







**Application Deployment Manager Technology Preview Application  
Developer's User's Guide**



## Second Edition (March 2008)

This edition applies to Version 7.1.1 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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## 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.

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## Who should read this book

This User's Guide covers the customization of user preferences, usage, and messages for the Application Deployment Manager technology preview. It is intended for Rational Developer for System z developers who deploy generated artifacts, especially CICS resource definitions, to z/OS(R).

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## Conventions used in this book

The following typographical conventions are used in this book:

*Table 1. Typographical conventions*

<b>Convention</b>	<b>Meaning</b>
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 <b>File</b> > <b>New</b> " means "From the File menu, click the New command."



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## 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 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. Application Deployment Manager addresses artifact transfer and CICS resource definition in the following ways:

- Application Deployment Manager uses RSE as the underlying transfer agent and prevents inadvertent overwrite of existing artifacts by providing warning pop-ups.
- CICS resources can be defined and installed by Application Deployment Manager.



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## Chapter 2. Overview of Application Deployment Manager technology preview enhancements

The Application Deployment Manager technology preview consists of new plug-ins applied to Rational Developer for System z v 7.1.1. The Application Deployment Manager technology preview provides an enhanced user interface (UI) for defining and editing CICS resource definitions, which are now stored in a manifest file. In addition the CICS TS Explorer is used to view installed CICS resources.

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### CICS TS Explorer

CICS TS Explorer provides an Eclipse based infrastructure to view and manage CICS resources and enables greater integration between CICS tools.

The CICS TS Explorer may be launched in its own perspective, or CICS TS Explorer views may be launched from within other perspectives (i.e. EST perspective). A tree view displays CICS region names. Individual resource views (i.e. transaction, program, file, etc.) are grouped together in tab groups.

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### Resource Definition editor

The Resource Definition editor has a completely new user interface that replaces the CICS Interactive (CRD editor) user interface in previous releases. Additionally, a manifest file is used to store CICS resource definitions for a project or sub-project. Single services generation and service flow projects components of the Enterprise Service Tools (EST) perspective create the manifest file during the project generation phase.

The Resource Definition editor is used to

- Add, edit, and remove CICS resources from a manifest
- Install and enable CICS resources in a manifest, or export a manifest for later processing by a system programmer
- Retrieve CICS resource attribute default values provided by a system programmer
- Retrieve CICS resource attribute edit permissions controlled by a system programmer

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### System Programmer tools

There are two new system programmer tools. These tools are fully documented in the *Application Deployment Manager technology preview System Programmer User's Guide (SC23-8900-00)*.

The Manifest Processing tool is provided as an Eclipse plug-in to the CICS TS Explorer and provides the following function:

- List manifests from a CICS test environment repository. These manifests must have previously been exported by a Rational Developer for System z application developer using the Resource Definition editor.
- Import manifests for processing from a CICS test environment repository

- Update imported manifest resource definitions
- Install imported manifest resource definitions
- Export updated manifests back to the CICS test environment repository

The system programmer administrative utility provides the following function:

- Supply the CICSplex name for CICSplex managed test environments
- Supply CICS resource attribute defaults and display permissions
- Supply the CICS VSAM file logical to physical binding used for VSAM file definitions

---

## Migration from CICS Interactive to Resource Definition editor

CICS Interactive function is being migrated to three new components.

- **Resource Definition editor** contains CICS resource definition function:
  - CICS resource definition (add, edit, delete) and install or export
  - CICS resource attribute value default retrieval and attribute display permissions retrieval are performed automatically when a resource is added to the manifest
  - New copy and pipeline scan requests are performed automatically by the Resource Definition editor when the **Install** button is clicked, or by right clicking the manifest file, selecting **Manage CICS Resource**, and selecting **Rescan** and **Newcopy**.
- **CICS TS Explorer** contains
  - The CICS primary connection region connection definition view on the CICS Interactive systems/regions tab is now found in the CICS TS Explorer preference page. Creating a “Non CICSplex SM” entry on this page also updates connection information required by list function (see below) remaining in CICS Interactive.
  - The following list displays are now individual tabular views in the new CICS TS Explorer:
    - DFHRPL list of concatenated load libraries
    - Pipeline names and pickup directories
    - Connections list of MRO connected regions
- **System programmer administrative utility** contains the following system programmer function:
  - Supply the CICSplex name for CICSplex managed test environments
  - Supply CICS resource attribute defaults and display permissions
  - Supply the CICS VSAM file logical to physical binding used for VSAM file definitions

For the Application Deployment Manager technology preview the following function continues to be provided in CICS Interactive:

- Webservice (WSDL) request
- URIMAP (EndPoint) request
- Uninstall resource request

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## Software prerequisite

The Application Deployment Manager technology preview requires Rational Developer for System z 7.1.1 plus the Rational Developer for System z Fix Pack 7.1.1.1 as prerequisites.





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## Chapter 3. Installation and Customization

Installation and customization of the Application Deployment Manager workstation and z/OS server are covered in this section under the following three topics:

- Installation of the Application Deployment Manager technology preview on the application developer's workstation
- Application Deployment Manager workstation setup and customization
- z/OS server customization

---

### Installation

Installation of the Application Deployment Manager technology preview is comprised of the following tasks.

1. Installing the Rational Developer for System z Fix Pack 7.1.1.1.
2. Downloading the Application Deployment Manager technology preview package
3. Setting Installation Manager preferences
4. Installing the package

### Using Installation Manager

Installation Manager retrieves product packages from specified repository locations. When installing the Application Deployment Manager technology preview you must specify an installation repository that contains the product packages that you want to install. For additional Installation Manager information refer to *Rational Developer for System z Installation Guide (GI11-8297-00)*, section *Managing Installation Manager*.

### Application Deployment Manager technology preview download and extract

You must first download the ADMTechnologyPreview.exe which is a self-extracting executable from the Application Deployment Manager technology preview Web site. Then run the executable to extract the files to a temporary location.

### Setting repository preferences in Installation Manager

After starting the Installation Manager you must set the repository preference to the local file path for the temporary location containing the extracted files in Installation Manager before you can install the package. This is done on the Repositories page of the Preferences window.

To add, edit, or remove a repository location in Installation Manager:

1. Start Installation Manager.
2. On the Start page of Installation Manager, click **File -> Preferences**, and then click **Repositories**. The Repositories page opens, showing any available repositories, their locations, and whether or not they are accessible.
3. On the Repositories page, click **Add Repository**.

4. On the **Add** repository window, browse to the directory containing the extracted repository.config file, and then click **OK**. The new or changed repository location is listed. If the repository is not accessible, a red x is displayed in the *Accessible* column.
5. Click **OK** to exit.

## Installing the Application Deployment Manager technology preview package in Installation Manager

Use the following steps to install the Application Deployment Manager technology preview package.

1. On the Installation Manager main menu window click **Update Packages**.
2. On the Update Packages window select the **Rational Developer for System z Fix Pack 7.1.1.1**, and then click **Next**.
3. Follow the prompts until the Fix Pack 7.1.1.1 has successfully installed.
4. On the Installation Manager main menu window click **Install Packages**
5. On the Install Packages window select the **Application Deployment Manager technology preview package**, and then click **Next**.
6. Follow the prompts until the package has successfully installed.

---

## Application Deployment Manager workstation setup and customization

Application Deployment Manager has two levels of workstation setup and customization.

