enclosed in quotes on the output data set. This setting is perfectly adequate for input to the batched repository-update facility, but you might encounter problems if the parameter values contain unbalanced parentheses.

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

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

Note that, if you specify INQUOTES(YES), the EYU9BCSD output can be used only with the CICSPlex SM batched repository-update facility at CICS Transaction Server for OS/390 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 137 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 137. Sample JCL to run EYU9BCSD for a CSD group list (Part 1 of 3)

```
//*------------------------------------------------------------
//*
//* Extract the CSD Resource Definitions
//*
//*------------------------------------------------------------
//CSDXTRCT EXEC PGM=DFHCSDUP,
//            COND=(0,NE),
//            PARM='CSD(READONLY)'
//STEPLIB   DD DISP=SHR,DSN=cics.index.SDFHLOAD
//          DD DISP=SHR,DSN=cpsm.index.SEYUAUTH
//DFHCSD    DD DISP=SHR,DSN=cics.dfhcsd
//EYUOUT    DD DISP=(,CATLG,DELETE),
//            DSN=cpsm.index.EYUOUT.group_name,
//            SPACE=(TRK,(1,5)),
//            UNIT=SYSDA
//SYSPRINT  DD SYSOUT=*
//SYSIN     DD *
 EXTRACT USERPROGRAM(EYU9BCSD) OBJECTS GROUP(group_name)
/*
//EYUIN     DD *
 RESGROUP(group_name)
 RESINGRP(CSDGROUP)
 DB2CONN(*)
 DB2ENTRY(*)
 DB2TRAN(*)
 DOCTEMPLATE(*)
 CONNECTION(*)
 ENQMODEL(*)
 FILE(*)
 JOURNAL(*)
 JOURNALMODEL(*)
 LSRPOOL(*)
 MAPSET(*)
 PARTITIONSET(*)
 PARTNER(*)
 PROFILE(*)
 PROCESSTYPE(*)
 PROGRAM(*)
 REQUESTMODEL(*)
 SESSIONS(*)
 TCPIPSERVICE(*)
 TDQUEUE(*)
 TERMINAL(*)
 TRANCLASS(*)
 TRANSACTION(*)
 TSMODEL(*)
 TYPETERM(*)
/*
```

Figure 137. Sample JCL to run EYU9BCSD for a CSD group list (Part 2 of 3)

submitting a job to EYU9BCSD

```
//*----------------------------------------------------------
//*
//* 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 137. 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:

EYUOUT Identify *cpsm.index.EYUOUT.group_name* as a sequential data set where the batched repository-update facility commands generated by EYU9BCSD can be written.

STEPLIB
Identify:
- *cics.index.SDFHLOAD* as the CICS load library containing the DFHCSDUP module.
- *cpsm.index.SEYUAUTH* as the CICSPlex SM load library containing EYU9BCSD.

DFHCSD Identify *cics.dfhcsd* as the VSAM data set that serves as the CSD file.

SYSIN Identify GROUP*group_name* as the CSD group from which definitions are to be extracted. The group name may contain wildcards.

Identify LIST*list_name* as the CSD grouplist from which definitions are to be extracted. The list name may not contain wildcards.

For more details of the DFHCSDUP utility and its parameters, see the*CICS Resource Definition Guide*.

To extract definitions from all the groups in a CSD group list:
1. Change GROUP(*group_name*) to LIST(*list_name*).
2. Identify a CSD group list.
3. Change all other occurrences of *group_name* to the appropriate *list_name*.

EYUIN If you specify LIST(*list_name*) in the SYSIN statement, change the RESGROUP value from *group_name* to CSDGROUP. Specifying CSDGROUP generates a resource group for each CSD group in the group list.

Output from EYU9BCSD

The CICSPlex SM extract routine EYU9BCSD uses the date extracted from the CSD by the DFHCSDUP EXTRACT command to generate batched repository-update facility commands like those shown in Figure 138 on page 301.

```
|                      /*
|                         RESGROUP(group_name)
|                         RESINGRP(CSDGROUP)
|                         PROCESSTYPE(*)
|                         TSMODEL(*)
|                         REQUESTMODEL(*)
|                      */
|                      CONTEXT EYUPLX01;
|                      CREATE RESGROUP      RESGROUP(group_name)
|                                           DESCRIPTION( )
|                                                    ;
|                      CREATE PROCDEF       NAME(CICSPRTY)
|                                           DESCRIPTION(Sample CBTS Processtype )
|                                           STATUS(ENABLED)
|                                           FILE(CBTSFILE)
|                                           AUDITLOG( )
|                                           AUDITLEVEL(OFF)
|                                           RESGROUP(group_name)
|
|                      CREATE TSMDEF        NAME(SAMPLE)
|                                           DESCRIPTION(Sample TS Model )
|                                           PREFIX(ABCD )
|                                           LOCATION(AUXILIARY)
|                                           RECOVERY(NO)
|                                           SECURITY(NO)
|                                           POOLNAME( )
|                                           REMOTESYSTEM( )
|                                           REMOTEPREFIX( )
|                                           RESGROUP(group_name)
|                                                    ;
|                      CREATE RQMDEF        NAME(REQMOD1)
|                                           DESCRIPTION(Sample Request Model )
|                                           OMGMODULE(*)
|                                           OMGINTERFACE(*)
|                                           OMGOPERATION(*)
|                                           TRANSID(TRNX)
|                                           RESGROUP(group_name)
|                                                    ;
|
```

Figure 138. Sample edited output from EYU9BCSD

Note: If you did not specify a RESINGRP statement in your EYU9BCSD input, the CREATE xxxxDEF command is generated without a RESGROUP operand. That means the resource definition will not be associated with any resource group.

If multiple CSD records are found for the same resource type and name, multiple CREATE commands are generated, each with a different version number.

The batched repository-update facility CREATE commands are written to the EYUOUT output file you identified in the DFHCSDUP JCL.

Editing the EYUOUT file

The CREATE commands are generated in the proper form and the proper sequence for use by the batched repository-update facility. However, before you submit the EYU9BCSD output to the batched repository-update facility, you must edit the EYUOUT file as follows:

Context

The batched repository-update facility needs to know the CICSPlex SM context for the resource definitions being processed. You must insert a

output from EYU9BCSD

CONTEXT statement at the beginning of the file to identify the CICSplex to which the updates apply. See Figure 138 on page 301.

