

7.1.0



User's Guide

First Edition (August 2007)

This edition applies to Version 7.1.0 of Application Deployment Manager (program number: 5639-I70) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Contents

About this book vii

Who should read this book vii

Conventions used in this book vii

Chapter 1. Overview of Application Deployment Manager 1

Chapter 2. Customization 3

ADM workstation setup and customization 3

 ADM preferences 3

 Export/Import Systems Registry 4

 Defining CICS primary connection regions 5

 Providing the CICSplex name 6

z/OS server customization 6

 Modifying the ADM PIPELINE definition 6

 Security for CRD client API Web services 7

Chapter 3. CICS resource definition editor 9

Supported environments 9

CICS resource definition language restrictions 10

CICS region deployment scope 10

CRD editor-supported CICS resource definitions 10

Launching the CICS Resource Definition editor 10

Using the CRD editor 11

CRD editor function for the system programmer 12

CRD editor function for the application developer 12

Chapter 4. Messages 15

Manifest messages 15

Validation messages 15

Transfer messages 16

CICSplex System Manager (CICSplex SM) return

and error codes 16

 CICSplex SM return codes: 16

 CICSplex SM error codes 19

CICS response 2 (RESP2) codes 21

CICS Resource Deployment server return codes 22

CICS Resource Deployment server reason codes 23

CICS management tools installation indicators: 28

CICS resource definition authorization indicator 28

Build messages 28

About this book

As IBM's premier enterprise application-development environment, IBM® Rational® Developer for System z™ brings traditional development capabilities, the power of Java™ 2 Platform, Enterprise Edition (J2EE) and rapid application-development support to diverse enterprise application-development teams. With comprehensive development tools to help create, deploy and maintain traditional enterprise and composite applications, developers from different technical backgrounds can easily participate in on demand business projects together. As traditional programmers collaborate in the process of creating modern applications, their exposure to new technologies widens while they continue to use their existing skills.

Who should read this book

This User's Guide covers the customization, usage, and messages for Application Deployment Manager.

The Application Deployment Manager User's Guide is intended for Rational Developer for System z developers who deploy Rational Developer for System z or generated artifacts to z/OS®. It is also intended for z/OS system programmers who will use Rational Developer for System z to supply CICS® resource definition defaults.

Conventions used in this book

The following typographical conventions are used in this book:

Table 1. Typographical conventions

Convention	Meaning
Monospace	Indicates text you must enter at a command prompt and values you must use literally, such as commands, functions, and resource definition attributes and their values. Monospace also indicates screen text and code examples.
<i>Italics</i>	Indicates variable values you must provide (for example, you supply the name of a file for <code>file_name</code>). Italics also indicates new terms, emphasis and the titles of books.
>	When used to describe a menu, shows a series of menu selections. For example, "Click File > New " means "From the File menu, click the New command."

Chapter 1. Overview of Application Deployment Manager

As Rational Developer for System z encompasses an increasing number of components including Enterprise Service Tools (EST), Integrated Development Environment for System z (IDE), Database Application Generator, BMS Map Designer, and MFS Map Designer. Each of these components produces or generates z/OS artifacts, and many of these newer components produce artifacts specifically for CICS. This increasingly robust mix of application development components for z/OS has resulted in a broad set of requirements for deploying all Rational Developer for System z artifacts to the z/OS platform.

The Application Deployment Manager (ADM) provides a common deployment approach for all Rational Developer for System z components. In this context the term deploy is defined as a multi stage process that includes artifact transfer, build, and CICS resource definition. ADM aids in artifact transfer by preventing inadvertent overwrite of existing artifacts. CICS resources can be defined by the ADM CICS Resource Definition (CRD) editor.

Chapter 2. Customization

Customization of the ADM workstation and z/OS server are covered in this section.

ADM workstation setup and customization

ADM has two levels of workstation setup and customization. ADM preferences are system values, and target system definitions define and provide connection information for target systems. This section describes the necessary workstation customization.

ADM preferences

Use the ADM preferences window to do the following:

- Set the local name of the Systems registry file
- Set the ADM activity log file name
- Set the maximum activity log file size
- Set the maximum number of backup activity log files
- Cause events to be logged to the Eclipse console
- Cause events to be logged to the activity log file
- Set the activity log file level of event logging (none, fatal, error, warn, info, debug)

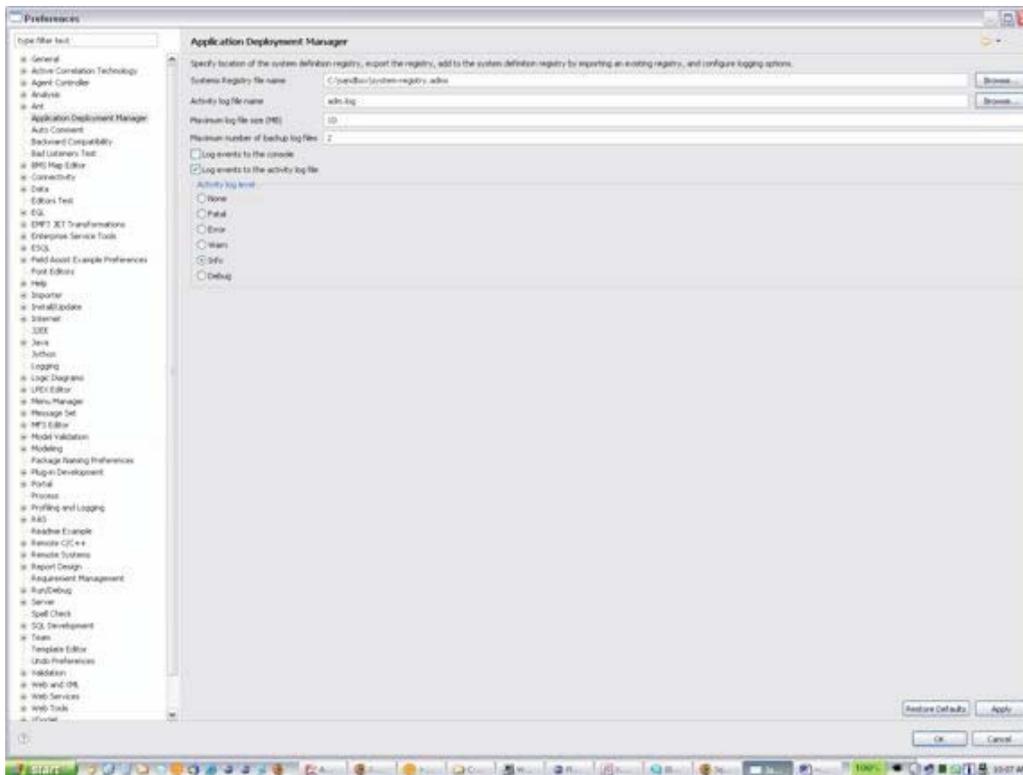


Figure 1. ADM Preferences

Export/Import Systems Registry

The current systems registry can be exported to an external file or an external systems registry file can be imported and merged with the current systems registry. To export the current systems registry:

1. Click **File > Export > ADM Export Systems Registry**.
2. Click **Next**.
3. Select the file path that you want to export.
4. Click **Finish**.

