Configuring IBM Tivoli OMEGAMON XE for CICS on z/OS

Version 3.1.0
Configuring IBM Tivoli OMEGAMON XE for CICS on z/OS
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IBM® Tivoli® OMEGAMON® Extended Edition (XE) for CICS® on z/OS is a remote monitoring agent that resides on z/OS® managed systems. It assists you in anticipating trouble and warns you when critical events take place on your systems. With IBM Tivoli OMEGAMON XE for CICS on z/OS, you can set threshold levels and flags as desired to alert you when the system reaches these thresholds.

Using IBM Tivoli OMEGAMON XE for CICS on z/OS provides an overview of the CandleNet Portal®, a description of a number of user scenarios, and a complete reference section. The reference section includes all the attributes, situations, workspaces, and messages for this product.

Who should read this guide

The primary audience for this book is the z/OS systems programmer or analyst who is responsible for ensuring CICS availability. This person’s responsibilities include:

• Planning for and overseeing product installation
• Troubleshooting system and performance problems
• Analyzing performance data for problem determination
• Providing historical performance data for trend analysis

Users of this book should be familiar with the following topics:

• The z/OS operating system and its associated concepts
• CICS Transaction Server
• Database administration concepts
• Performance monitoring concepts

Transition from Candle to IBM

IBM recently acquired Candle® Corporation. The transition of Candle ordering and service processes is complete. As you will see in this publication, this release is part of a transition phase of this acquisition. Many changes have been made to this product and its publications to deliver it as an IBM product.

You will notice that much of the Candle terminology and component names used to describe the OMEGAMON products remain unchanged. However, in some cases, the product release number has been modified. For example, the version of CandleNet Portal required by this release is version 196. Publications that have been modified, such as IBM Tivoli OMEGAMON Platform: Installing and Setting up OMEGAMON Platform and CandleNet Portal on Windows and UNIX include the new version 196 release number on the cover. Publications that have not been modified, such as IBM Tivoli OMEGAMON Platform: Administering OMEGAMON Products: CandleNet Portal Version 195 and IBM Tivoli OMEGAMON Platform: Using OMEGAMON Products: CandleNet Portal Version 195 continue to carry the previous version 195 release number. Note that the information provided in these books is still valid for version 196. For a definitive list of the OMEGAMON platform books used with this product release, see "OMEGAMON XE platform publications" on page xviii.

Candle products have new IBM names, and during this transition period, some publications use the old names while others use the new names. For example,

If you are an IBM customer new to Candle products, you should know that OMEGAMON is an established name in the systems management environment with a long and respected history. In discussions of OMEGAMON, you might see or hear these terms:

- **OMEGAMON Classic** refers to the original 3270-based products that have evolved since the 1970s. This is also known as the "Menu system" and the "Common Interface".

- **OMEGAMON II** is an implementation of the IBM Common User Access® (CUA®) interface of the late 1980s. This generation of OMEGAMON products collects information from one or more monitored systems and displays it on a single 3270-based, CUA-compliant mainframe screen.

- **OMEGAMON XE**, the Extended Edition, is the current OMEGAMON family of products, used for monitoring most operating systems, subsystems, applications, storage, and networks, through the use of a Java-based graphical interface. This interface also gives you workflow policies to define and run complex automation scenarios and lets you combine data from different agents in a single workspace.

- **IBM Tivoli OMEGAMON Desktop Edition (DE) on z/OS** is a package of components that provide an integrated view of your mainframe enterprise and the power to take corrective action when problems threaten system and application availability. The components in the package include OMEGAVIEW and OMEGAVIEW II® for the Enterprise.

This book is an introduction to the OMEGAMON XE zSeries products in general, and to the IBM Tivoli OMEGAMON XE for CICS on z/OS product in particular.