Passwords

The CSD records extracted by DFHCSDUP do not include passwords. Any resource definitions that include passwords are generated with blanks (X'40') in the password fields, unless you add the passwords manually.

You can edit individual CREATE commands in the file to add the appropriate password fields. The passwords are then included in the resource definitions that CICSPlex SM generates in the data repository. Be aware, however, that the batched repository-update facility output will include a visible record of the passwords that you entered.

Obsolete Fields

The CSD records extracted by DFHCSDUP do not include fields that are considered obsolete, but which are retained for compatibility (such as RSL in a map set, partition set program, or transaction definition).

You can edit individual CREATE commands in the file to add the appropriate fields. The additional fields are then included in the resource definitions that CICSPlex SM generates in the data repository.

Submitting EYUOUT to the batched repository-update facility

Once you have made the necessary changes to the EYU9BCSD output file, you can submit it as input to the batched repository-update facility.

For more information on the batched repository-update facility, see the *CICSPlex SM Administration* book.

Glossary

This glossary defines CICSPlex SM terms and abbreviations used in this book with other than their everyday meaning. Terms that are defined in the *IBM Dictionary of Computing*, New York: McGraw-Hill, 1994, are not defined here unless CICSPlex SM usage is different from the meaning given there.

If you cannot find the definition you need, refer to the *Dictionary of Computing* or the *CICSPlex SM Master Index*, SC33-1812.

A

action command. A CICSPlex SM command that affects one or more of the resources represented in a view. Action commands can be issued from either the COMMAND field in the control area of the information display panel or the line command field in a displayed view. Valid action commands are listed with the description of each view. See also *overtype field*.

action definition (ACTNDEF). In real-time analysis, a definition of the type of external notification that is to be issued when the conditions identified in an analysis definition are true.

activity. See *BTS activity*.

adjacent CMAS. A CICSPlex SM address space (CMAS) that is connected to the local CMAS via a direct CMAS-to-CMAS link. Contrast with *indirect CMAS*. See also *local CMAS*.

alter expression. A character string that defines the changes to be made to a resource attribute. An alter expression is made up of one or more attribute expressions.

alternate window. A window to which the results of a hyperlink can be directed. By default, the results of a hyperlink are displayed in the same window from which the hyperlink is initiated. Contrast with *current window*.

alternate window (ALT WIN) field. In the control area of an information display panel, the field in which you can specify an alternate window to receive the results of a hyperlink.

analysis definition. In real-time analysis, a definition of the evaluations to be performed on specified CICS resources, the intervals at which those evaluations are to be performed, and the actions to be taken when a notifiable condition occurs.

analysis group. In real-time analysis, a group of one or more analysis definitions, status definitions, or both. Analysis definitions and status definitions must belong to an analysis group if they are to be installed automatically in a CICS system when that system starts.

analysis point monitoring (APM). In real-time analysis, resource monitoring across multiple CICS systems within a CICSplex that results in a single notification of a condition, rather than one notification for each system. Contrast with *MAS resource monitoring*.

analysis point specification. In real-time analysis, a specification that identifies the CMASs that are to be responsible for analysis point monitoring.

analysis specification. In real-time analysis, a specification that establishes system availability monitoring or MAS resource monitoring within a group of CICS systems.

AOR. Application-owning region.

API. Application programming interface

APM. Analysis point monitoring.

application-owning region (AOR). In a CICSplex configuration, a CICS region devoted to running applications. For dynamic routing, the terms *requesting region*, *routing region*, and *target region* are used instead of AOR to signify the role of the region in the dynamic routing request.

ARM. Automatic restart manager.

ASU. Automatic screen update.

attribute. See *resource attribute, resource table attribute*.

attribute expression. A reference to a resource table attribute and, in some cases, its value. Attribute expressions are used to build filter expressions, modification expressions, and order expressions.

attribute value. The data currently associated with a resource table attribute. For example, the file attribute OPENSTATUS might have a value of CLOSED.

automatic restart manager (ARM). A recovery function of MVS/ESA 5.2 that provides improved availability for batch jobs and started tasks by restarting them automatically if they end unexpectedly. The affected batch job or started task can be restarted on the same system or on a different one, if the system itself has failed.

automatic screen update (ASU). A CICSPlex SM facility that automatically updates the data in all unlocked windows at user-defined intervals. See also *automatic screen update interval*.

automatic screen update interval. The time interval between one automatic screen update and the next. This interval can be set in the CICSPlex SM user profile or when the ASU facility is turned on. See also *automatic screen update (ASU)*.

B

BAS. Business Application Services

batched repository-update facility. A CICSPlex SM facility, invoked from the CICSPlex SM end user interface, for the bulk application of CICSPlex SM definitions to a CMAS data repository.

BTS. CICS business transaction services

BTS activity. One part of a process managed by CICS BTS. Typically, an activity is part of a *business transaction*.

BTS process. A collection of more than one CICS BTS *activities*. Typically, a process is an instance of a *business transaction*.

BTS set. See CICS system group

business application. Any set of CICS resources that represent a meaningful entity to an enterprise or a user (such as, Payroll).

Business Application Services (BAS). The component of CICSPlex SM that provides the ability to define and manage business applications in terms of their CICS resources and associated CICS systems. BAS provides a central definition repository for CICS systems, complete with installation facilities and the ability to restrict a CICSPlex SM request to those resources defined as being part of the business application. See also *business application, scope*.

business transaction. A self-contained business function, for example, the booking of an airline ticket.

C

CAS. Coordinating address space.

CBIPO. Custom-built installation process offering.

CBPDO. Custom-built product delivery offering.

CEDA. A CICS transaction that defines resources online. Using CEDA, you can update both the CICS system definition data set (CSD) and the running CICS system.

CICS Business Transaction Services (BTS). A CICS domain that supports an application programming interface (API) and services that simplify the development of *business transactions*.

CICS system. The entire collection of hardware and software required by CICS. In CICSPlex SM topology, a definition referring to a CICS system that is to be managed by CICSPlex SM. See also *CICSplex, CICS system group*.

CICS system group. A set of CICS systems within a CICSplex that can be managed as a single entity. In CICSPlex SM topology, the user-defined name, description, and content information for a CICS system group. A CICS system group can be made up of CICS systems or other CICS system groups. In CICS business transaction services (BTS), a BTS set, that is the set of CICS regions across which BTS processes and activities may execute. See also *CICSplex, CICS system*.