- Application Deployment Manager preferences are used to provide workstation system values
- CICS primary connection region definitions are used to define and provide connection information for target CICS test environments

### Application Deployment Manager preferences

Use the Application Deployment Manager preferences window to do the following:

- Set the local name of the Systems registry file
- Set the Application Deployment Manager 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)

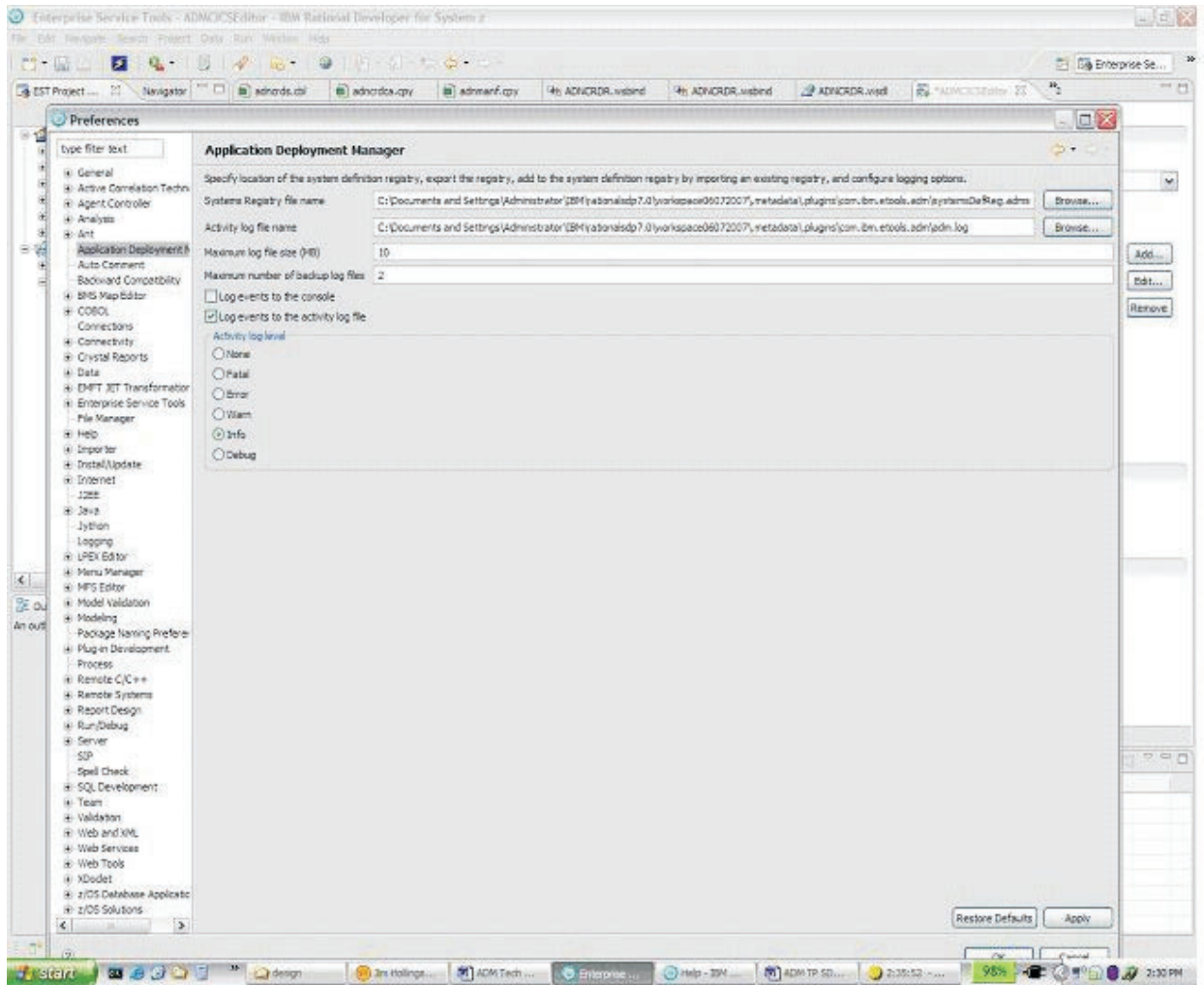


Figure 1. Application Deployment Manager Preferences

## Defining CICS primary connection regions

A CICS test environment may consist of several Multi-Region Option (MRO) connected regions. Over time, unofficial designations have been used to categorize these regions. Typical designations are terminal owning region (TOR), Web owning region (WOR), application owning region (AOR), and data owning region (DOR). A Web owning regions is used to implement CICS Web services support, and the Application Deployment Manager CICS Resource Definition (CRD) server must run in this region. This region is known to Application Deployment Manager as the CICS primary connection region. The Application Deployment Manager CICS Resource Definition (CRD) client implements a Web service connection to the CICS primary connection region. CICS primary connection region definitions must be configured by opening the Rational Developer for System z preferences page and selecting **Connections (Window->Preferences->Connections)**

The required information on the Connections preference page includes:

- **Connection**

- Type – For the CRD server region this must be set to *“Non CICSplex SM”*.
- Region name for the CRD server region
- **Location**
  - Server address (IP address)
  - Port
- **Authentication**
  - User ID – CICS region user ID
  - Password (encrypted when saved)
  - Save password – check if you wish Rational Developer for System z to save your password
- CRD server
  - Default primary connection region – Customers may have multiple CICS test environments each consisting of several regions. Each CICS test environment requires a CICS primary connection definition. However, only one of these definitions should be checked as the default CICS primary connection region which will be used by the Resource Definition editor to retrieve resource attribute default values and as the default target region where resources will be installed. When switching development to a different CICS test environment the default should also be changed.

**Note:** The above describes the *“Non CICSplex SM”* type required for the CRD server connection. This preference page is also used to define an additional connection to the CICSplex SM CMAS when CICS resource definitions are managed by CICSplex SM Business Application Services (BAS). In this case the type is set to *“CICSplex SM Data API”*.