### What’s new in this release

With this release, IBM Tivoli OMEGAMON XE for CICS on z/OS acquires a lot of the new data using the EXEC CICS INQUIRE or CEMT INQUIRE commands. This applies to the following workspaces:

- Dispatcher Summary, Dispatcher Task Control Block (TCB) Mode, and Dispatcher TCB Pool.
- Dump Details.
- Java™ Program Analysis.
- JVM Analysis, JVM Classcache Analysis, JVM Pool Statistics, and JVM Profile Statistics.
- MVS™ TCB Summary and MVS TCB Details.
- Pagepool Summary and Pagepool Details.
- TCP/IP Service Statistics and TCP/IP Statistics.

This release supersedes OMEGAMON XE for CICSpex version 220.

**Detailed task and transaction information now provided.**

A wide range of statistics are now accessible from the Transaction Analysis workspace. This allows you to examine in detail, each task that is running in your CICS regions. For example, you can now select a task and find how its elapsed time is distributed between CPU use and waiting for resources. You can also examine the details of transaction and program definitions and determine those areas that need modification.
Dispatcher and Transaction manager.
With the increase in the number of Task Control Blocks (TCB) that CICS is using. These statistics enable you to determine the level of activity within those blocks.

Comprehensive file statistics.
From the File Control Analysis workspace, you can now access information about the various file types, for example, Journals, Logs, and Data Tables. New workspaces have been included to show further details and statistics related to file control.

Dump details
Dump details have been grouped to separate system and transaction dumps.

Pagepool and subpool details.
The Pagepool details and summary workspaces describe the use that CICS is making of virtual storage. This information includes details of each DSA usage, free storage, high-water marks, largest free area, the number of storage violations, and SOS occurrences. Many of these figures are provided in bytes, kilobytes (KB) and megabytes (MB). As with all the table views, you can customize the tables to move and remove columns to provide a unique table view.

Java Programs.
This supplies all the data available about the Java programs in use in your CICS regions. The JVM analysis workspace includes data about the age since the JVM was initialized, the reusability and the phasing out status of the JVM. There are three other workspaces that give details of the classcache, the JVM pool and profiles for each of your CICS regions.

TCP/IP reporting.
Both TCP/IP Service Statistics and TCP/IP have been added for you to monitor those connections. These have become more critical for businesses with their increasing reliance on web sites.

Service Task details
Although this does not provide any information about CICS, it supplies useful diagnostics to understand why those workspaces that collect their data through the EXEC CICS and CEMT INQUIRE commands may have failed. From this workspace you can determine whether the OMEG INIT transaction has started not. If it has not started those attribute groups will not collect any data.

Expanded Temporary Storage data
From the navigation tree you can access details about main, auxiliary and shared Temporary Storage.

AID and ICE workspaces
Both the Automatic Initiate Descriptor (AID) and the Interval Control Element (ICE) workspaces have been added to the XE version. From the Take Action panel it is possible to purge an AID or an ICE.

On-line data viewing.
This collects task historical data and can be used to analyze the transaction response time.

CEKL FORCE/FORCEPURGE
From the Take Action interface you can use CEKL FORCE/FORCEPURGE to remove a task.
Information delivery

The information for Tivoli OMEGAMON XE for CICS on z/OS is provided in two formats: HTML and PDF. It is delivered as an information center that contains links to both the HTML and the PDFs through a navigation tree. The information center uses the IBM Eclipse Help System. This allows you to add your unique groups of product documentation as they become available in this format.

The latest documentation is available at the following web site:


With this product you will receive a publications CD that you can use directly or copy the files to your hard drive.

All publications for this and all other Tivoli products are updated on the Tivoli software information center Web site. Access the Tivoli software information center by first going to the Tivoli software library at the following Web address:

http://publib.boulder.ibm.com/tividd/tdprodlst.html

Scroll down and click the Product manuals link to access the Tivoli software information center.