CICSplex. A CICS complex. A CICSplex consists of two or more CICS regions that are linked using CICS intercommunication facilities. The links can be either intersystem communication (ISC) or interregion communication (IRC) links, but within a CICSplex are more commonly IRC. Typically, a CICSplex has at least one terminal-owning region (TOR), more than one application-owning region (AOR), and may have one or more regions that own the resources being accessed by the AORs. In CICSPlex SM, a management domain. The largest set of CICS regions, or CICS systems, to be manipulated by CICSPlex SM as a single entity. CICS systems in a CICSplex being managed by CICSPlex SM do not need to be connected to each other. See also *CICS system, CICS system group*.

CICSPlex SM. IBM CICSPlex System Manager.

CICSPlex SM address space (CMAS). A CICSPlex SM component that is responsible for managing CICSplexes. A CMAS provides the single-system image for a CICSplex by serving as the interface to other CICSplexes and external programs. There must be at least one CMAS in each MVS image on which you are running CICSPlex SM. A single CMAS can manage CICS systems within one or more CICSplexes. See also *coordinating address space (CAS), managed application system (MAS)*.

CICSPlex SM token. Unique, 4-byte values that CICSPlex SM assigns to various elements in the API environment. Token values are used by CICSPlex SM to correlate the results of certain API operations with subsequent requests.

client program. In dynamic routing, the application program, running in the *requesting region*, that issues a remote link request.

CMAS. CICSPlex SM address space.

CMAS link. A communications link between one CICSPlex SM address space (CMAS) and another CMAS or a remote managed application system (remote MAS). CMAS links are defined when CICSPlex SM is configured.

CODB. A CICSPlex SM transaction for interactive, system-level debugging of CMASs and of CICS/ESA, CICS/MVS, and CICS/VSE MASs. CODB must be used only at the request of customer support personnel.

COD0. A CICSPlex SM transaction for interactive, method-level debugging of CMASs and of CICS/ESA, CICS/MVS, CICS/VSE, and CICS for OS/2 MASs. COD0 must be used only at the request of customer support personnel.

COLU. A CICSPlex SM transaction for generating reports about CMAS and local MAS components. COLU must be used only at the request of customer support personnel.

COMMAND field. In the control area of an information display panel, the field that accepts CICSPlex SM, ISPF, and TSO commands. Contrast with *option field*.

command-level interface. A CICSPlex SM API interface that uses the CICS translator to translate EXEC CPSM statements into an appropriate sequence of instructions in the source language.

Common Services. A component of CICSPlex SM that provides commonly requested services (such as GETMAIN, FREEMAIN, POST, and WAIT processing) to other CICSPlex SM components.

communication area (COMMAREA). A CICS area that is used to pass data between tasks that communicate with a given terminal. The area can also be used to pass data between programs within a task.

Communications. A component of CICSPlex SM that provides all services for implementing CMAS-to-CMAS and CMAS-to-MAS communication.

context. A named part of the CICSPlex SM environment that is currently being acted upon by CICSPlex SM. For configuration tasks, the context is a CICSPlex SM address space (CMAS); for all other tasks, it is a CICSplex. See also *scope*.

control area. The top three lines of an information display panel, containing the panel title, the screen update time, the short message area, the COMMAND and SCROLL fields, and the current window (CUR WIN) and alternate window (ALT WIN) fields.

coordinating address space (CAS). An MVS subsystem that provides ISPF end-user access to the CICSplex to be accessed. See also *CICSPlex SM address space, managed application system (MAS)*.

coordinating address space subsystem ID. Identifies the coordinating address space (CAS) which can be up to 4 characters, to be connected to when issuing CICSPlex SM requests. The name of the CAS is installation-dependent, and is defined in the CICSPlex SM user profile.

cross-system coupling facility (XCF). XCF is a component of MVS that provides functions to support cooperation between authorized programs running within a sysplex.

current window. The window to which the results of all commands issued in the COMMAND field are directed, unless otherwise requested. Contrast with *alternate window*.

current window (CUR WIN) field. In the control area of an information display panel, the field that contains the window number of the current window. You can change the number in this field to establish a new current window.

custom-built installation process offering (CBIPO). A product that simplifies the ordering, installation, and service of MVS system control programs and licensed programs by providing them with current updates and corrections to the software that is already integrated.

custom-built product delivery offering (CBPDO). A customized package of both products and service, or of service only, for MVS system control programs and licensed programs.

D

Data Cache Manager. A component of CICSPlex SM that manages logical cache storage for use by other CICSPlex SM components.

data repository. In CICSPlex SM, the VSAM data set that stores administrative data, such as topology and monitor definitions, for a CICSPlex SM address space (CMAS).

Data Repository. A component of CICSPlex SM that provides methods for creating, accessing, updating, and deleting data in the CICSPlex SM data repository. See also *Managed Object Services*.

Database Control (DBCTL). An IMS/ESA facility providing an interface between CICS/ESA and IMS/ESA that allows access to IMS DL/I full-function databases and to data-entry databases (DEDBs) from one or more CICS/ESA systems.

Database 2 (DB2). An IBM licensed program. DB2 is a full-function relational database management system that presents a data structure as a table consisting of a number of rows (or records) and a number of columns.

DBCTL. Database Control.

DB2. Database 2.

derived field. On a monitor view, a field whose value does not come directly from CICS or CICSPlex SM data, but is calculated based on the values in other fields. See also *derived value*.

derived value. A rate, average, or percentage that results from CICSPlex SM processing of CICS statistics.

display area. On an information display panel, the area where windows can be opened to display data. The display area appears below the control area. The bottom two lines of the display area can be used to display the PF key assignments in effect for a CICSPlex SM session.

display attributes. A CICSPlex SM user profile option that controls the appearance of the window information line, field headings, and threshold values in a view.

display command. A CICSPlex SM command that extends the ISPF interface to create and control a multiwindow environment.

distributed program link (DPL). Function of CICS intersystem communication that enables CICS to ship LINK requests between CICS regions.

distributed routing program (DSRTPGM). A CICS-supplied user-replaceable program that can be used to dynamically route:
- CICS BTS processes and activities
- Transactions started by non-terminal related EXEC CICS START commands

DPL. Distributed program link.

DTR. Dynamic transaction routing.