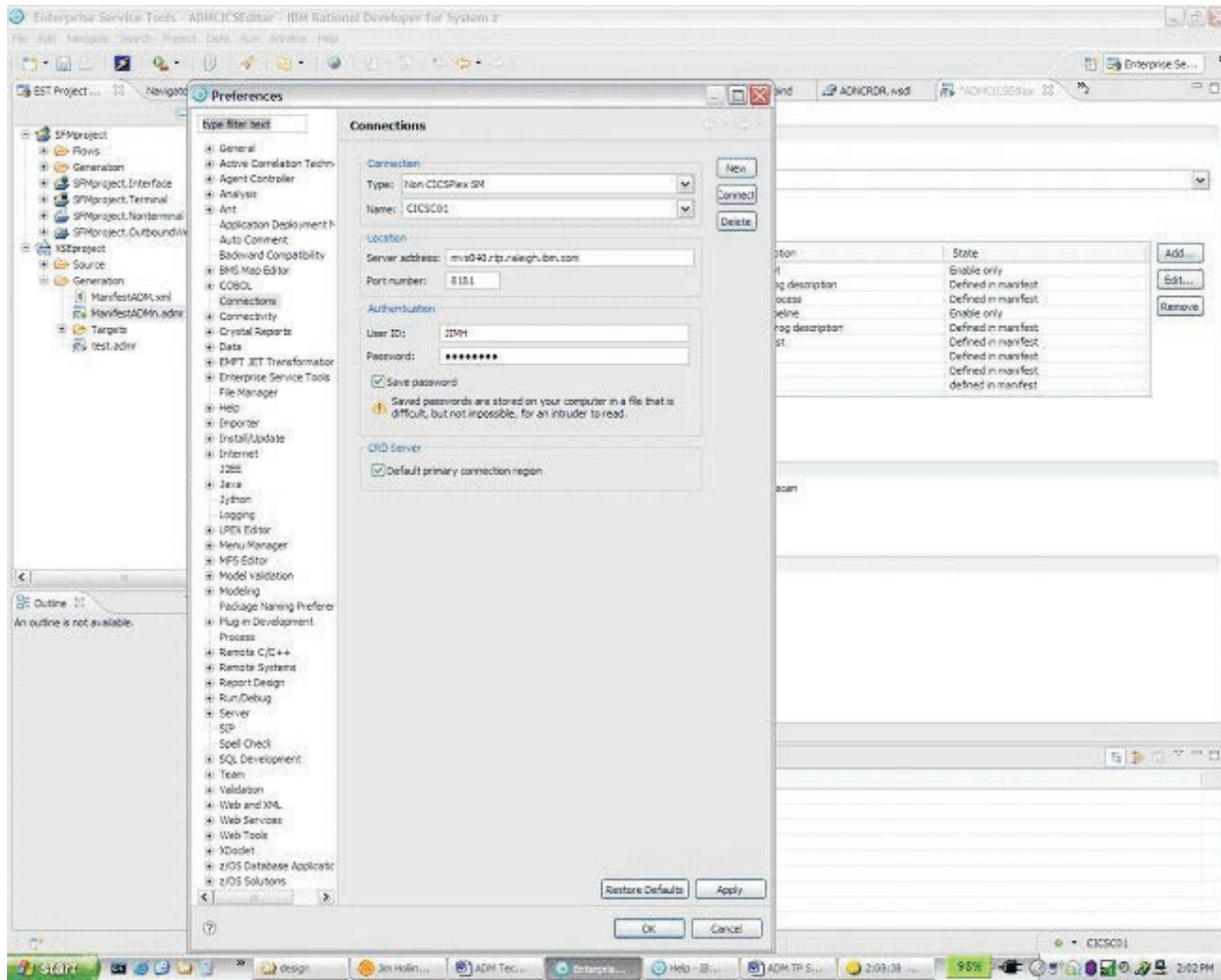


Figure 2. Defining CICS primary connection regions

## z/OS server customization

The Application Deployment Manager 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 Application Deployment Manager host component. However, certain customization might be necessary.

z/OS server customization is fully documented in the *Application Deployment Manager tech preview System Programmer User's Guide (SC23-8900-00)*.



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## Chapter 4. Manifest creation by single services generation and service flow projects

A manifest file is used to store CICS resource definitions for a project or sub-project. Single services generation and service flow projects components of the Enterprise Service Tools (EST) perspective create the manifest file during the project generation phase.

This section describes both single services generation and service flow projects scenarios for manifest creation.

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### Single services generation manifest creation

This Application Deployment Manager technology preview is the documentation for deployment of Enterprise Service Tools (EST) single service artifacts using Rational Developer for System z v7.1.1 with Application Deployment Manager technology preview installed.

#### Overview

Users of Rational Developer for System z can create new service interfaces from enterprise applications (bottom-up), map to an existing service interface (meet-in-the-middle) development, and create a Web service implementation for a Web service (top-down). The missing piece is the ability to deploy the EST generated artifacts. This is addressed for CICS runtime using Application Deployment Manager.

The Application Deployment Manager technology preview contains the ability to create manifest files which describe CICS Resource creation and manipulation actions as well as methods of submitting these actions to a host component.

#### Scope

**Host runtime:**

Web Services for CICS

**Development scenarios:**

Bottom-up and Top-down

**Conversion type:**

- For COBOL: Compiled XML conversion and Interpretive XML conversion.
- For PLI: Bottom-up Interpretive XML conversion only.

This is supported in the graphical user interface mode only through Enterprise Service Projects (no batch support).

#### Scenario

Generating web services run time code for a commarea program, and deploying them to a CICS region.

**User task:** To generate and deploy the web services run-time resource (wsbind file) from a COBOL/PLI program or a copybook/include file.

**Note:** Before carrying out the following scenario, ensure that you have a CICS connection defined (see Section "Defining CICS primary connection regions" for details).

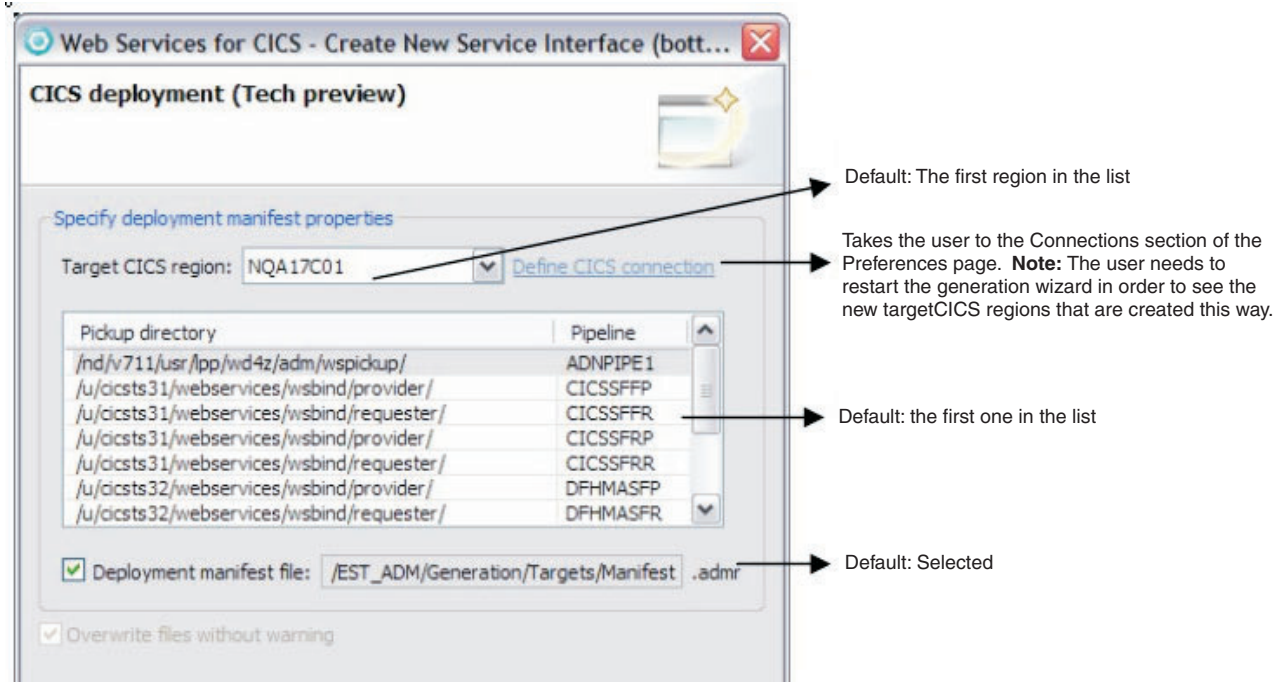
1. From the EST perspective, create a Web services for CICS project.
2. Import the COBOL/PLI program or a copybook/include file into the project.
3. Generate the run-time resources using the single services generation wizard, On the last page of the wizard "CICS Deployment (Tech Preview), specify the target CICS region, and the pickup directory where the wsbind file will go. Click **Finish** to complete the generation.
4. Open the generated manifest file (Manifest.admr) in the Resource Definition editor. You will find this file inside the Single Service project's Generation/Targets folder.
5. The generated WSBind file must have been transferred to the appropriate pipeline pickup directory.
6. Customize the resource definition for the generated resource if necessary. When finished, click **Install Definitions** to scan the pipeline scan immediately, or **Export Definitions** to export the manifest file for installation at a later time.

## Deploying the Web service files to CICS

To accomplish generation of the Application Deployment Manager CICS manifest file, we added the "CICS Deployment (Tech preview)" wizard page at the end of the generation wizard of all the supported scenarios (Bottom-up and Top-down) to capture the required information.

In order to add the capability to install the web service (that is, scan the pipeline) we would need to record the CICS Region and pipeline information in the CICS manifest file.