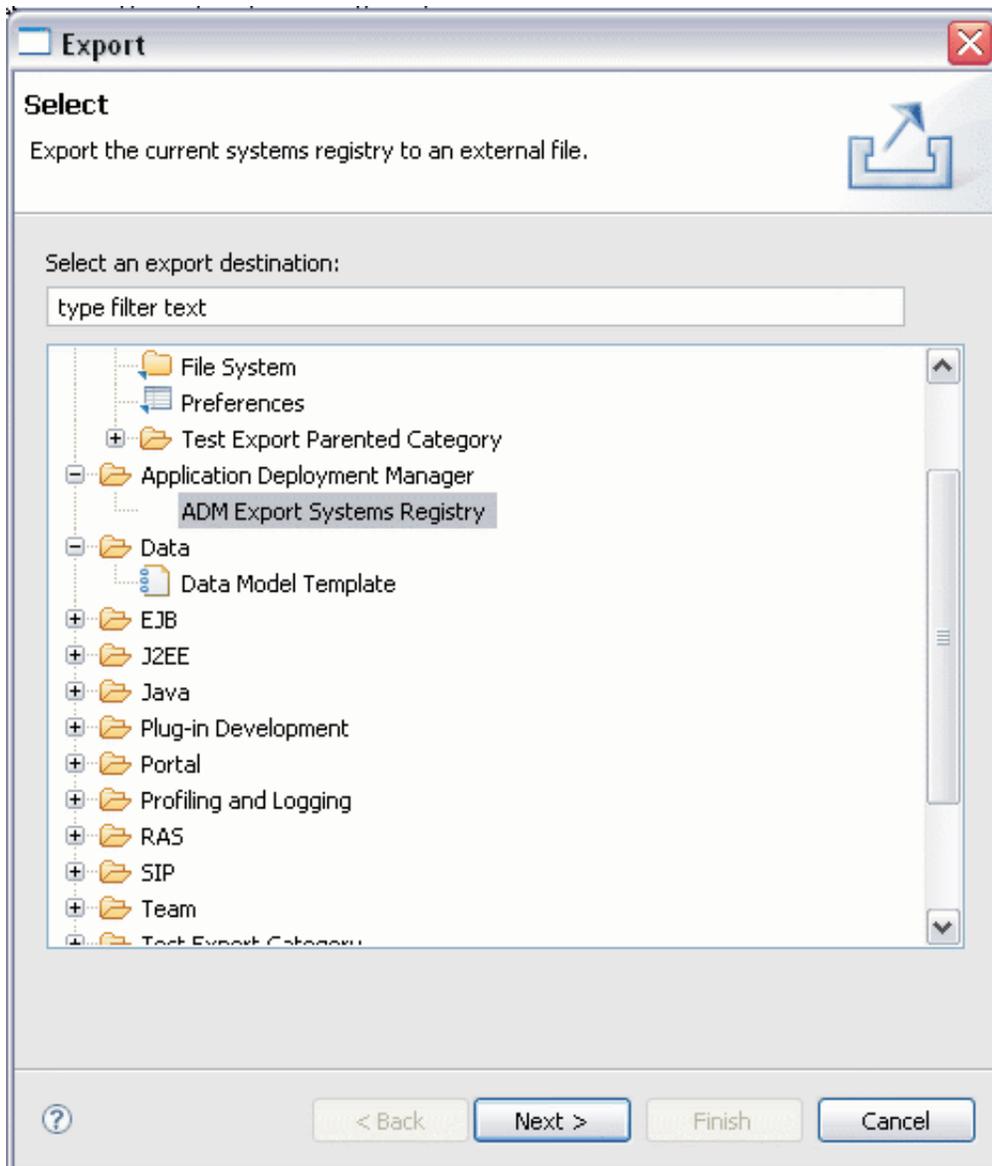


Figure 2. Export window

The process for importing an external registry into the current systems registry is similar. Click **File > Import > ADM Import Systems Registry**, choose an existing registry file, and click **Finish**.

Defining CICS primary connection regions

The ADM CRD client implements a Web service connection to the CICS primary connection region. CICS primary connection regions must be configured using ADM. First, launch the CICS resource definition editor by right clicking on on the root folder of a Service Flow project (refer to “Launching the CICS Resource Definition editor” on page 10 for more information). The Systems/Regions tab is used to add or edit CICS primary connection regions. A user error is indicated by a red “X” next to the appropriate field along with a tool tip describing the error. The required information includes:

- Region name
- Description

- Host name (IP address)
- Port
- UserID
- Password (encrypted when stored)
- Default actions if a system error occurs

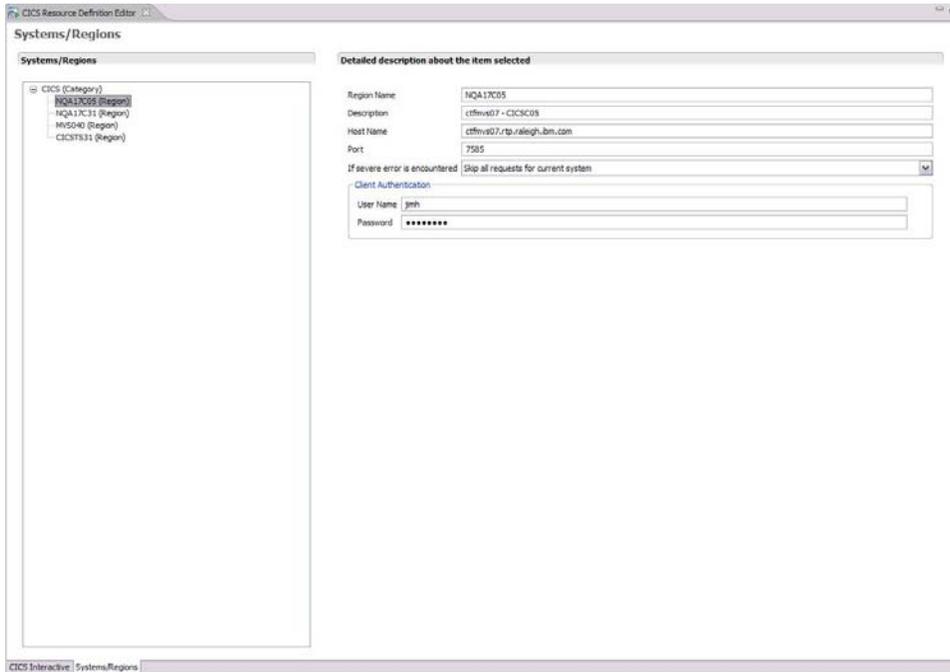


Figure 3. Defining CICS primary connection regions

Providing the CICSplex name

To provide the CICSplex[®] name, use the CICS Interactive tab and do the following:

1. Select **CICSplex** from the **Resource type** pull down.
2. Select **Provide CICSplex name** from the **Action** pull down.
3. Enter the CICSplex name in the **ResourceName** field.

z/OS server customization

The ADM host component is made up of the CRD server, associated CICS resource definitions, Web service bind files, and a sample pipeline message handler. The Rational Developer for System z program directory contains instructions to install the ADM host component. However, certain customization might be necessary. This section describes that customization.