dynamic routing. The automatic routing of a transaction or program, at the time it is initiated, from a requesting region to a suitable target region. Routing terminal data to an alternative transaction at the time the transaction is invoked. To do this, CICS allows the dynamic routing program to intercept the terminal data and redirect it to any system and transaction it chooses. See also dynamic routing program (EYU9XLOP)

dynamic routing program (EYU9XLOP). A user-replaceable CICS program that selects dynamically both the system to which a routing request is to be sent and the transaction's remote name. The alternative to using this program is to make these selections when a remote transaction is defined to CICS (static routing). See also *static routing*

dynamic transaction routing (DTR). The automatic routing of a transaction, at the time it is initiated, from a transaction-owning region (TOR) to a suitable application-owning region (AOR).

E

Environment Services System Services (ESSS). A component of CICSPlex SM that implements the formal MVS/ESA subsystem functions required by the product. ESSS provides cross-memory services, data space management, connection services, and lock management. An ESSS system address space is created at CICSPlex SM initialization and remains in the MVS image for the life of the IPL.

ESSS. Environment Services System Services.

evaluation definition. In real-time analysis, a definition of the resources that are to be sampled. When the result of an evaluation is true, an associated analysis definition is used to determine whether a notifiable condition has occurred.

event. A significant occurrence within the CICSplex or system for which the user has requested notification. For example, the end of processing, a subsystem failure, or any unusual condition in the system could be defined by a user as an event.

event notification. A CICSPlex SM notification of a significant occurrence within a CICSplex or CICS system.

extended diagnostic mode (XDM). A CICSPlex SM online internal diagnostic facility. XDM provides no information about resources managed by CICSPlex SM, and should be turned on only at the request of IBM customer support personnel. XDM can be turned on and off in the CICSPlex SM user profile.

external notification. In RTA, an event notification, generic alert, or operator message issued when a notifiable condition occurs.

F

file-owning region. In a CICSplex configuration, a CICS system devoted to managing CICS file access.

filter expression. A character string that consists of logical expressions to be used in filtering resource table records. A filter expression is made up of one or more attribute expressions.

FOR. File-owning region.

form. The way in which data obtained from a query is presented in a view. See also *query, view*.

G

generic alert. A Systems Network Architecture (SNA) Network Management Vector that enables a product to signal a problem to the network. CICSPlex SM uses generic alerts as part of its interface to NetView.

GMFHS. Graphic Monitor Facility host subsystem.

goal algorithm. In CICSPlex SM's workload balancing, an algorithm used to select an AOR to process a dynamic transaction. Using the goal algorithm, CICSPlex SM selects the AOR that is the least affected by conditions such as short-on-storage, SYSDUMP, and TRANDUMP; is the least likely to cause the transaction to abend; and is most likely to enable the transaction to meet response-time goals set for it using the Workload Manager component of MVS/ESA SP 5.1. Contrast with *queue algorithm*.

Graphic Monitor Facility host subsystem. A NetView feature that manages configuration and status updates for non-SNA resources.

H

hyperlink. A direct connection between the data in one CICSPlex SM view and a view containing related information. For example, from a view that lists multiple CICS resources, there may be a hyperlink to a detailed view for one of the resources. To use a hyperlink, place the cursor in the data portion of a hyperlink field and press Enter.

hyperlink field. On a CICSPlex SM view, a field for which a hyperlink is defined. The headings of hyperlink fields are shown in high intensity or color, depending on the terminal type.

I

IBM CICSPlex System Manager for MVS/ESA (CICSPlex SM). An IBM CICS system-management product that provides a single-system image and a single point of control for one or more CICSplexes that can be installed on heterogeneous operating systems.

indirect CMAS. A CICSPlex SM address space (CMAS) that the local CMAS can communicate with via an adjacent CMAS. There is no direct CMAS-to-CMAS link between the local CMAS and an indirect CMAS. Contrast with *adjacent CMAS*. See also *local CMAS*.

information display panel. The panel that supports the CICSPlex SM window environment. It consists of a control area and a display area. CICSPlex SM views are displayed in windows within the display area of this panel.

information display parameters. A CICSPlex SM user profile option that defines the initial screen configuration, how frequently the screen will be updated by ASU, and how long a window will wait for command processing to complete before timing out.

installation verification procedure (IVP). A procedure distributed with a system that tests the newly generated system to verify that the basic facilities of the system are functioning correctly.

interregion communication. Synonym for *multiregion operation*.

intersystem communication (ISC). Communication between separate systems by means of SNA networking facilities or by means of the application-to-application facilities of an SNA access method.

intertransaction affinity. A relationship between CICS transactions, usually the result of the ways in which information is passed between those transactions, that requires them to execute in the same CICS region. Intertransaction affinity imposes restrictions on the dynamic routing of transactions.

IRC. Interregion communication.

ISC. Intersystem communication.

IVP. Installation verification procedure.

K

Kernel Linkage. A component of CICSPlex SM that is responsible for building data structures and managing the interfaces between the other CICSPlex SM components. The environment built by Kernel Linkage is known as the method call environment.

L

line command field. In a CICSPlex SM view, the 3 character field, to the left of the data, that accepts action commands.

local CMAS. The CICSPlex SM address space (CMAS) that a user identifies as the current context when performing CMAS configuration tasks.

local MAS. A managed application system (MAS) that resides in the same MVS image as the CICSPlex SM address space (CMAS) that controls it and that uses the Environment Services System Services (ESSS) to communicate with the CMAS.

logical scope. A set of logically related CICS resources that are identified in a CICSPlex SM resource description. A logical scope can be used to qualify the context of a CICSPlex SM request.

M

maintenance point. A CICSPlex SM address space (CMAS) that is responsible for maintaining CICSPlex SM definitions in its data repository and distributing them to other CMASs involved in the management of a CICSplex. See also *data repository*.

Major object descriptor block (MODB). In CICSPlex SM, a control structure built by Kernel Linkage during initialization of a CICSPlex SM component that contains a directory of all methods that make up that component. The structure of the MODB is the same for all components.

Major object environment block (MOEB). In CICSPlex SM, a control structure built by Kernel Linkage during initialization of a CICSPlex SM component and pointed to by the MODB. The MOEB stores information critical to a CICSPlex SM component and anchors data used by the component. The structure of the MOEB is unique to the component it supports.

MAL. Message argument list.

managed application system (MAS). A CICS system that is being managed by CICSPlex SM. See *local MAS, remote MAS*.