**Note:** In the case of regeneration, we preserve all previously selected choices.

Figure 3. Create new service interface

If the user chooses to generate the manifest file, the Resource Definition editor can be used to define/install/scan CICS resources.

### Precondition

To use the Resource Definition editor to install the CICS resources the user must have completed the project generation and build steps. For example, the generated WSBind file must have been transferred to the appropriate pipeline pickup directory, and any generated converter or application program must have been built.

Depending on the scenario, the generated programs (for example, vendor converter program, new application, etc) are defined in the manifest file, so that they can be defined and installed as CICS resources.

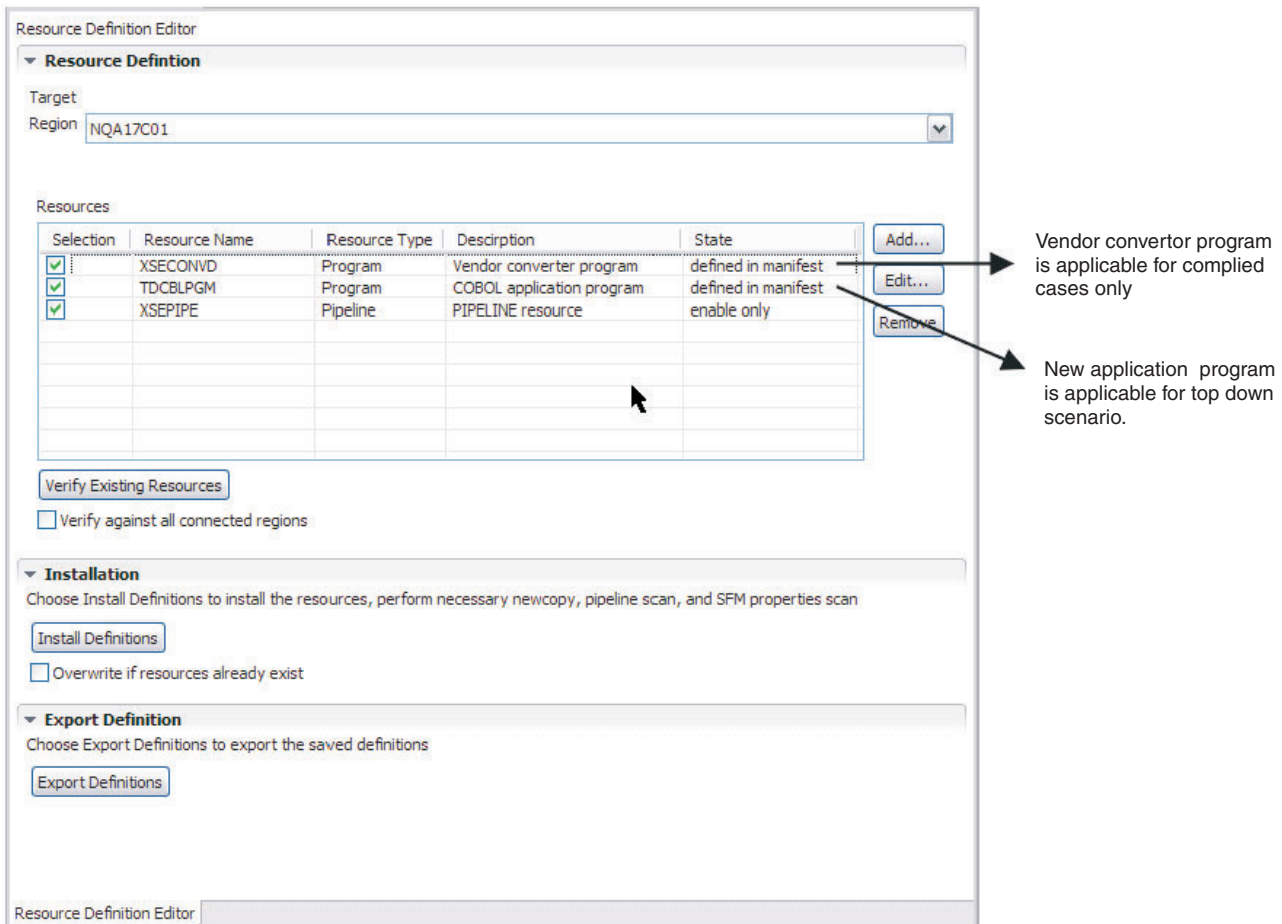


Figure 4. Resource Definition Editor

For more information on the Resource Definition editor and actions that can be performed on the manifest file, refer to Chapter 5, “Resource definition editor,” on page 19.

### Limitations

- Only applicable for Web Services for CICS runtime.
- This is not supported in batch mode.
- This is not supported for Meet in the middle scenario

## Service Flow Projects manifest creation

Users of Rational Developer for System z 7.1.1 with the Application Deployment Manager Technology Preview installed will observe the following changes to the Service Flow Project Generate Runtime Code Wizard:

Two new radio buttons are available on the third page of the **Generate Runtime Wizard** (this page can be reached only if the user selects the “**Generate to another location**” button on the first page of the wizard and the “**Generate to Remote Location**” button on the second page of the wizard). The two new radio buttons are “**Perform Actions Immediately**” and “**Save Actions to Manifest for Export Later**”.

If **'Perform actions immediately'** is selected (the default), the Generate Runtime Code Wizard will perform as usual, performing the requested CICS modifications at the end of the generation process.

If **'Save actions to manifest file for export later (Tech Preview)'** is selected, these actions will not be performed immediately. Instead a file named "CICSManifest.admr" is written to the local generation folder.

The "CICSManifest.admr" contains the CICS Program, Transaction, and ProcessTypes needed to run the service flow, as well as the WebService Pipeline and Service Flow Pipelines that need to be rescanned. The success or failure to create this manifest file is reported in the details section of the Success/Failure popup that appears after service flow project generation completes. Once the Generate Runtime Code Wizard completes running, you can open the "CICSManifest.admr" file in the Application Deployment Manager Resource Definition Editor and use the functionality within to edit the required CICS Resource Definitions, to rescan the web service and service flow pipelines, and to request a program new copy.