Publications

This section lists publications in the IBM Tivoli OMEGAMON XE for CICS on z/OS product, the Tivoli OMEGAMON II for CICS on z/OS component, and the OMEGAMON XE platform libraries. It also describes how to access Tivoli publications online and how to order publications.

IBM Tivoli OMEGAMON XE for CICS on z/OS library

The following publications are included in the IBM Tivoli OMEGAMON XE for CICS on z/OS library:

- **IBM Tivoli OMEGAMON XE for CICS on z/OS: Getting Started, GC32-9422-00**
  Provides planning information for installing IBM Tivoli OMEGAMON XE for CICS on z/OS and information about the OMEGAMON XE zSeries products.

- **Configuring IBM Tivoli OMEGAMON XE for CICS on z/OS, SC32-9423-00** (this book)
  Documents the installation and configuration tasks necessary for the implementation of IBM Tivoli OMEGAMON XE for CICS on z/OS. This document is written for system administrators and others who are responsible for installing and configuring IBM Tivoli OMEGAMON XE for CICS on z/OS.

- **Using IBM Tivoli OMEGAMON XE for CICS on z/OS, SC32-9424-00**
  Introduces the features, workspaces, attributes, and predefined situations for the IBM Tivoli OMEGAMON XE for CICS on z/OS product and supplements the user assistance provided with this product. This document is written for system operators.

- **IBM Tivoli OMEGAMON XE for CICS on z/OS: Release Notes, GI11-4086-00**
  Contains information about the Tivoli OMEGAMON XE for CICS on z/OS platform version 360 as well as information about the IBM Tivoli OMEGAMON XE for CICS on z/OS product’s issues, limitation and workarounds. There is also an
information map between new and old locations for information from previous versions of the product library and between old product names and new product names.

- **IBM Tivoli OMEGAMON XE Platform: Candle Messages Manual Volume 1 (AOP-ETX), SC32-9216**
- **IBM Tivoli OMEGAMON XE Platform: Candle Messages Manual Volume 2 (EU-KLVM), SC32-9217**
- **IBM Tivoli OMEGAMON XE Platform: Candle Messages Manual Volume 3 (KLVHS-KONCT), SC32-9218**
- **IBM Tivoli OMEGAMON XE Platform: Candle Messages Manual Volume 4 (ODC-VEB and Appendixes), SC32-9220**

These books contain the messages for most IBM Tivoli Candle products organized alphabetically by prefix.

**Tivoli OMEGAMON II for CICS on z/OS library**

The following publications are in the Tivoli OMEGAMON II for CICS on z/OS library:

- **IBM Tivoli OMEGAMON II for CICS Configuration and Customization Guide, GC32-9242**
  Documents the configuration and customization tasks necessary for the implementation of the Tivoli OMEGAMON II for CICS on z/OS product. This document is written for system administrators and others who are responsible for installing and configuring Tivoli OMEGAMON II for CICS on z/OS.

- **IBM Tivoli OMEGAMON II for CICS User's Guide, GC32-9249-00**
  Provides information about using the Tivoli OMEGAMON II for CICS on z/OS Common User Access CUA interface to monitor your CICS system. The document is written for personnel who are responsible for monitoring CICS performance, system programmers, and performance analysts, and application programmers who wish to monitor their programs.

- **IBM Tivoli OMEGAMON II for CICS Reference Vol 1, GC32-9246**
  You should use this book in conjunction with volume 2 if you need to understand how to use the CUA interface and menu system of Tivoli OMEGAMON II for CICS on z/OS to access the data you need to analyze CICS performance problems, create profiles, and define groups for monitoring purpose. Volume 1 provides information about the CUA interface.

- **IBM Tivoli OMEGAMON II for CICS Reference Vol 2, GC32-9247**
  You should use this book if you need to understand how to use the CUA interface and menu system of Tivoli OMEGAMON II for CICS on z/OS to access the data you need to analyze CICS performance problems, create profiles, and define groups for monitoring purpose. Volume 2 provides information about the menu system interface.