managed object. A CICSPlex SM-managed CICS resource or a CICSPlex SM definition represented by a resource table. A view is based on a single managed object.

Managed Object Services. A subcomponent of the Data Repository component of CICSPlex SM that translates a request for data (from real-time analysis, for example) into the method calls required to obtain the data.

MAS. Managed application system.

MAS agent. A CICSPlex SM component that acts within a CICS system to provide monitoring and data collection for the CICSPlex SM address space (CMAS). The level of service provided by a MAS agent depends on the level of CICS the system is running under and whether it is a local or remote MAS. See also *CICSPlex SM address space (CMAS), local MAS, remote MAS*.

MAS resource monitoring (MRM). In real-time analysis, resource monitoring at the CICS system level; it results in one notification of a condition for each system in which it occurs. If the same condition occurs in three CICS systems where MAS resource monitoring is active, three notifications are issued. Contrast with *analysis point monitoring*.

Message argument list (MAL). In CICSPlex SM, a data structure passed between methods using Kernel Linkage method call services.

message line. On an information display panel, the line in the control area where a long message appears when the HELP command is issued in response to a short message. The message line temporarily overlays the CURR WIN and ALT WIN fields.

Message Services. A component of CICSPlex SM that provides services for building and issuing MVS/ESA console messages to other CICSPlex SM components.

meta-data. Internal data that describes the structure and characteristics of CICSPlex SM managed objects.

method. (Action.) An application programming interface (API) instruction that resolves into an EXEC CICS command, issued against one or more resources in one or more CICS systems, within the current context and scope.

method. In CICSPlex SM, one of the programs that make up a CICSPlex SM component. See also *message argument list (MAL)*.

mirror transaction. CICS transaction that recreates a request that is function shipped from one system to another, issues the request on the second system, and passes the acquired data back to the first system.

MODB. Major object descriptor block.

modification expression. A character string that defines the changes to be made to a resource attribute. A modification expression is made up of one or more attribute expressions.

MOEB. Major object environment block.

monitor definition. A user-defined statement of the specific resource occurrences (such as the program named PAYROLL) to be monitored by CICSPlex SM. A monitor definition can either be linked to a monitor specification as part of a monitor group or be installed directly into an active CICS system. See also *monitor group, monitor specification*.

monitor group. A user-defined set of CICSPlex SM monitor definitions that can either be linked to a monitor specification for automatic installation or be installed directly into an active CICS system. See also *monitor definition, monitor specification*.

monitor interval. The number of minutes that are to elapse before the statistics counters containing accumulated resource monitoring data are automatically reset. This value is part of a CICSplex definition and affects all of the CICS systems and CICS system groups associated with that CICSplex. See also *period definition, sample interval*.

monitor specification. A user-defined statement of the types of resources (such as programs) to be monitored by CICSPlex SM and how often data should be collected. A monitor specification is associated with a CICS system and is automatically installed each time the CICS system starts up. See also *monitor definition, monitor group*.

Monitoring Services. A component of CICSPlex SM that is responsible for monitoring resources within a

CICS system and making the collected data available to other CICSPlex SM components.

MRM. MAS resource monitoring.

MRO. Multiregion operation.

MSM. MultiSystem Manager.

multiregion operation (MRO). Communication between CICS systems without the use of SNA network facilities. Synonymous with *interregion communication*.

MultiSystem Manager. An object-oriented, graphical systems management application that runs under NetView for MVS.

MVS image. A single instance of the MVS operating system.

MVS system. An MVS image together with its associated hardware.

N

NetView. An IBM network management product that can provide rapid notification of events and automated operations. CICSPlex SM can be set up to send generic alerts to NetView as part of its event processing capabilities.

NetView Graphic Monitor Facility (NGMF). A function of the NetView program that provides the network operator with a graphic topological presentation of a network controlled by the NetView program and that allows the operator to manage the network interactively.

NetView program. An IBM licensed program used to monitor and manage a network and to diagnose network problems.

NGMF. NetView Graphic Monitor Facility.

notification. A message that is generated asynchronously by a CICSPlex SM managed object to describe an event related to the object.

O

option field. On a CICSPlex SM menu, the field in which you can specify an option number or letter. Contrast with *command field*.

order expression. A character string that defines either the attributes to be used in sorting resource table records, or the attributes to be included in a resource table view. An order expression is made up of one or more attribute expressions.

override expression. A character string that defines the changes to be made to a resource attribute. An override expression is made up of one or more attribute expressions.

overtype field. On a CICSPlex SM view, a field containing a value that can be changed by typing a new value directly into the field. Values that can be overtyped are shown in high intensity or color, depending on the terminal type. Acceptable values for overtype fields are listed with the description of each view. See also *action command*.

P

parameter expression. A character string that defines the parameters required for an action to complete or a definition to be processed.

parameter repository. In CICSPlex SM, a data set that stores cross-system communication definitions that allow one coordinating address space (CAS) to communicate with other CASs.

period definition. A user-defined range of hours and minutes and the time zone to which that range applies. A period definition is used to indicate when an action, such as resource monitoring, is to occur. See also *monitor interval, sample interval*.

PlexManager. A service utility that can be used to manage the communication connections between multiple coordinating address spaces (CASs) and between a CAS and its associated CICSPlex SM address spaces (CMASs) and CICSplexes.

process. See *BTS process*

processing thread. A connection between an application program and the CICSPlex SM API. A program can establish multiple processing threads, but each one is considered a unique API user; no resources can be shared across the boundary of a thread.

pseudoconversation. A CICS application designed to appear to the user as a continuous conversation, but that consists internally of multiple separate tasks.

Q

query. A request for specific data that is generated by a view command. See also *form, view*.

queue algorithm. In CICSPlex SM's workload balancing, an algorithm used to select an AOR to process a dynamic transaction. Using the queue algorithm, CICSPlex SM selects the AOR that has the shortest queue of transactions (normalized to MAXTASKs) waiting to be processed; is the least affected by conditions such as short-on-storage,

SYSDUMP, and TRANDUMP; and is the least likely to cause the transaction to abend. Contrast with *goal algorithm*.

Queue Manager. A component of CICSPlex SM that creates and manages queues of data in a cache that is shared by a CMAS and its local MASs.

R

RACF. Resource Access Control Facility.