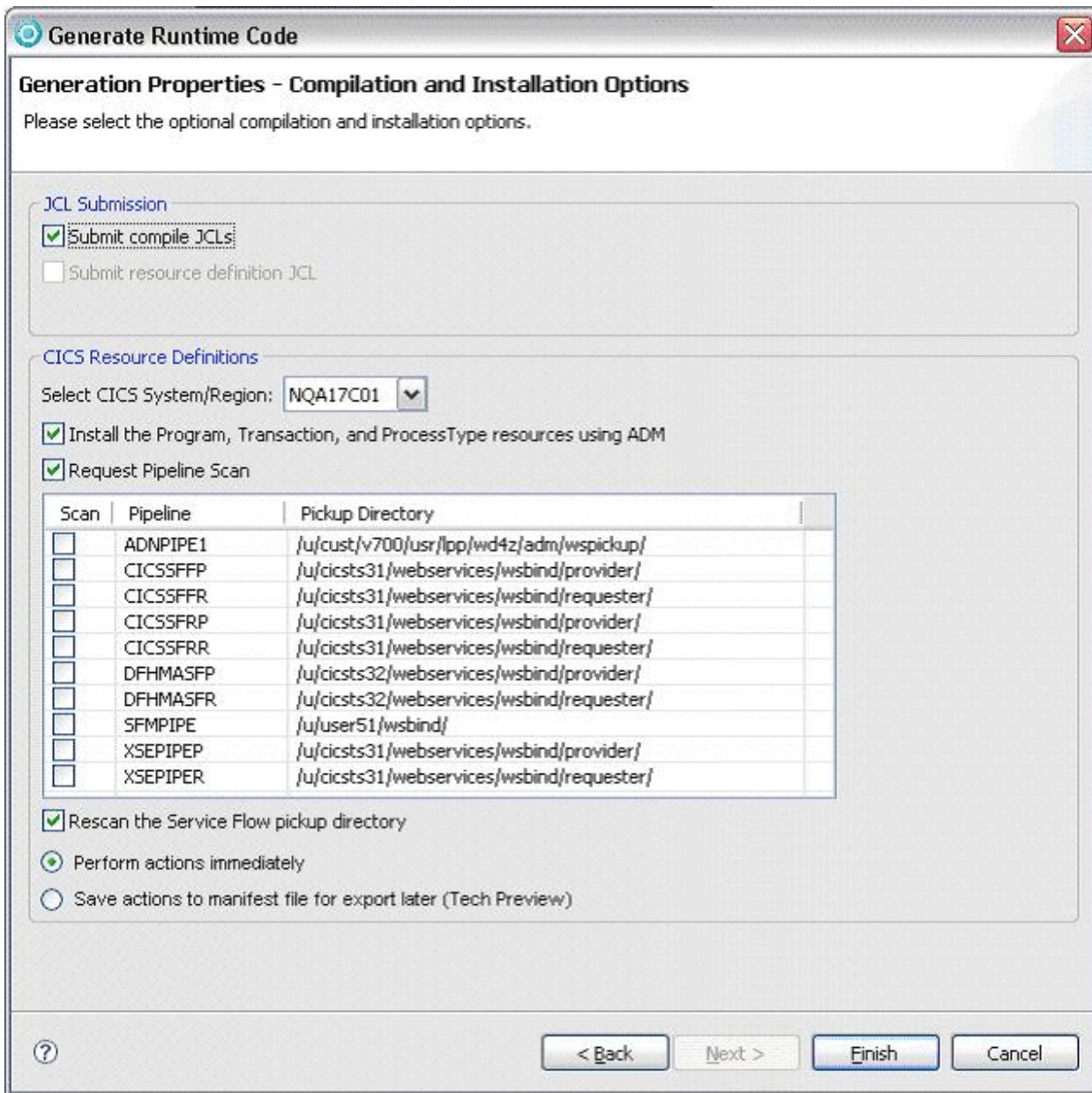


Figure 5. Generation Properties - Compilation and Installation Options

---

## Chapter 5. Resource definition editor

The Rational Developer for System z Resource Definition editor provides support for defining CICS resources.

Traditionally, the role of defining resources for CICS has been the domain of the CICS system programmer. There has been a reluctance to allow the application developer 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 Resource Definition 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 may 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 Resource Definition editor supports definition of CICS resources in CICS TS 3.1 and 3.2 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 can be re-installed by right clicking the manifest file and selecting **Manage CICS Resource**, and selecting **Re-install**.

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 Application Deployment Manager uses a Web service to connect to a CICS TS 3.1 or 3.2 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 or 3.2 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 or 3.2 region running the CRD server is managed by CICSplex<sup>®</sup> 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.

---

## Launching the Resource Definition editor

There are two ways to launch the Resource Definition editor from within the Enterprise Service Tools (EST) perspective.

- Double click on a manifest file. A manifest file has an `.admr` extension.

or

- Right click on a manifest file, select **Manage CICS Resource**, select **Define and Install**.

**Note:** During iterative development manifest resources are typically defined and installed during the first iteration. During subsequent iterations the resource definitions do not need to be re-installed. However, updates to programs, Web service definitions (WSBind files), or Service Flow Projects flow properties may require that programs be refreshed, CICS pipelines be scanned, or that the Service Flow repository file be scanned. This can be accomplished by right clicking the manifest file, selecting **Manage CICS Resource**, and selecting **Rescan and Newcopy**.

**Note:** CICS resources installed by the CRD server on CICS systems where resources are not managed by CICSplex SM BAS use the CICS CREATE SPI command. Resources installed in this way do NOT survive a CICS cold start. Normally, CICS is warm-started. However, if CICS is cold started these resources will need to be reinstalled. This can be accomplished by right clicking the manifest file, selecting **Manage CICS Resource**, and selecting **Re-install**.

---

## Using the Resource Definition editor

The application developer uses the Resource Definition editor to define and install CICS resource definitions.

Figure 6 shows the Resource Definition editor listing the resources contained in the manifest file.

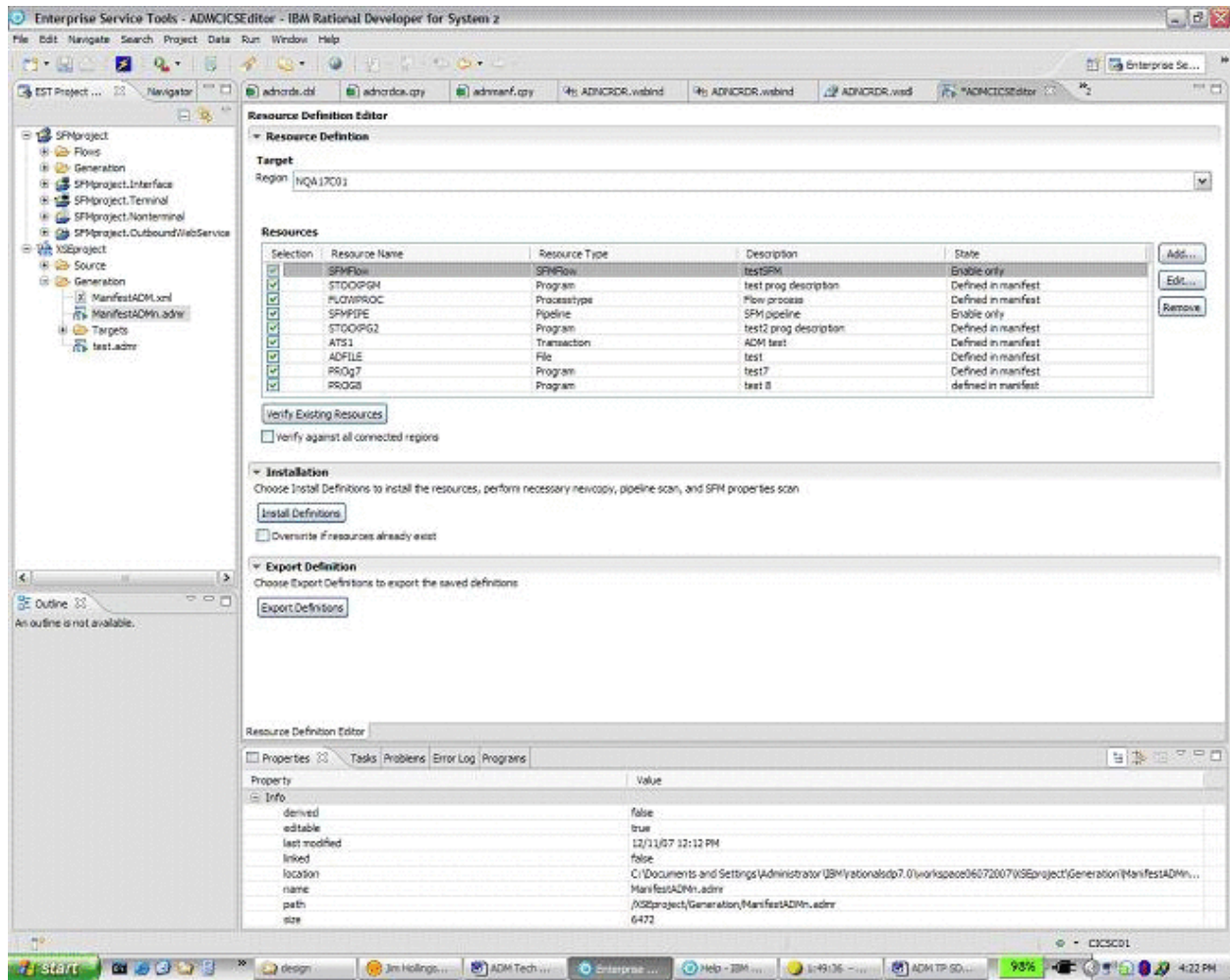


Figure 6. Resource Definition Editor

## Resource Definition editor main panel

The Resource Definition editor main panel contains four sections.