Modifying the ADM PIPELINE definition

The Web service binding directory contains a Web service binding (WSBind) file that is associated with a pipeline. The WSBind file is installed automatically by the CICS pipeline scanning mechanism.

At run time, CICS uses information in the Web service binding file to provide the mapping between application data structures and SOAP messages.

ADM provides WSBind files for each of its Web services. The installation process, described in the Rational Developer for System z program directory, installs these supplied WSBind files in the UNIX[®] system services HFS in a Web service binding directory (also known as the pickup directory).

If the directory paths specified in the supplied ADM pipeline definition do not conform to your shops naming conventions then you will need to use the CICS CEDA transaction to modify the supplied PIPELINE definition. This definition contains the WSDIR attribute, which specifies the name of the Web Services pickup directory containing the ADM WSBind files. A sample PIPELINE definition is as follows:

```

Pipeline      : ADMPIPE1
Group        : ADMGROUP
Description   :
Status       : Enabled           Enabled | Disabled
Configfile   : /u/cust/v700/usr/lpp/wd4z/adm/pipeline/wssecurityprovider.xml
(Mixed Case) :
              :
              :
              :
SHelf        : /u/cust/v700/usr/lpp/wd4z/adm/wsshelf
(Mixed Case) :
              :
              :
              :
Wsdire       : /u/cust/v700/usr/lpp/wd4z/adm/wspickup
```

Security for CRD client API Web services

Some, or all, of these requests should be secured. At a minimum, the update CRD client API commands (update default Web service parameters, default descriptor parameters, and file name to data set name binding) should be secured to prevent all but CICS system programmers from issuing these commands used to set global resource defaults.

The CRD server repository file should be installed with resource-level security that requires update authority. An external security manager (for example, RACF[®]) should be used to define the CICS user IDs that have the proper level of update authorization.

When the SOAP message is received by CICS it is processed by a pipeline. A pipeline is a set of message handlers that are executed in sequence. CICS reads the pipeline configuration file to determine which message handlers should be invoked in the pipeline.

A message handler is a program in which you can perform special processing of Web service requests and responses.

ADM provides a sample pipeline configuration file that specifies the invocation of a message handler and a SOAP header processing program.

CPIH is the default transaction ID under which an application invoked by a pipeline will run. Typically, CPIH is set for a minimal level of authorization. *ADNSMSGH* is a sample message handler used to set a new CICS transaction ID as follows:

- *ADMD* for requests that set Web service and CICS resource defaults. Typically, this is intended for CICS systems programmers and should require a high level of authorization.
- *ADMI* for requests that define, install, or uninstall CICS resources. This might require a medium level of authorization.
- *ADMR* for all other requests that retrieve CICS environmental or resource information. This might require a minimal level of authorization.

When the transaction is attached, CICS resource security checking insures that the user ID is authorized to run the transaction ID.

Resource checking is controlled by the *RESSEC* option in the transaction that is running, the *RESSEC* system initialization parameter, and for the CRD server, the *XPCT* system initialization parameter.

Resource checking occurs only if the *XPCT* system initialization system initialization parameter has a value other than *NO* and either the *RESSEC* option in the *TRANSACTION* definition is *YES* or the *RESSEC* system initialization parameter is *ALWAYS*.

ADNSMSGH can be modified, and must be compiled by the customer. The compilation job must name the module *ADNTMSGH* in the link edit step.

In addition the *TCPIPSERVICE* definition can optionally specify an *HTTPS* connection to provide encryption for the entire *SOAP* message.

Chapter 3. CICS resource definition editor

The Rational Developer for System z CICS Resource Definition editor provides support for defining CICS resources. It is a Rational Developer for System z component and is a consumer of ADM deployment services for deployment of defined CICS resources.

Traditionally, the role of defining resources to CICS has been the domain of the CICS system programmer. There has been a reluctance to allow the application developer the to define CICS resources for the following reasons:

- Most CICS resource definitions have many parameters that because of their complexity, interrelationship with other resource definitions, and shop standards require CICS systems programming knowledge to define correctly. Incorrect definitions can cause unexpected results that might impact the entire CICS region.
- Most customer shops provide CICS development and test environments that must be available for shared use by multiple application groups and developers. Many customer shops have Service Level Agreements in place for these environments. Meeting these agreements requires strict control of the environments.

The Rational Developer for System z CRD editor addresses these issues by allowing the CICS system programmers to control CICS resource definition defaults, and to control the display properties of a CICS resource definition parameter. For example, the CICS system programmer can supply certain CICS resource definition parameters that might not be updated by the application developer. Other CICS resource definition parameters may be updateable, with or without supplied defaults, or the CICS resource definition parameter can be hidden to avoid unnecessary complexity.

Supported environments

The CRD editor supports definition of CICS resources in CICS TS 3.1 systems, with or without CPSM.

When CPSM is not installed, the CRD server uses the CICS CREATE SPI command to define and install (and enable) CICS resources. In this case, the CSD is not updated. Therefore, CEDA cannot be used to view the resource definitions. However, CEMT INQUIRE can be used, although it does not display all definition parameters.

CICS resources installed using the CICS CREATE SPI command do NOT survive a CICS cold start. Normally, CICS is warm-started. If CICS is cold started these resources will have to be redefined and installed.

When CPSM is installed, the CPSM Business Application Services (BAS) interface is used to define and install CICS resources. In this case, the CSD is not updated. Therefore, CEDA cannot be used to view the resource definitions. However, both the CEMT INQUIRE and the CPSM BAS interface can be used to view CICS resources. The CPSM BAS interface will list all definition parameters.

CICS resources installed using CPSM BAS update the CPSM repository and do survive a CICS cold start.

CICS resource definition language restrictions

CICS resource names and other alphanumeric resource attributes are usually limited to the characters that are common in all variants of EBCDIC. This does not include bi-directional or DBCS characters. See the *CICS TS Resource Definition Guide* (SC34-6430) for precise information about the valid characters for each resource type and attribute.

CICS region deployment scope

Rational Developer for System z ADM uses a Web service to connect to a CICS TS 3.1 region running the CRD server. CICS resources may be installed in the CRD server region and in other regions according to the following scenarios.