real-time analysis (RTA). A component of CICSPlex SM that is responsible for monitoring the status of a CICS system or resource against its desired status, and issuing one or more external notifications when deviations occur.

record pointer. An internal indicator of the next resource table record to be processed in a result set.

related scope. A CICS system where resources defined to CICSPlex SM as remote should be assigned and, optionally, installed as local resources. See also *target scope*.

remote MAS. A managed application system (MAS) that uses MRO or LU 6.2 to communicate with the CICSPlex SM address space (CMAS) that controls it. A remote MAS may or may not reside in the same MVS image as the CMAS that controls it.

requesting region. The region in which a dynamic routing request originates. For dynamic transaction routing and inbound client dynamic program link requests, this is typically a TOR; for dynamic START requests and peer-to-peer dynamic program link requests, this is typically an AOR.

resource. Any physical or logical item in a CICS system, such as a transient data queue, a buffer pool, a file, a program, or a transaction.

Resource Access Control Facility (RACF). An IBM licensed program that provides for access control by identifying and verifying the users to the system, authorizing access to protected resources, logging any detected unauthorized attempts to enter the system, and logging the detected accesses to protected resources.

resource assignment. A user-defined statement that selects resource definitions to be assigned to CICS systems and, optionally, specifies resource attributes to override those definitions. A resource assignment applies to a single resource type and must be associated with a resource description. See also *resource definition, resource description*.

resource attribute. A characteristic of a CICS resource, such as the size of a buffer pool.

resource definition. In CICSPlex SM, a user-defined statement of the physical and operational characteristics of a CICS resource. Resource definitions can be associated with resource descriptions as part of a resource group. See also *resource description, resource group*.

resource description. A user-defined set of CICSPlex SM resource definitions that can be automatically installed in CICS systems and named as a logical scope for CICSPlex SM requests. Resource descriptions represent the largest set of CICS resources that can be managed by CICSPlex SM as a single entity. A resource description can be associated with one or more resource assignments. See also *logical scope, resource assignment, resource definition*.

resource group. A user-defined set of CICSPlex SM resource definitions. A resource group can be associated with resource descriptions either directly or by means of resource assignments. See also *resource assignment, resource definition, resource description*.

Resource Object Data Manager (RODM). A component of the NetView program that operates as a cache manager and that supports automation applications. RODM provides an in-memory cache for maintaining real-time data in an address space that is accessible by multiple applications.

resource table. The external representation of a CICSPlex SM managed object. A resource table defines all the attributes, or characteristics, of a managed object.

resource table attribute. A characteristic of a CICSPlex SM managed object, as represented by a field in a resource table.

resource type. A group of related resources, such as files.

result set. A logical group of resource table records that can be accessed, reviewed, and manipulated by an API program.

retention period. For a monitored CICS system, the period of time for which monitor data is retained after the system becomes inactive. If a system is being monitored, becomes inactive, and remains inactive beyond the specified retention period, the monitor data is discarded. If the system becomes active before the retention period expires, the monitor data gathered before the system became inactive is retained, and monitoring continues.

RODM. Resource Object Data Manager.

routing region. The region in which the decision is made as to which is the most suitable target region for a dynamic routing request. For dynamic transaction routing, dynamic terminal-related START requests, and inbound client dynamic program link requests, this is

typically a TOR; for non-terminal-related START requests, dynamic peer-to-peer program link requests, and CICS BTS activities, this is typically an AOR.

RTA.   real-time analysis.

run-time Interface.   A CICSPlex SM API interface that accepts commands in the form of text strings and generates the appropriate API calls. The run-time interface supports programs written as REXX EXECs.

S

SAM.   System availability monitoring.

sample interval.   The duration, in seconds, between occurrences of data collection for a specific resource type. See also *monitor interval, period definition, resource type*.

scope.   A named part of the CICSPlex SM environment that qualifies the context of a CICSPlex SM request. The scope can be the CICSplex itself, a CICS system, a CICS system group, or any set of CICS resources that are defined as a logical scope in a CICSPlex SM resource description. For configuration tasks, where the context is a CICSPlex SM address space (CMAS), the scope is ignored. When you are applying security, scope must be a single CICS system or CICSplex. It cannot be a CICS system group or any combination of individual CICSplexes or CICS systems. See also *context, logical scope*.

screen configuration.   A user-defined, named layout of windows and the context, scope, view, and sort order associated with each. The initial configuration to be displayed when CICSPlex SM is accessed can be identified on the user profile.

screen repository.   In CICSPlex SM, a data set that stores screen configuration definitions created by the SAVESCR display command. See also *screen configuration*.

selection list.   In CICSPlex SM, a data set that stores cross-system communication definitions that allow one coordinating address space (CAS) to communicate with other CASs.

selection list.   A list of named items, such as views or screen configurations, from which one can be selected.

server program.   In dynamic routing, the application program specified on the link request, and which is executed in the *target region*.

service point.   One of the combinations of products and contexts that is known to the coordinating address space (CAS) to which you are connected. See also *context*.

session control parameters.   A CICSPlex SM user profile option that sets the coordinating address space

(CAS) subsystem ID used for accessing CICSPlex SM views and controls the extended diagnostic mode (XDM).

short message area.   In the control area of an information display panel, that part of the title line that displays short messages.

single point of control.   The ability to access and manage all CICS systems and their resources in a CICSplex from a single terminal or user session.

single system image.   The collection and presentation of data about multiple CICS systems as though they were a single CICS system. In CICSPlex SM, the single-system image is provided by the CICSPlex SM address space (CMAS).

specification.   See *analysis specification, monitor specification, workload specification*.

Starter Set.   A part of CICSPlex SM comprising sample CICSPlex SM definitions and sample JCL. The Starter Set samples may be used as supplied for educational purposes. They may also be copied and adapted for the customer environment.

static routing.   Non-dynamic routing. The routing request is routed to a predetermined system. Static transaction routing occurs when NO is specified is the Dynamic field in either the transaction definition or the progam definition. In both cases, the request is routed to the system named in the Remote Sysid field.

status definition.   In real-time analysis, a definition of a user-written program to be invoked at specified intervals to evaluate the status of a non-CICS resource.

summarized result set.   A special type of result set that is produced by grouping, or summarizing, the resource table records in a result set. See also *result set*.

summary expression.   A character string that consists of one or more summary options and the resource table attributes to which they apply. See also *summary option*.