### Target section

When the Resource Definition editor is initially launched, a Web service request is issued to the CRD server to return a list of active regions in the test environment, the CICS TS level (CICS TS 3.1, CICS TS 3.2, etc.), manifest export rule, staging group name, and the CICSplex SM installed indicator.

The Resource Definition editor main panel contains a text box for the default target region, and if the manifest contains a default target region it is used to populate the target region textbox. Otherwise, the default target region is taken from the entry in the internal list of primary connection regions that was checked as the default when the connection was defined.

The target region dropdown list will show a primary connection region and all Multi-Region Option (MRO) connected regions. The first entry in the list is the primary connection region definition that was checked as the default on the Connections preference page.

If CICSplex SM BAS is used to manage CICS resources a group textbox is also displayed.

If an existing manifest contains a default group, it is used to populate the group textbox. Otherwise it is blank.

The group dropdown list is populated by the Web service request for the staging group name if one was supplied by the system programmer. If the target region is changed the group textbox will display “no group selected”. This is a valid selection if the developer does not wish to associate a group with the project resource definitions.

## Resources section

The resources section lists the resources in the manifest file. Resource selection, name, type, description, and state are displayed.

Checking the **selection** checkbox for a resource indicates that it should be installed and enabled. It is checked by default. For those resources that have a state of enable only it is checked, but grayed out since enable only resources cannot be installed. Un-checking this box allows a user to defer define/install of a resource in CICS, without actually deleting it from the manifest file.

The following CICS resource definitions are supported by the Resource Definition editor and may be added, edited, or removed from the manifest file. These resources defined in the manifest may then be installed into a running CICS region. A Mapset and Program resource may be “enabled” by the CRD server which issues a CICS Set Phasein SPI command.

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

In addition the following resources may be added or removed from the manifest. They will have an enable only state. Therefore, their attributes may not be edited and they cannot be installed. Enable actions are as follows:

- Pipeline – Can be scanned to process new or updated WSBind files that support Web services.
- Service Flow Repository file – Can be scanned to process new or updated Service Flow properties.

Resources may have states of “*defer install*”, “*defined in manifest*”, “*edited*”, “*CICS install error*”, “*CICS install successfully*”, “*enable only*”, or “*existing name in CICS*”.



At any time the user may click the **Verify existing resources** button that will check for resources in the target region by the same name and resource type. Only those resources with a state listed as *defined in manifest* or *CICS install error* will be checked. If an existing resource of the same name and resource type is found, the state will change to *existing name in CICS*.

If the **Verify against all connected regions** checkbox is checked the primary connection region and all active MRO connected regions are checked.

## Installation section

This section appears only if the Export manifest rule is set to *install only* or *either*. The *Export manifest rule* is set by the system programmer and is a global setting for the CICS test environment.

Clicking the **Install Definitions** button causes Application Deployment Manager to issue Web service requests to the CRD server to install all installable resources and enable *enable only* resources.

The **Overwrite if resources already exist** checkbox is used to select the install action for resources with a name conflict. By default this checkbox is not selected. There are two reasons why a user might choose to overwrite.

- A user may wish to re-install a resource that was previously installed from this manifest and then edited later. Editing causes the resource state to be reset to *defined in manifest*.
- A user may wish to overwrite a resource previously installed by a system programmer or by another developer. *Care should be taken for this case*.

Resource install errors are reported in the project problem area view. Double clicking on an error in the problem area will launch the Resource Definition editor and launch the edit dialog for the resource in error. Specific attribute errors are indicated by editing the resource in error. An attribute in error will display with a red X to the right of the attribute value.

## Export section

This section appears only if the *Export manifest rule* is set to *export only* or *either*. The *Export manifest rule* is set by the system programmer and is a global setting for the CICS test environment.

Clicking the **Export Definitions** button causes Application Deployment Manager to issue a Web service that exports the manifest file to the CRD server. There it may be subsequently processed (validated/edited and installed) by the system programmer using the Manifest Processing tool.

---

## Working with resources

A user may add, edit, or remove resources from the resource manifest.

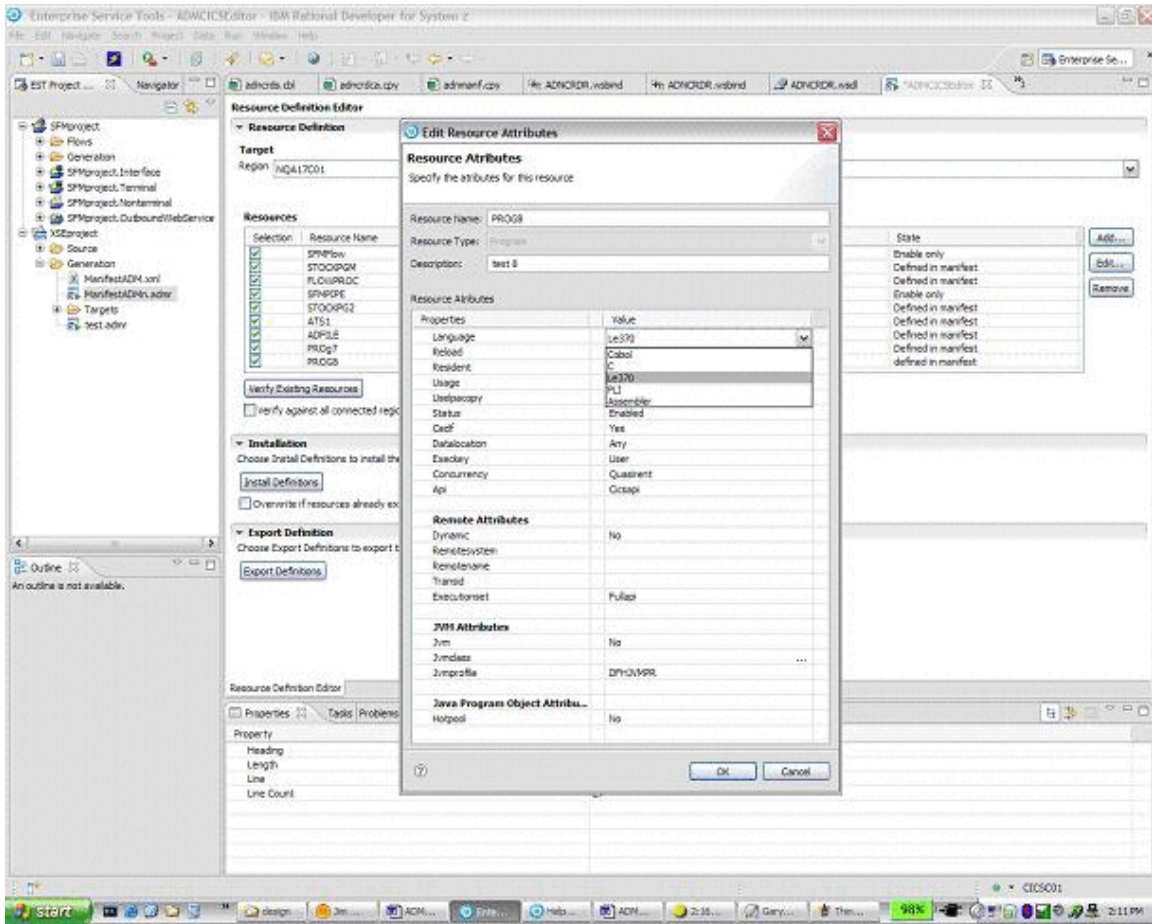


Figure 7. Editing a program resource definition

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

## Add CICS resource definitions to a manifest

CICS resource definitions may be added to a manifest either automatically by another Rational Developer for System z component during project generation, or by the user by clicking the **Add** button next to the manifest resource list. The **Add Resource** dialog appears that prompts the user for *resource name*, *resource type*, and *resource description*. Selecting *resource type* causes the CICS resource definition attribute default values to be retrieved from the default CICS primary connection region.