- **CPSM not installed** - The CICS TS 3.1 region running the CRD server has MRO connections to other CICS regions. CICS resources may be installed in these regions using the agent functions of the CRD server. The CRD server program must be installed in the remote regions where it acts as an agent.
 - **CPSM installed** - The CICS TS 3.1 region running the CRD server is managed by CICSplex SM (CPSM). CICS resources may be installed in other CICS regions that are also managed by CPSM. The CPSM BAS interface is used for this purpose.
-

CRD editor-supported CICS resource definitions

The following CICS resource definitions are supported by the CRD editor:

- DB2TRAN
 - DOCTEMPLATE
 - FILE
 - MAPSET
 - PROCESSTYPE (intended for use by SFM to enable and disable microflows)
 - PROGRAM
 - TDQUEUE
 - TRANSACTION
-

Launching the CICS Resource Definition editor

Perform the following steps to launch the CICS Resource Definition editor. If you already have a Service Flow Project, skip to step 4.

1. Open the Enterprise Service Tools perspective.
2. Click the **Enterprise Service Tools Menu** icon and select **Service Flow Project**.
3. In the New Service Flow Project wizard, do the following:
 - a. Enter a project name.
 - b. Check **I will specify the service flow later**.
 - c. Click **Finish**.
4. Right-click on the root project folder and select **CICS Resource Definition**.

Using the CRD editor

The CRD editor function is implemented as a Rational Developer for System z component. It has applicability to both the application developer and the system programmer roles.

The system programmer uses the CRD editor to supply z/OS-based parameter defaults for all CRD editor supported CICS resource definitions, CICS resource definition parameter display properties, supply binding information for VSAM files, and when CPSM is installed to provide the CICSplex name.

The application developer uses the CRD editor to define CICS resource definitions.

Figure 4 shows the CRD editor being used to define a transaction.

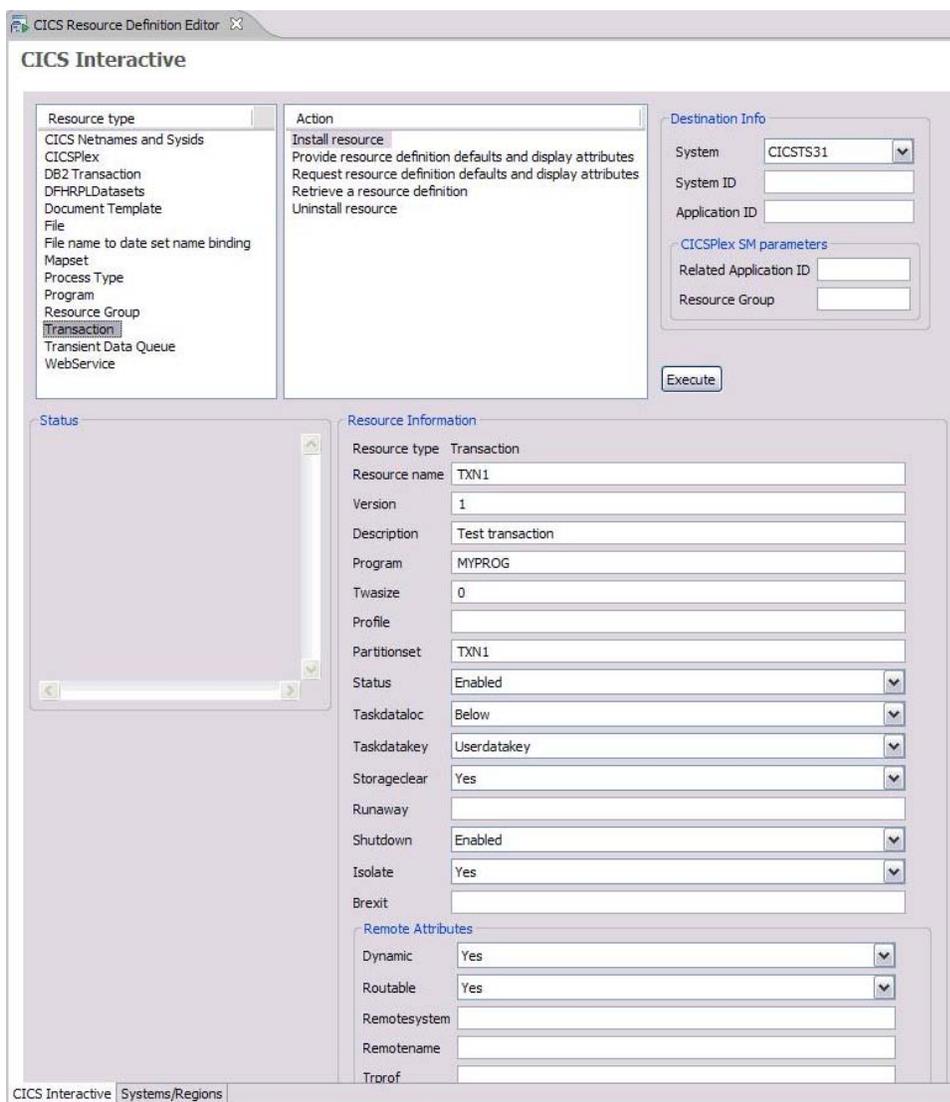


Figure 4. CICS Resource Definition Editor

CRD editor function for the system programmer

The CRD editor implements the following functions intended for use by the CICS system programmer:

Retrieve/update CICS resource definition defaults

The user selects a specific CICS resource type. The default parameters for this resource type are retrieved from z/OS by the CRD server. For the initial provisioning for a specific resource type the CRD server supplies suggested resource parameter defaults.

The resource is displayed as it typically appears when creating a new resource definition of this type. Entries in the parameter fields are used to update defaults on the CRD server repository file on z/OS. These defaults are then used for subsequent creation of resource definitions of the same type.

In addition, the display properties can be set for most resource parameters. Valid display properties are updateable, protected, and hidden.

Each supported resource type will also have a setting to indicate if the resource type is allowed to be defined using the CRD editor.

Retrieve/update CICS VSAM file logical to physical binding

A logical VSAM file name is supplied by the user. If a binding has been previously supplied, the physical dataset name is displayed.

The physical dataset name can then be initially supplied or updated.

The logical to physical binding information is stored in the CRD server repository on z/OS.

The logical to physical VSAM file binding is then used for a subsequent creation of a VSAM file definition using the logical file name.

CRD editor function for the application developer

The CRD editor implements the following functions intended for use by the CICS application developer:

Retrieve/create CICS resource definition

The user selects a specific CICS resource type. The default parameters for this resource type are retrieved from z/OS by the CRD server. If default parameters for this resource type are not found in the CRD server repository, the CRD server supplies suggested resource parameter defaults.

The resource parameters for a particular resource type are displayed according to display values supplied with the resource defaults from the CRD server repository. Resource parameters are displayed as updateable, protected, or hidden.

By default, a created resource is installed in the CICS TS 3.1 region running the CRD server. However, the user may instead indicate that the resource should be installed in another target CICS region.

A resource can be installed in a target region that has an active MRO connection to the primary connection region. This can be done in one of the following ways:

- By supplying a 4 character CICS SYSID in the Sysid field of the DestinationInfo section.