summary option.   A value that indicates how the attribute values in a resource table are to be summarized.

sysplex.   A set of MVS systems communicating and cooperating with each other through specific multisystem hardware components and software services to process customer workloads.

system availability monitoring (SAM).   In real-time analysis, the monitoring of CICS systems to determine whether: they are active during their defined hours of operation; they are experiencing a short-on-storage, SYSDUMP, TRANDUMP, MAXTASK, or STALL condition. If a CICS system becomes inactive or one of the specified conditions occurs, an external notification is issued.

system image. The representation of a program and its related data as it exists in main storage.

T

target region. The region selected from a set of target regions as the most suitable region in which to execute the work request. For all dynamic routing requests, this is typically an AOR.

target scope. A CICS system or CICS system group where resources defined to CICSPlex SM should be assigned and, optionally, installed. See also *related scope*.

temporary maintenance point. A CICSPlex SM address space (CMAS) that serves as the maintenance point when the identified maintenance point is unavailable. See also *maintenance point*.

terminal-owning region. In a CICSplex configuration, a CICS region devoted to managing the terminal network. For dynamic routing, the terms *requesting region* and *routing region* are used instead of TOR to signify the role of the region in the dynamic routing request.

thread. See *processing thread*.

time-period definition. A user-defined range of hours and minutes, and the time zone to which that range applies. A time-period definition is used to indicate when an action, such as resource monitoring, is to occur.

token. See *CICSPlex SM token, user token*.

topology. An inventory of CICS and CICSPlex SM resources, and a map of their relationships. CICSPlex SM supports the definition of resource and system topology.

topology definition. A named subset of CICS and CICSPlex SM resources. Topology definitions are user-created and can include CICSplexes, CICS systems, and CICS system groups.

Topology Services. A component of CICSPlex SM that is responsible for maintaining topology information about CICSplexes and resources, and making it available to other CICSPlex SM components.

TOR. Terminal-owning region.

Trace Services. A component of CICSPlex SM that provides other CICSPlex SM components with the ability to write trace records to the CICS trace table and trace data sets. Trace Services also writes trace records created by a MAS to the trace table and data set of the managing CMAS.

transaction group. A user-defined, named set of transactions that determines the scope of workload balancing and the affinity relationships between transactions.

U

user token. Unique, 1- to 4-byte values that an API user can assign to asynchronous requests. User token values are not used by CICSPlex SM; they are simply held until the request is complete and then returned to the user.

V

view. In the CICSPlex SM API, a temporary, customized form of a resource table. A view can consist of some or all of the resource table attributes in any order. In the CICSPlex SM ISPF end-user interface, a formatted display of selected data about CICS resources or CICSPlex SM definitions. The data in a view is obtained from a query and can be presented in one or more forms. The data can be limited to a subset of CICSplex resources or definitions by establishing a context and scope.

view command. A CICSPlex SM command that displays a view in a window of the display area. The name of the view displayed matches the name of the view command. See also *view*.

W

window. In CICSPlex SM, a subdivision of the display area. The results of any CICSPlex SM view or display command are directed to a single window, which is the current window by default. Contrast with *view*. See also *current window*, *alternate window*.

window identifier. On a window information line, the field that identifies the window. A window identifier consists of a one-character status code and a number in the range 1 through 20.

window information line. The top line of each window in the display area. It includes the window identifier, the name of the view displayed in the window, the context and scope in effect, the date and time when the view was last refreshed, and the product name.

window number. A number assigned by CICSPlex SM to a window when it is opened. The window number is the second part of the window identifier on the window information line.

window status code. A one-character code that indicates whether a window is ready to receive commands, is busy processing commands, is not to be updated, or contains no data. It also indicates when an

error has occurred in a window. The window status code is the first character of the window identifier on the window information line.

WLM. Workload Manager.

workload. The total number of transactions that a given CICSplex is intended to process in a specific period. For example, a workload could be expressed as a number of transactions per hour, or per day. In CICSPlex SM, a named set of transactions and CICS systems, acting as requesting regions, routing regions, and target regions that form a single, dynamic entity.

workload balancing. The technique of balancing a workload across multiple target regions that are capable of processing the work.

workload definition. A user-defined statement of the transaction groups associated with a CICS system that is an AOR. A workload definition can either be linked to a workload specification as part of a workload group or be installed directly into an active workload. See also *workload group, workload specification.*

workload group. A user-defined set of CICSPlex SM workload definitions that can either be linked to a workload specification for automatic installation or be installed directly into an active workload. See also *workload definition, workload specification.*

Workload Manager (WLM). A component of CICSPlex SM that is responsible for managing the transaction workload in a CICSplex through the use of dynamic transaction routing.

workload separation. The technique of separating a workload into discrete parts, and allocating specific transactions to specific AORs.

workload specification. A user-defined statement that identifies a workload and a set of CICS systems acting as AORs. A workload specification also provides default management criteria for transactions that are not defined to CICSPlex SM. It is associated with a CICS system that is a TOR and is automatically installed each time the CICS system starts up. See also *workload definition, workload group.*

X

XCF. Cross-system coupling facility of MVS/ESA.