The resource attribute values may then be edited. Clicking **OK** saves the resource definition in the manifest.

CICS resource parameter values are governed by rules as specified in the *CICS Resource Definition Guide (SC34-6815)*.

## Edit a CICS resource definition

CICS resource definitions may be edited by selecting a resource in the manifest and clicking the **Edit** button. The *Edit Resource* dialog appears that allows the user to edit the resource attribute values. Clicking **OK** saves the resource definition in the manifest.

## Remove a CICS resource definition from the manifest

CICS resource definitions may be removed from the manifest by selecting a resource in the manifest and clicking the **Remove** button.

**Note:** CICS Interactive is still required to uninstall a resource from CICS.

## CICS Interactive function:

For the Application Deployment Manager technology preview all CICS Interactive function is retained. However, its use is discouraged except for the following functions:

### 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 Service Flow Projects USS deployment panel and the Service Flow Projects 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 Service Flow Projects 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.

### 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 6. CICS TS Explorer

CICS TS Explorer provides an Eclipse based infrastructure to view and manage CICS resources and enables greater integration between CICS tools.

The CICS TS Explorer may be launched in its own perspective, or CICS TS Explorer views may be launched from within other perspectives (i.e. EST perspective). A tree view displays CICS region names. Individual resource views (i.e. transaction, program, file, etc.) are grouped together in tab groups.

Defining a connection to a CICS system is a prerequisite to using the CICS TS Explorer. (refer to “Defining CICS primary connection regions” on page 9)

---

### CICSplex SM views

Each perspective contains one or more views. A view is a visual component in the workbench, and provides a way to navigate the information in your workbench. Views displaying similar information are grouped together into *tab groups*.

In the example perspective shown in Figure 8 on page 28, nine views are displayed, arranged in four tab groups.

Tab group1 contains the *tree* views, CICSplex Explorer and Groups.

Tab group2 contains the *tabular* views, Connections, DB2 Transactions, Document Templates, Files, Library DS Name, RPL List, Pipelines, Processtypes, Programs, Regions, Tasks, TD Queues, TS Queues, Transactions, and Terminals..

Tab group 3 contains the *tabular* views Properties and Events.

Tab group 4 contains the dynamic Help view.

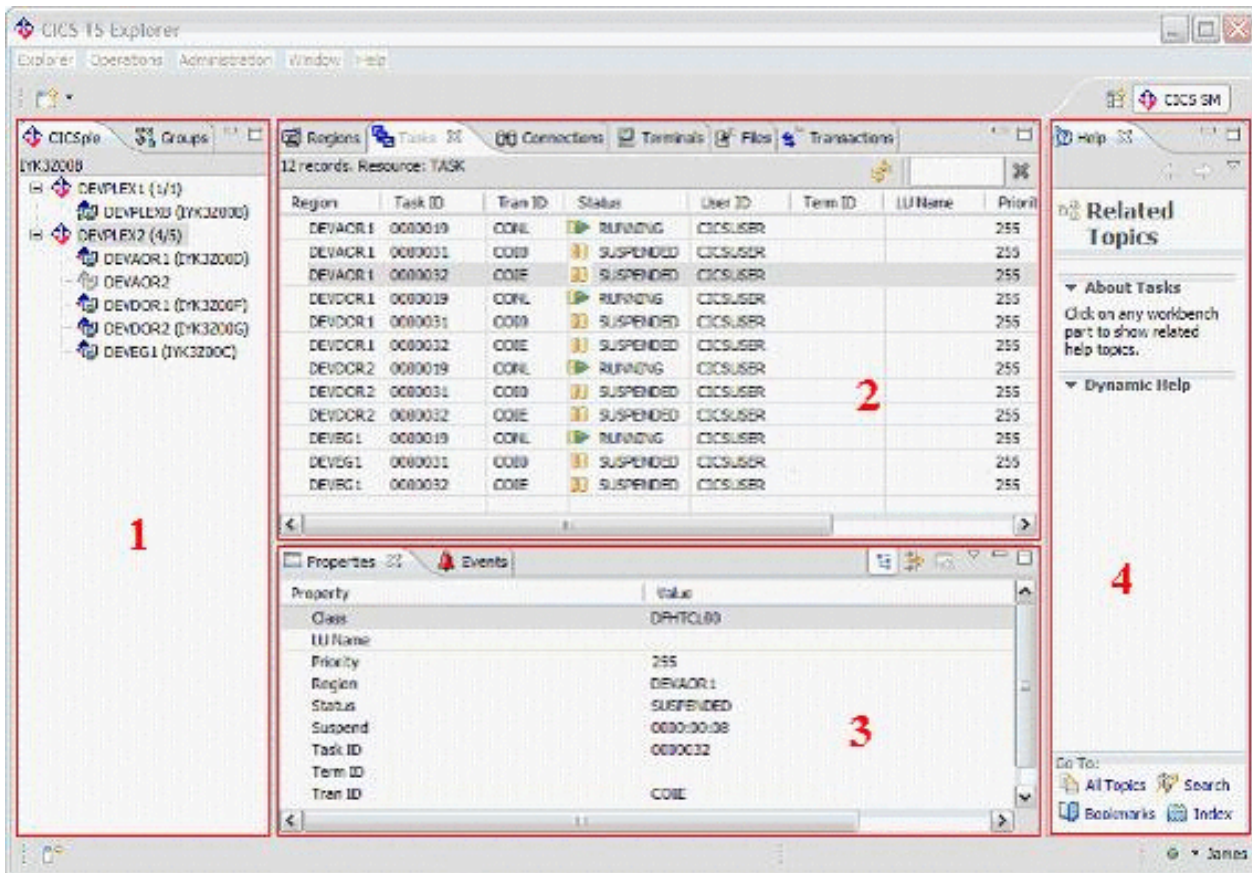


Figure 8. CICS TS Explorer

Each view has a title which is displayed in a tab at the top of the view. Where multiple views are present in a view set, they are stacked one behind the other. To activate a view, click its tab to bring the view to the front of the stack.

All views, with the exception of the CICSplex Explorer view, can be removed from view, or moved to a different tab group, and each tab group can be sized or repositioned in the workbench. The CICSplex Explorer view is a special view that you cannot remove or move.

You can restore the default tab group arrangement (perspective) at any time by clicking **Window > Reset Perspective** from the main workbench menu bar.

Additional CICS TS Explorer information can be found in the Rational Developer for System z product help contents by clicking **Help**, selecting **Help Contents**, and selecting **CICS TS Explorer**.

## Non CICSplex SM views

Application Deployment Manager extends CICS TS Explorer by providing support for the tabular resource views for CICS resources not defined using CICSplex SM. However, these tabular views are limited by resource type and the available columns within the view. Supported tabular views are DB2 Transactions, Document Templates, Files, RPL List, Pipelines, Process Types, Programs, Regions, TD Queues, and Transactions.

---

## Chapter 7. Messages

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

All Application Deployment Manager messages are of the format *WZADnnnnL*, where *WZAD* is the Application Deployment Manager 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 Application Deployment Manager has been successfully activated.**

**Explanation:** The Application Deployment Manager 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 TCPIPService 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 Application Deployment Manager 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.