- By supplying the VTAM® Application ID (APPLID), by which the target region is known to VTAM, in the Applid field of the DestinationInfo section.

or

- If CICSPLex SM is installed, by supplying a CICS region name, by which the target region is known to CICSPLex SM, in the Applid field of the DestinationInfo section.

There are two additional benefits to operating in a CICSPLex SM environment, as follows:

- Some CICS resources can be created where a single resource definition can be used for both local and remote definitions. This applies to Program, Transaction, File, and TDQ definitions. In these types of definitions both local and remote attributes are defined in the same definition. When the definition is installed the remote definition attributes are installed in the target region as described above. The local definition attributes are installed in the region specified by the Related Applid field of the DestinationInfo section. The Related Applid field may contain either a VTAM Applid or a CICSPLex SM CICS region name.
- Resource groups can be created. After a resource group has been created, you can specify that resource group when creating other resource definitions by supplying the resource group name in the Resource Group field of the DestinationInfo section. The resource group is now associated with the specified group.

CICS resource parameter values are governed by rules as specified in the *CICS Resource Definition Guide (SC34-6430)*.

The CRD editor supports the following additional functions:

Pipeline (WSBind) Request

Using an Inquire Pipeline SPI command the program returns a list of pipeline names and associated pickup directories. The first entry in the list is the default entry taken from the CRD server profile repository.

WebService (WSDL) request

Using an Inquire Webservice SPI command the program returns a list of pipeline names and associated fully qualified WSDL file names. The information contained in the returned list can then be copied and pasted into the SFM USS deployment panel and the SFM Node Properties panel.

Note: Currently, when a pipeline scan is performed a WebService is automatically created. It appears that these WebService definitions do not have the WSDL file populated. However, a CICS systems programmer could manually create a WebService with the WSDL file information. Most customers might only need a single WSDL directory for all WSDL files.

The first entry in the list is the default entry taken from the CRD server profile repository.

URIMAP (EndPoint) request

Using an Inquire Urimap SPI command the program returns a list

of end point URIs. The information contained in the returned list can then be copied and pasted into the SFM Node Properties panel.

Note: A CICS systems programmer would need to manually create a URIMAP with the value Usage=client. This enables the port information to be appended to the URI. A customer might need two manual URIMAP definitions, one for HTTP and one for HTTPS.

The first entry in the list is the default entry taken from the CRD server profile repository.

CONNECTION request

Using a CICS Inquire Connection SPI command the program returns a list of SYSIDs and associated VTAM APPLIDs (netnames). The information contained in the returned list can then be copied and pasted into the SYSID or APPLID fields on the Interactive Deployment panel where it is used to indicate a CICS region in which the CICS resource is to be installed.

The first entry in the list will be the CICS primary connection region that supports the Web services connection to Rational Developer for System z.

DFHRPL request

The program returns the DFHRPL list of concatenated data sets in an array. This information can be used to select a load module library build property for a remote project.

Pipeline scan request

Using a CICS Perform Pipeline Scan SPI command the specified pipeline pickup directory is scanned resulting in the automatic creation and installation of WEBSERVICE and URIMAP resources for new Web services.

New copy request

Using a CICS Set SPI command the specified program or mapset is refreshed in the deployment system CICS region.

Uninstall request

Using a CICS Discard SPI command the specified resource is removed from the deployment system CICS region. The CRD server uninstall operation for a CICS system without CPSM or CICS CM will only DISCARD the installed definition. If the CICS resource was originally installed using the CEDA transaction or the DFHCSDUP update utility, one of those must be used to DELETE the definition from the CSD. If CPSM is installed, the CREATED CPSM resource definition is also DELETED from the CPSM repository by the CRD server.

Chapter 4. Messages

Messages are logged to the ADM activity log and optionally to the Eclipse console. The name and location of the ADM activity log can be found by accessing the ADM preferences window.

All ADM messages are of the format `WZADnnnnL`, where `WZAD` is the ADM prefix, `nnnn` is the unique message number, and `L` is the message level. The message level can have values `S` for severe errors, `E` for error, `W` for warning, and `I` for informational.

Manifest messages

WZAD0001I ADM has been successfully activated.

Explanation: The ADM plug-in started successfully.

User response: No action is required.

Validation messages

WZAD2001E The dataset or folder <dataset/folder name> does not exist.

Explanation: An error was encountered while performing the specified action.

User response: Verify that the dataset or folder that is being accessed exists on the file system.

WZAD2002E The member or file <member/file name> does not exist.

Explanation: An error was encountered while performing the specified action.

User response: Verify that the dataset member or file that is being accessed exists on the file system.

WZAD2003E The member or file <member/file name> already exists in the dataset/folder <dataset/folder name>.

Explanation: An error was encountered while performing the specified action.

User response: Follow the action in the message prompt. Either use a new member/file name, overwrite the existing one, or skip the current one as instructed in the message prompt.

WZAD2004E An error was encountered while creating the member or file <member/file name> in the dataset/folder <dataset/folder name>.

Explanation: An error was encountered while performing the specified action.

User response: Verify that the file system is not full, that the dataset or folder exists, and that you have permission to create members or files.

WZAD2005E An error was encountered while retrieving the member or file <member/file name> from the dataset/folder <dataset/folder name>.

Explanation: An error was encountered while performing the specified action.

User response: Verify that the dataset or folder exists and that you have permission to read members or files.

Transfer messages

WZAD0002I Attempting to connect to system/region: <system/region name>

Explanation: Connection to the system/region has been initiated.

User response: No action is required.

WZAD0003I Connection successfully established with system/region: <system/region name>.

Explanation: The action listed has been performed.

User response: No action is required.

WZAD0004S Connection failed trying to communicate with system/region: <system/region name>.

Explanation: An error was encountered while performing the specified action.

User response: Verify that the system is active and that server code (CRD, RSE, and so on) is up and running on the remote system/region.

WZAD0005I Sending request: <request name> to system/region: <system/region name>.

Explanation: The action listed is being performed.

User response: No action is required.

WZAD0006I Request: <request name> successfully sent to system/region: <system/region name>.

Explanation: Connection to the system/region has been initiated.

User response: No action is required.

WZAD0007E Unable to send request: <request name> to system/region: <system/region name>.

Explanation: An error was encountered while performing the specified action.

User response: Verify that the system is active and that server code (CRD, RSE, and so on) is up and running on the remote system/region.

WZAD0008S An error was encountered while retrieving deployment system categories.

Explanation: An error was encountered while performing the specified action.

User response: Contact support.

CICSplex System Manager (CICSplex SM) return and error codes

The following messages might be logged if the CICSplex System Manager is installed to manage CICS resources. Additional information can be found in the following CICSplex SM manuals:

CICSplex SM Application Programming Reference (SC34-6469)

CICSplex SM Application Programming Guide (SC34-6468)

CICSplex SM Resource Tables Reference (SC34-6470)

CICSplex SM return codes:

WZAD1050I CPSM Return code: Ok

Explanation: All CICSplex SM functions completed normally.

User response: No action is required.

WZAD1051E CPSM Return code: Scheduled

Explanation: The CICSplex SM command has been scheduled for processing. This condition should not occur.