- **IBM Tivoli OMEGAMON II for CICS History Reporting Guide, GC32-9243**
  This book discusses the Tivoli OMEGAMON II for CICS on z/OS historical reporting feature and describes the numerous reports that you can obtain. It explains how to produce reports and provides examples, such as Response time reports, transaction reports, terminal reports, User ID reports, file reports, database reports, program reports, and system reports. It covers the use of SAS historical reporting, user-defined exits, an internal macros and programs.

Provides a description of ETE™, an explanation of how to start ETE after installation and customization have been completed, and a description of each ETE command argument.

**OMEGAMON XE platform publications**

To use the information for the IBM Tivoli OMEGAMON XE for CICS on z/OS product effectively, you must have some prerequisite knowledge about the OMEGAMON XE platform and the CandleNet Portal interface, which you can obtain from the following guides:

- **IBM Tivoli OMEGAMON Platform: Installing and Setting up OMEGAMON Platform and CandleNet Portal on Windows and UNIX, SC32-1768**
  Provides information on installing and setting up the component products of the OMEGAMON Platform: Candle Management Server, CandleNet Portal, Candle Management Workstation® (CMW), Warehouse Proxy, Candle Data Warehouse, Alert Adapter for AF/REMOTE®, Alert Adapter for Tivoli Enterprise Console®, and Alert Emitter for Tivoli Enterprise Console on Windows® and UNIX®.

- **IBM Tivoli OMEGAMON Platform: Configuring Candle Management Server on z/OS, GC32-9414**
  Describes how to configure and customize the Candle Management Server on z/OS. The book also contains platform planning information and information about setting up security on your Candle Management Server.

- **IBM Tivoli OMEGAMON Platform: Historical Data Collection Guide for OMEGAMON XE Products, Versions 360 and 195, GC32-9182**
  Describes the process of collecting historical data and either warehousing it or converting it to delimited flat files for reporting purposes. It also describes how to configure historical data collection and warehousing intervals using the CandleNet Portal.

  Describes how to perform administrative tasks associated with the CandleNet Portal.

  Describes how to use the CandleNet Portal interface. It includes a tutorial about monitoring that covers workspaces, navigation, views, and responding to alerts. Different types of views and situations for event-based monitoring are also included, as well as information on automation policies.

**CICS publications**

The following books from the CICS Transaction Server library have been used extensively in the preparation of this documentation:

- **IBM CICS Transaction Server: Problem Determination Guide**
- **IBM CICS Transaction Server: Performance Guide**
- **IBM CICS Transaction Server: System Programming Reference**
- **IBM CICS Transaction Server: CICS-Supplied Transactions**
- **IBM CICS Transaction Server: System Definition Guide**

Use the books from the above list that relate to the release of CICS that you are planning to monitor.

The CICS TS 3.1 Information Center is accessible from [http://publib.boulder.ibm.com/infocenter/cicsts31/index.jsp](http://publib.boulder.ibm.com/infocenter/cicsts31/index.jsp)
Related publications
The *Tivoli Software Glossary* includes definitions for many of the technical terms related to Tivoli software. The *Tivoli Software Glossary* is available at the following Tivoli software library Web site:


Access the glossary by clicking the Glossary link on the left pane of the Tivoli software library window.

Accessing publications online
The documentation CD contains the publications that are in the product library. The format of the publications is PDF or PDF and HTML. Refer to the readme file on the CD for instructions on how to access the documentation.

IBM posts publications for this and all other Tivoli products, as they become available and whenever they are updated, to the Tivoli software information center Web site at the following Web address:


**Note:** If you print PDF documents on other than letter-sized paper, set the option in the File > Print window that allows Adobe Reader to print letter-sized pages on your local paper.

Accessing publications online
The documentation CD contains the publications that are in the product library. The format of the publications is PDF and HTML.