---

---

**WZAD1449W CRD Reason code: Same module size after newcopy**

**Explanation:** A request to newcopy a program or mapset was performed, but the new load module size is the same as the old load module size.

**User response:** Check that the updated program source was compiled and linked to the correct load library. The load module size may be the same and is common when only modifying a single instruction.

---

**WZAD1450E CRD Reason code: The CICS release level does not support the request.**

**Explanation:** Certain requests require function not supported in all levels of CICS.

**User response:** None.

---

**WZAD1451E CRD Reason code: Inquire library start failure, <resp>.**

**Explanation:** An Inquire Library Start Browse command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1452E CRD Reason code: Inquire library next failure, <resp>.**

**Explanation:** An Inquire Library Next command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1453E CRD Reason code: Inquire library end failure, <resp>.**

**Explanation:** An Inquire Library End Browse command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1454E CRD Reason code: Program abend <abend code>**

**Explanation:** The CRD server has abended.

**User response:** Contact support and refer to the handle abend code returned with the message.

---

**WZAD1455E CRD Reason code: Program link error, <resp>.**

**Explanation:** A Program Link command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1456E CRD Reason code: Inquire resource start failure, <resp>.**

**Explanation:** An Inquire resource Start Browse command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1457E CRD Reason code: Inquire resource next failure, <resp>.**

**Explanation:** Use the accompanying CICS response code to determine the cause. An Inquire resource Next command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

---

**WZAD1458E CRD Reason code: Inquire resource end failure, <resp>.**

**Explanation:** An Inquire resource End Browse command failed. Retry the operation. If the condition persists contact support.

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

---

**WZAD1459E CRD Reason code: Read manifest repository file error, <resp>.**

**Explanation:** An attempt to read the manifest repository failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. Use the accompanying CICS response codes to determine the cause.

---

**WZAD1460E CRD Reason code: Write manifest repository file error, <resp>.**

**Explanation:** An attempt to write to the manifest repository failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. Use the accompanying CICS response codes to determine the cause.

---

**WZAD1461E CRD Reason code: Rewrite manifest repository file error, <resp>.**

**Explanation:** An attempt to rewrite to the manifest repository failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. Use the accompanying CICS response codes to determine the cause.

---

**WZAD1462E CRD Reason code: Inquire manifest repository start failure, <resp>.**

**Explanation:** An Inquire resource Start Browse command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1463E CRD Reason code: Inquire manifest repository next failure, <resp>.**

**Explanation:** An Inquire File Next command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1464E CRD Reason code: Inquire manifest repository prev failure, <resp>.**

**Explanation:** An Inquire File Prev command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1465E CRD Reason code: Inquire manifest repository end failure, <resp>.**

**Explanation:** An Inquire File End Browse command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

**WZAD1466E CRD Reason code: Delete manifest repository failure, <resp>.**

**Explanation:** A Delete File command failed.

**User response:** Use the accompanying CICS response code to determine the cause. Retry the operation. If the condition persists contact support.

---

---

**WZAD1467W CRD Reason code: Manifest checked out by developer <user ID>**

**Explanation:** A retrieve request was issued for a manifest but it was checked out by a developer.

**User response:** Request that the developer export the checked out manifest back to the repository and retry the operation.

---

**WZAD1468W CRD Reason code: Manifest checked out by system programmer <user ID>**

**Explanation:** A retrieve request was issued for a manifest but it was checked out by a system programmer.

**User response:** Request that the system programmer complete processing on the checked out manifest in order to check it back in to the repository, and retry the operation.

---

**WZAD1469W CRD Reason code: Manifest checked out by another system programmer <user ID>**

**Explanation:** A retrieve request was issued for a manifest but it was checked out by another system programmer.

**User response:** Request that the system programmer complete processing on the checked out manifest in order to check it back in to the repository, and retry the operation.

---

## **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**

---

## **Resource Definition editor messages**

The following messages are issued by the Resource Definition editor.

---

**WZAD1600W <resourceName>(<resourceType>) was found already installed on <region>, a phasein will be issued.**

**Explanation:** The named resource was already installed in the CICS region and will not be re-installed. However, a phasein (newcopy) will be issued to refresh the load module.

The refresh is to occur whether or not the module is in use. If it is, the copy or copies in use remain until they are no longer in use, but all requests that occur after the refresh use the new copy.

This message can be issued for a Program or Mapset. They are the only resources that Application Deployment Manager installs that can also be phased in.

**User response:** Check possible mismatch between the resource definition in the manifest and the installed resource definition.

---

**WZAD1601I <resourceName>(<resourceType>) does not have a naming conflict on <region>**

**Explanation:** The named resource was not found to be installed in the CICS region. It is issued when checking for naming conflicts. This message can be issued for a DB2Tran, Doctemplate, File, Mapset, Processtype, Program, TD Queue, or Transaction.

**User response:** None.

---

**WZAD1602W <resourceName>(<resourceType>) cannot be <action> because it does not exist on <region>**

**Explanation:** The named resource could not be found in the CICS region. Therefore the action cannot be performed. For a phasein action this message can be issued for a Program or Mapset.

For a scan action this message can be issued for a Pipeline or Service Flow Repository file.

**User response:** Check that the correct resource name was specified in the manifest.

---

**WZAD1603I <resourceName>(<resourceType>) was successfully installed on <region>**

**Explanation:** The named resource was successfully installed in the CICS region.

This message can be issued for a DB2Tran, Doctemplate, File, Processtype, TD Queue, or Transaction.

Message WZAD1608I is issued for a Program or Mapset because they can be phased in.

**User response:** None.

---

**WZAD1604W <resourceName>(<resourceType>) was not successfully installed on <region>**

**Explanation:** The errors were encountered attempting to install the named resource in the CICS region.

This message can be issued for a DB2Tran, Doctemplate, File, Mapset, Processtype, Program, TD Queue, or Transaction.

**User response:** Double clicking this message in the problem area will open the Resource Definition editor for the named resource where offending resource attributes are flagged.

---

**WZAD1605I <resourceName>(<resourceType>) was successful at performing a <action> on <region>**

**Explanation:** The specified action was successfully performed for the named resource in the CICS region. For a phasein action this message can be issued for a Program or Mapset.

For a scan action this message can be issued for a Pipeline or Service Flow Repository file.

**User response:** None.

---

**WZAD1606W <resourceName>(<resourceType>) encountered errors during <action> on <region>**

**Explanation:** The errors were encountered attempting to perform the specified action on the named resource in the CICS region.

For a phasein action this message can be issued for a Program or Mapset.

For a scan action this message can be issued for a Pipeline or Service Flow Repository file.

**User response:** Check any associated messages to determine the problem.

---

**WZAD1607W <resourceName>(<resourceType>) was found already installed on <region>**

**Explanation:** The named resource was already installed in the CICS region and will not be re-installed. This message can be issued for a DB2Tran, Doctemplate, File, Processtype, TD Queue, or Transaction. Message WZAD1600W is issued for a Program or Mapset because they can be phased in.

**User response:** Check possible mismatch between the resource definition in the manifest and the installed resource definition.

---

**WZAD1608I** <resourceName>( <resourceType>) was successfully installed on <region>, a phasein will be issued.

**Explanation:** The named resource was successfully installed in the CICS region. This message can be issued for a Mapset or Program.

**User response:** None.

---

**WZAD1609I** Manifest <manifest file name> was successfully exported to <region>

**Explanation:** The named manifest was successfully exported to the CICS region.

**User response:** None.

---

## 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 Application Deployment Manager and has not been modified by a process outside of Application Deployment Manager.

---

**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 Application Deployment Manager 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 Application Deployment Manager 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 Application Deployment Manager framework are operational. If they are, contact support and provide this log.

---



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