User response: Contact support.

WZAD1052E CPSM Return code : Not found

Explanation: Either an action or an attribute is not found to be associated with the CICSplex SM resource table for this resource.

User response: Contact support.

WZAD1053E CPSM Return code: No data

Explanation: A CICSplex SM Get Object command was issued, but no records were found that matched the specified search criteria.

User response: Verify that that a CICSplex SM resource definition has not been inadvertently deleted.

WZAD1054E CPSM Return code : Not valid - parameter

Explanation: A CICSplex SM command was issued and an invalid parameter was detected. The parameter that is invalid is returned as the reason value.

User response: Use the reason code to determine the identity of the parameter.

WZAD1055E CPSM Return code : Failed

Explanation: A CICSplex SM command failed because of an abend or an exception condition.

User response: Use the reason code to determine if an abend or exception condition occurred.

WZAD1056E CPSM Return code : Environment error

Explanation: A CICSplex SM command failed because of an environment error for one of the following reasons:

No Service: The application stub program could not load the API service module.

No Storage: The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

Request Time out: One of the CMASs or MASs to which the request was directed did not respond.

Soc Resource: A required resource that is owned by the CMAS is not available.

User response: Use the reason code to determine if a No Service, No Storage, Request Time Out, or Soc Resource condition occurred.

WZAD1057E CPSM Return code : Not permitted

Explanation: A CICSplex SM command was not permitted for one of the following reasons:

Expired: The security authorization of the specified user ID has expired.

Sign-on parameter: The specified signon parameter is not authorized for the user ID.

UserID: The specified user ID does not have the required security authorization.

User response: Use the reason code to determine if an expired, sign-on parameter, or userid condition occurred.

WZAD1058E CPSM Return code : Busy

Explanation: A CICSplex SM command failed because the result set specified on the RESULT option is being processed by another command.

User response: Retry the operation. If the condition persists notify support.

WZAD1059E CPSM Return code : Server gone

Explanation: The CMAS to which the processing thread was connected is no longer active.

User response: CMAS may have ended. Retry the operation. If the condition persists notify support.

WZAD1060E CPSM Return code : Not available

Explanation: A not available condition occurred for one of the following reasons:

APITASK: The API control subtask is not active.

CMAS: A CMAS to which the request was directed is not available. CPSMAPI: The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT: The maintenance point for the current context is not available.

User response: CMAS may have ended. Retry the operation. If the condition persists notify support.

WZAD1061E CPSM Return code : Not valid version

Explanation: A version conflict occurred for one of the following reasons:

NOTSUPPORTED: The version of the application stub program used for this command is not supported.

NOTVSNCONN: The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

User response: Use the reason code to determine if a NOTSUPPORTED or NOTVSNCONN condition occurred.

WZAD1062E CPSM Return code : Not valid command

Explanation: A CICSplex SM command was issued and the command is invalid for one of the following reasons:

FILTER: The filter expression passed on the operation is too large or complex.

LENGTH: The total length of all the options on the command exceeds the maximum limit.

User response: Use the reason code to determine if a Filter or Length condition occurred.

WZAD1063E CPSM Return code : Warning

Explanation: A CICSplex SM command completed processing with a warning, for the following reason:

MAXRECORDS: The number of records added to the result set by a MAS would have exceeded the MAXHISTRECS value for that MAS.

RESULT: During the building of the result set to be used on the command, a non-OK response was received. However some result set records were available and the requested action was successfully performed against them.

During the building of the result set to be used on the command, a non-OK response was received. However some result set records were available and the requested action was attempted.

User response: Use the reason code to determine if a MAXRECORDS, RESULT, or ACTION condition occurred.

WZAD1064E CPSM Return code : Table error

Explanation: A CICSplex SM command failed because a resource table record is invalid for one of the following reasons:

DATAERROR: The value associated with one or more resource table attributes is invalid. This error can occur if:

- The resource table is missing required attributes, contains one or more conflicting attributes, or is a duplicate.

- A CICS resource definition contains attributes that would cause the EXEC CICS CREATE command to issue warnings.

Use the FEEDBACK command to retrieve additional data about this error.

INVALIDATTR: One of the resource table attributes is invalid. INVALIDVER: The specified version of the resource table is not supported by CICSplex SM.

User response: Use the reason code to determine if a DATAERROR, INVALIDATTR, or INVALIDVER condition occurred. If a DATAERROR occurred the attributes that caused the error are flagged on the result display window.

WZAD1065E CPSM Return code : Incompatible

Explanation: A CICSplex SM command failed because the target result set specified on the RESULT option is not compatible with the output of this command. This condition should not occur.

User response: Contact support.

WZAD1066E CPSM Return code : In use

Explanation: A CICSplex SM DISCARD command failed because an in use condition occurred for one of the following reasons:

FILTER: The specified filter is currently in use and cannot be discarded.

VIEW: The specified view is currently in use and cannot be discarded.

User response: Use the reason code to determine if a FILTER or VIEW condition occurred.

WZAD1067E CPSM Return code : Not valid - data

Explanation: A CICSplex SM command failed because invalid data was detected. The parameter that contains invalid data is returned as the reason value:

PARM: An attribute value listed in the PARM buffer is not valid for the specified attribute.

CRITERIA: An attribute value listed in the CRITERIA buffer is not valid for the specified attribute.

User response: Use the reason code to determine if a PARM or CRITERIA condition occurred.

WZAD1068E CPSM Return code : Duplicate

Explanation: A CICSplex SM command failed because the specified view already exists and cannot be built. This condition should not occur.

User response: Contact support.

CICSplex SM error codes

An attempt to create a CICS resource definition in a CICS system that is managed by CICSplex SM might fail if the value associated with one or more resource table attributes is invalid. An error can occur for the following reasons:

- The resource table is missing required attributes, contains one or more conflicting attributes, or is a duplicate.
- A CICS resource definition contains attributes that would cause the EXEC CICS CREATE command to issue warnings.

The attributes that caused the error are flagged on the result display window and one of the following messages that interpret the CICSplex SM error code to provide an explanation for the invalid attributes. In all cases, the action is to correct the invalid attribute value and resubmit the request.