XDM. Extended diagnostic mode

Index

A

accessing BAS   4
accessing views
   for BAS administration   245
   for resource definition   67
action commands
   for administration views   245
   for resource definition views   68
adding assignment to description   254
adding definition to group
   in large numbers   273
   one at a time   72
   overview   19
   when creating definition   70
adding group to description
   directly   281
   overview   22
   with resource assignment   250
administration menu
   business application services   245
   resource definition   67
administration views
   accessing   245
   common actions   245
   RASGNDEF   247
   RASINDSC   256
   RASPROC   258
   RDSCPROC   260
   RESDESC   262
   RESGROUP   270
   RESINDSC   282
   RESINGRP   284
   SYSRES   290
alter expression
   description   16
   specifying   75
altering resource definitions   73
application resources
   controlling   32
   example of defining   49
assigning resources to CICS systems
   overview   22
   using RASGNDEF view   247
associating assignment with
  description   254
associating definition with group
   in large numbers   273
   one at a time   72
   overview   19
   when creating definition   70
associating group with description
   directly   281
   overview   22
   with resource assignment   250
automatic installation of resources
   enabling   265
   overview   35
availability, CICS release   81

B

batched repository-update facility
   for accessing BAS   5
   for migrating RDO definitions   30,
   295
bridge exit   223

C

CICS release availability   81
CICS system link   287
   creating   287
   installing   288
   removing   289
CICS systems, connecting
   description   16
   example of   45
CONNDEF view   82
connecting CICS systems   285
   description   16
   example of   45
connection definition   82
creating CICS system link   287
creating resource assignment   249
creating resource definition
   description   13, 68, 70
   versions of   14
creating resource description   264
creating resource group   272
CSD records, extracting
   compatibility considerations   302
   for migration to CICSPlex SM   29, 30
   identifying records   296
   password considerations   302
   processing output   300
   sample JCL   298
   specifying EXTRACT command   298
   using DFHCSDUP EXTRACT
     routine   295

D

DB2CDEF view   92
DB2EDEF view   100
DB2TDEF view   105
defining resources
   comparison with RDO   11
   connections   83
   DB2 connections   90
   DB2 entries   99
   DB2 transactions   104
   document template   108
   enqueue model   112
   example of   49
   FEPI nodes   113
   FEPI pools   117
   FEPI property sets   122
   FEPI targets   126
   file key segments   143
   files   115, 119, 123, 128, 132, 164
   journal models   151

defining resources *(continued)*
   journals   146
   LSR pools   154
   map sets   158
   partition sets   180
   partners   161
   profiles   169
   programs   174
   request model   184
   sessions   186
   TCP/IP service   195
   temporary storage model   229
   terminal   206
   transaction   215
   transaction class   226
   transient data queue   198
   typeterm   232
defining system links   285
DFHCSDUP EXTRACT routine
  (EYU9BCSD)
   as supplied   295
   creating input   296
   editing the output   301
   sample JCL   298
   submitting a job   298
   supplied output   300
   using for migration   29, 30
DOCDEF view   106
Document template definition   106
dynamic installation of resources
   example of   58
   forcing   38
   from a resource description   267
   from a resource group   275
   individually   76
   overview   36, 39
   pre-installation checks   38

E

ENQMDEF view   110
enqueue model definition   110
errors
   inconsistent resource set   25, 27
   inconsistent scope   27, 29
   resource installation   40, 43
example tasks
   defining application resources   49
   establishing CICSplex
     connectivity   45
   installing resources dynamically   58
extracting CSD records
   compatibility considerations   302
   for migration to CICSPlex SM   29, 30
   identifying records   296
   password considerations   302
   processing output   300
   sample JCL   298
   specifying EXTRACT command   298
   using DFHCSDUP EXTRACT
     routine   295

EYU9BCSD
  as supplied 295
  creating input 296
  editing the output 301
  sample JCL 298
  submitting a job 298
  supplied output 300
  using for migration 29, 30

F

FENODDEF view 113
FEPI node definition 113
FEPI pool definition 117
FEPI property set definition 122
FEPI target definition 126
FEPOODEF view 117
FEPRODEF view 122
FETRGDEF view 126
file definition 130, 163
file key segment definition 142
FILEDEF view 130, 163
filter expression
  description 16, 23
  specifying
    with a resource assignment 252
    with a resource group 279
    with ALTER action 73
forcing installation of a resource 38
FSEGDEF view 142

G

grouping resources
  in a resource description 262
  in a resource group 270
  overview 18, 22

I

inconsistent resource set 25, 102
inconsistent resource set errors 25, 27
inconsistent scope errors 27, 29
installation checks, resource 38
installation errors, resource 40, 43
installing CICS system link 288
installing resources
  at CICS initialization 35
  automatically 35
  deciding where 39, 40
  dynamically 36, 39
  example of 58
  from a resource description 267
  from a resource group 275
  handling of errors 40, 43
  individually 76
  support for 35

J

journal definition 145
journal model definition 149
JRNLDEF view 145
JRNMDEF view 149

K

key segment definition 142

L

logical scope
  description 32
  specifying 265
LSR pool definition 152
LSRDEF view 152
LU6.2 connection definition 82

M

map set definition 157
MAPDEF view 157
menu, administration
  business application services 245
  resource definition 67
migrating from RDO
  DFHCSDUP EXTRACT routine 295
  overview 29, 32
MRO connection definition 82

O

override expression
  description 16, 23
  specifying
    with a resource 79
    with a resource assignment 254
    with a resource group 281
overview 3

P

PARTDEF view 160
partition set definition 179
partner definition 160
pattern matching, RQMDEF 185
PROFDEF view 167, 185
profile definition 167, 185
PROGDEF view 173
program definition 173
PRTNDEF view 179

R

RASGNDEF view 247
RASINDSC view 256
RASPROC view 258
RDO (resource definition online)
  comparison with 11
  migrating from
    DFHCSDUP EXTRACT
      routine 295
    overview 29, 32
RDSCPROC view 260
related scope
  description 39
  specifying
    for resource 77
    for resource assignment 250
    for resource assignment in
      description 255, 258
    for resource description 267
    for resource group 276
remote resource, identifying 23
removing CICS system link 289

removing resources
  resource assignment 248
  resource assignment from
    description 256
  resource definition 80
  resource definition from group 285
  resource description 263
  resource group 270
  resource group from description 283
request model definition 182
  generic pattern matching 185
RESDESC view 262
RESGROUP view 270
RESINDSC view 282
RESINGRP view 284
resource assignment
  adding to resource description 254
  creating 249
  description 22
  displaying 247
  displaying results of 258
  updating resource description
    association 257
  using for migration 31
  using to group resources 20
resource checking, CICS
  CICS system assignments 27, 29
  individual resource 24
  set of resources 25, 27
resource definition
  adding to resource group
    in large numbers 273
    one at a time 72
    when creating definition 70
  browsing 70
  creating 68, 70
  description 13, 16
  installing 76
  removing 80
  updating
    in large numbers 73
    one at a time 70
    overview 15
  versions of 14
resource definition online (RDO)
  comparison with 11
  migrating from
    DFHCSDUP EXTRACT
      routine 295
    overview 29, 32
resource definition views
  accessing 67
  common actions 68
  CONNDEF 82
  DB2CDEF 92
  DB2EDEF 100
  DB2TDEF 105
  DOCDEF 106
  ENQMDEF 110
  FENODDEF 113
  FEPOODEF 117
  FEPRODEF 122
  FETRGDEF 126
  FILEDEF 130, 163
  FSEGDEF 142
  JRNLDEF 145
  JRNMDEF 149

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