WZAD1100E CPSM Error code: Attribute data not valid

WZAD1101E CPSM Error code: Requested resource not found

WZAD1102E CPSM Error code: Resource already exists

WZAD1103E CPSM Error code: Resource definition already changed

WZAD1104E CPSM Error code: Not valid - resource type

WZAD1105E CPSM Error code: Not valid - resource version

WZAD1106E CPSM Error code: Maintenance point CMAS not available

WZAD1107E CPSM Error code: Context not found

WZAD1108E CPSM Error code: Inconsistent set condition

WZAD1109E CPSM Error code: Resource group not found

WZAD1110E CPSM Error code: Not valid - action

WZAD1111E CPSM Error code: Not valid - record address

WZAD1112E CPSM Error code: Not valid - record length

WZAD1113E CPSM Error code: Different version

WZAD1114E CPSM Error code: Early name list end

WZAD1115E CPSM Error code: Not valid - name list

WZAD1116E CPSM Error code: Not valid - name

WZAD1117E CPSM Error code: Not valid - minor name

WZAD1118E CPSM Error code: Notify

WZAD1119E CPSM Error code: Partial install

WZAD1120E CPSM Error code: Nothing installed

WZAD1121E CPSM Error code: No targets

WZAD1122E CPSM Error code: No related systems

WZAD1123E CPSM Error code: Not valid - target scope

WZAD1124E CPSM Error code: Not valid - related scope

WZAD1125E CPSM Error code: Not valid - usage

WZAD1126E CPSM Error code: Not valid - mode

WZAD1127E CPSM Error code: Not valid - state check

WZAD1128E CPSM Error code: Not valid - force install

WZAD1129E CPSM Error code: Not valid - notify

WZAD1130E CPSM Error code: Not valid - oertype

WZAD1131E CPSM Error code: Not valid - override block

WZAD1132E CPSM Error code: Not valid - override string

WZAD1133E CPSM Error code: Not valid - string terminator

WZAD1134E CPSM Error code: Not valid - embedded terminator

WZAD1135E CPSM Error code: Not valid - attribute

WZAD1136E CPSM Error code: Not valid - literal

WZAD1137E CPSM Error code: Not valid - override string

WZAD1138E CPSM Error code: Scope required

WZAD1139E CPSM Error code: Usage conflict

WZAD1140E CPSM Error code: No definitions selected

WZAD1141E CPSM Error code: More than one related system

WZAD1142E CPSM Error code: Missing related system identifier

CICS response 2 (RESP2) codes

Only selected CICS RESP2 codes are documented in this publication. For additional information refer to the following books:

CICS System Programming Reference (SC34-6435)

CICS Application Programming Reference (SC34-6434)

When an attempt to create a CICS resource definition with an invalid attribute is detected in a CICS system that is not managed by CICSplex SM the following message is logged.

WZAD1424E CRD Reason code: Not valid - create resource attribute string

The attributes that caused the error are flagged on the result display window and the WZAD1424E message might be accompanied by one of the following messages that interpret the CICS RESP2 code to provide an explanation for the invalid attributes. In all cases, the action is to correct the invalid attribute value and resubmit the request.

WZAD1200E CICS RESP2: A required keyword is omitted

WZAD1201E CICS RESP2: One specified keyword requires another one to be specified

WZAD1202E CICS RESP2: A keyword occurs more than once

WZAD1203E CICS RESP2: Conflicting keywords are specified

WZAD1204E CICS RESP2: An Not valid - operand is supplied

WZAD1205E CICS RESP2: An operand is supplied for a keyword that does not need one

WZAD1206E CICS RESP2: A required operand for a keyword is omitted

WZAD1207E CICS RESP2: The operands of two or more keywords conflict with one another

WZAD1208E CICS RESP2: The value of the operand of a keyword is too small

WZAD1209E CICS RESP2: In the pair of values specified as the operand of a keyword, the second value must not exceed the first

WZAD1210E CICS RESP2: The value of the operand must be different from the name of the resource

WZAD1211E CICS RESP2: A closing parenthesis has been omitted from the DESCRIPTION keyword

CICS Resource Deployment server return codes

Requests processed by the CICS Resource Deployment (CRD) server return one of the following return codes. For the Warning and Error return codes an accompanying reason code is also provided.

WZAD1300I CRD Return code: Ok

WZAD1301W CRD Return code: Warning

WZAD1302E CRD Return code: Error

CICS Resource Deployment server reason codes

WZAD1400E CRD Reason code: Commarea too short for response

Explanation: The communication area passed to the CRD server from the CRD client was too short to contain the response.

User response: Contact support.

WZAD1401E CRD Reason code: Too many items to return

Explanation: There were more array items than could be returned.

User response: Contact support.

WZAD1402E CRD Reason code: Inquire webservice start failure

Explanation: An Inquire Webservice Start command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1403E CRD Reason code: Inquire webservice next failure

Explanation: An Inquire Webservice Next command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1404E CRD Reason code: Inquire webservice end failure

Explanation: An Inquire Webservice End command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1405E CRD Reason code: Inquire pipeline start failure

Explanation: An Inquire Pipeline Start command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1406E CRD Reason code: Inquire pipeline next failure

Explanation: An Inquire Pipeline Next command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1407E CRD Reason code: Inquire pipeline end failure

Explanation: An Inquire Pipeline End command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1408E CRD Reason code: Inquire urimap start failure

Explanation: An Inquire URIMap Start command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1409E CRD Reason code: Inquire urimap next failure

Explanation: An Inquire URIMap Next command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1410E CRD Reason code: Inquire urimap end failure

Explanation: An Inquire URIMap End command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1411E CRD Reason code: Inquire connection start failure

Explanation: An Inquire Connection Start command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1412E CRD Reason code: Inquire connection next failure

Explanation: An Inquire Connection Next command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1413E CRD Reason code: Inquire connection end failure

Explanation: An Inquire Connection End command failed.

User response: Retry the operation. If the condition persists contact support.

WZAD1414E CRD Reason code: Validate failure

Explanation: Prior to a resource create and install, an existing resource with the same name was found.

User response: Decide whether to replace the current definition, skip the current definition, retry, skip all definitions for this system, skip all definitions for this category, or stop the entire operation.

WZAD1415E CRD Reason code: Uninstall failure

Explanation: An Uninstall request failed.

User response: Use the accompanying CICS response codes, or the CPSM return, reason, and error codes to determine the cause.

WZAD1416E CRD Reason code: Resource was not found

Explanation: A request to retrieve a CICS resource definition failed because the resource was not found.

User response: Check that the correct resource name and resource type were specified.

WZAD1417E CRD Reason code: Not valid - command type

Explanation: An invalid request type was received by the CRD server from the CRD client. This should not occur.

User response: Contact support.

WZAD1418E CRD Reason code: Read repository file error

Explanation: An attempt to read the CRD repository failed.

User response: Use the accompanying CICS response codes to determine the cause.

WZAD1419E CRD Reason code: Write repository file error

Explanation: An attempt to write to the CRD repository failed.

User response: Use the accompanying CICS response codes to determine the cause.

WZAD1420E CRD Reason code: Rewrite repository file error

Explanation: An attempt to rewrite to the CRD repository failed.

User response: Use the accompanying CICS response codes to determine the cause.

WZAD1421E CRD Reason code: Not valid - artifact type

Explanation: An invalid artifact type was received by the CRD server from the CRD client. This should not occur.

User response: Contact support.

WZAD1422E CRD Reason code: Not valid - logmessage value

Explanation: A Create resource command was issued with an invalid log parameter. This should not occur.

User response: Contact support.

WZAD1423E CRD Reason code: Not valid - executionset value of dplssubset

Explanation: A Create resource command was issued in a program defined with an EXECUTIONSET value of DPLSUBSET. This should not occur.

User response: Contact support.

WZAD1424E CRD Reason code: Not valid - create resource attribute string

Explanation: A Create resource command was issued that contained a syntax error in the ATTRIBUTES string. The attributes that caused the error are flagged on the result display window.

User response: Use the CICS RESP2 code to determine the specific cause for the flagged attribute.

WZAD1425E CRD Reason code: Inquire db2tran failure

Explanation: An Inquire DB2Tran command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1426E CRD Reason code: Inquire doctemplate failure

Explanation: An Inquire Doctemplate command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1427E CRD Reason code: Inquire file failure

Explanation: An Inquire File command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1428E CRD Reason code: Inquire processtype failure

Explanation: An Inquire Processtype command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1429E CRD Reason code: Inquire program failure

Explanation: An Inquire Program command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1430E CRD Reason code: Inquire tdqueue failure

Explanation: An Inquire TD queue command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1431E CRD Reason code: Inquire transaction failure

Explanation: An Inquire Transaction command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1432E CRD Reason code: CPSM connect error

Explanation: A CPSM Connect command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1433E CRD Reason code: CPSM get object error

Explanation: A CPSM Get Object command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1434E CRD Reason code: CPSM create error

Explanation: A CPSM Create command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1435E CRD Reason code: CPSM install error

Explanation: A CPSM Perform Object with Install action command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1436E CRD Reason code: CPSM delete error

Explanation: A CPSM Delete command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1437E CRD Reason code: CPSM add resource to group error

Explanation: A CPSM Perform Object with AddtoGroup action command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1438E CRD Reason code: CPSM remove resource from group error

Explanation: A CPSM Perform Object with Remove action command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1439E CRD Reason code: ASSIGN FAILURE

Explanation: An Assign command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1440E CRD Reason code: CICS Resource security checking not in effect

Explanation: The check for CICS resource security is no longer performed. This should not occur.

User response: Contact support.

WZAD1441E CRD Reason code: Not valid - attempt to define a CICS transaction with program = CRD server

Explanation: An attempt was made to define a CICS transaction with the program attribute equal to the CRD server program name. This is not allowed.

User response: Change the name of the program.

WZAD1442E CRD Reason code: INQUIRE TCPIP SERVICE FAILURE

Explanation: An Inquire TCPIPService command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1443E CRD Reason code: CPSM FETCH RESOURCE ERROR

Explanation: A CPSM Fetch command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1444E CRD Reason code: CPSM FEEDBACK ERROR

Explanation: A CPSM Feedback command failed.

User response: Use the CPSM return, reason, and error codes to determine the cause.

WZAD1445E CRD Reason code: Discard ERROR

Explanation: A Discard command failed.

User response: Use the CICS RESP and RESP2 codes to determine the cause of the failure.

WZAD1446E CRD Reason code: CPSM CONNECT AUTHORIZATION ERROR

Explanation: A CPSM Connect command failed because the user ID did not have authorization to issue the command.

User response: Check with the security administrator.

WZAD1447E CRD Reason code: CPSM CICSplex NAME NOT IN REPOSITORY

Explanation: CICSplex SM is installed but the CICSplex SM name is not in the CRD repository.

User response: The CICS system programmer should use ADM to provide the CICSplex name to the CRD repository.

WZAD1448E CRD Reason code: CPSM CICS SYSTEM NAME NOT IN TOPOLOGY DATA SPACE

Explanation: CICSplex SM is installed but the *Applid* field contains a value that is not a valid CICSplex SM CICS system name because it cannot be found in the CICSplex SM topology data space.

User response: Correct the name in the *Applid* field.

CICS management tools installation indicators:

The following messages indicate whether CICSplex SM (CPSM) and/or CICS Configuration Manager (CCM) are installed.

WZAD1500I CPSM Indicator: CPSM Not installed

WZAD1501I CPSM Indicator: CPSM Installed

WZAD1502I CCM Indicator: CCM Not installed

WZAD1503I CCM Indicator: CCM Installed

CICS resource definition authorization indicator

The following messages indicate whether the CICS system programmer has authorized a CICS resource type to be installed.

WZAD1504E CRD Resource Authorization: Not authorized

WZAD1505I CRD Resource Authorization: Authorized

Build messages

WZAD0009S An error was encountered while retrieving the deployment manifest

Explanation: An error was encountered while performing the specified action.

User response: Verify that the deployment manifest file that is currently being opened had been created by ADM and has not been modified by a process outside of ADM.

WZAD0010S An error was encountered while attempting to create a persistable object from the deployment manifest

Explanation: An error was encountered while performing the specified action.

User response: Verify that newly added contributors to the ADM framework are operational. If they are, contact support and provide this log.

WZAD0011S An error was encountered while creating the interactive deployment page - <cause>

Explanation: An error was encountered while performing the specified action.

User response: Contact support.

WZAD0012S An error was encountered while creating the deployment manifest page - <cause>

Explanation: An error was encountered while performing the specified action.

User response: Contact support.

WZAD0013S An error was encountered while creating the deployment systems page - <cause>

Explanation: An error was encountered while performing the specified action.

User response: Contact support.

WZAD0014S An error was encountered while saving the deployment manifest file. - <cause>

Explanation: An error was encountered while performing the specified action.

User response: Verify that the file system is not full and that you have permission to write to it.

WZAD0015S The object type that was provided as input to the deployment manifest editor is not valid. The object type must implement interface IFileEditorInput

Explanation: An error was encountered while performing the specified action.

User response: Verify that newly added contributors to the ADM framework are operational. If they are, contact support and provide this log.

WZAD0016I The deployment of the manifest has started

Explanation: The action listed is being performed.

User response: No action is required.

WZAD0017I The deployment of the manifest has been completed

Explanation: The action listed has been performed.

User response: No action is required.

WZAD0018E An error was encountered while deploying the manifest - <cause>

Explanation:

User response: Verify that the system is active and that server code (CRD, RSE, and so on) is up and running on the remote system/region.

WZAD0019E The deployment of the manifest could not be completed because the deployment operation was interrupted

Explanation: An error was encountered while performing the specified action.

User response: Verify that the system is active and that server code (CRD, RSE, and so on) is up and running on the remote system/region.

WZAD0020I The existing registry file is being replaced by the newly imported registry.

Explanation: The action listed is being performed.

User response: No action is required.

WZAD0021S An error was encountered while attempting to export the registry to an existing file. Not able to delete the existing registry file. - <cause>

Explanation: An error was encountered while performing the specified action.

User response: Verify that the file system is not full and that you have permission to delete the manifest files from the location where it resides.

WZAD0022I Writing the systems registry to: <file name>

Explanation: The action listed is being performed.

User response: No action is required.

WZAD0023E An error was encountered while creating a duplicate copy of a deployment system. A default deployment system is instead created. - <cause>

Explanation: An error was encountered while performing the specified action.

User response: Verify that newly added contributors to the ADM framework are operational. If they are, contact support and provide this log.