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**Note:** If you print PDF documents on other than letter-sized paper, set the option in the File > Print window that allows Adobe Reader to print letter-sized pages on your local paper.

Ordering publications
You can order many Tivoli publications online. If publications have been made available for hardcopy, they can be ordered through the IBM Publications Center at the following Web site:


You can also order by telephone by calling one of these numbers:
- In the United States: 800-879-2755
- In Canada: 800-426-4968

In other countries, contact your software account representative to order Tivoli publications.
Tivoli technical training

For Tivoli technical training information, refer to the following IBM Tivoli Education Web site:

http://www.ibm.com/software/tivoli/education

Support information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

• Searching knowledge bases: You can search across a large collection of known problems and workarounds, Technotes, and other information.
• Obtaining fixes: You can locate the latest fixes that are already available for your product.
• Contacting IBM Software Support: If you still cannot solve your problem, and you need to work with someone from IBM, you can use a variety of ways to contact IBM Software Support.

Conventions used in this guide

This guide uses several conventions for special terms and actions and for operating system-dependent commands and paths.

Typeface conventions

This guide uses the following typeface conventions:

**Bold**

• Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
• Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as Tip:, and Operating system considerations:)
• Keywords and parameters in text

**Italic**

• Words defined in text
• Emphasis of words (words as words)
• New terms in text (except in a definition list)
• Variables and values you must provide

**Monospace**

• Examples and code examples
• File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
• Message text and prompts addressed to the user
• Text that the user must type
• Values for arguments or command options

Operating system-dependent variables and paths

This guide uses the UNIX convention for specifying environment variables and for directory notation.
When using the Windows command line, replace $variable$ with %variable% for environment variables and replace each forward slash (/) with a backslash (\) in directory paths. The names of environment variables are not always the same in Windows and UNIX. For example, %TEMP% in Windows is equivalent to $tmp$ in UNIX.

**Note:** If you are using the bash shell on a Windows system, you can use the UNIX conventions.

**Terminology**

For a list of terms and definitions for Tivoli and other IBM products, refer to the IBM terminology Web site:

http://www.ibm.com/ibm/terminology/
Chapter 1. Configuration overview

Four possible configurations for Tivoli OMEGAMON XE for CICS on z/OS are described in IBM Tivoli OMEGAMON XE for CICS on z/OS: Getting Started. This book describes the procedures for those configurations. The four configurations are:

- Configuration 1: The Candle Management Server and the Monitoring Agent in different address spaces on the same z/OS image
- Configuration 2: The Candle Management Server on a distributed system
- Configuration 3: The Candle Management Server and the Monitoring Agent in multiple z/OS images
- Configuration 4: Both the Candle Management Server and the Monitoring Agent in the same address space

Features of the Configuration Tool

In previous releases, the Configuration tool was known as CICAT (the Candle Installation and Configuration Assistance Tool). This tool is used to install and configure IBM Tivoli OMEGAMON II and to configure IBM Tivoli OMEGAMON XE products.

The Configuration Tool provides defaults wherever possible. These defaults should be sufficient to complete the installation or products and maintenance, but should be changed to reflect the needs of your enterprise. The tool operates in two modes:

- Interactive mode where an ISPF panel-driven facility assists you in specifying parameters and tailoring jobs for configuring new products and new versions of products
- A Batch Facility that creates a single batch job that you can use to build, configure, and load an RTE. This single job performs all of the same RTE processing as the interactive Configuration tool. Batch Mode is a simple and useful way of replicating RTEs to other z/OS systems.

Detailed information about using the Configuration Tool is found in the online help for the tool.

Checklist: Setting up the Configuration Tool

This checklist contains the steps you perform to set up the and start the Configuration tool. You can then define the high-level qualifiers that are used in the jobs that are created by the configuration tool.

Table 1. Setting up the Configuration Tool

<table>
<thead>
<tr>
<th>Task</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using TSO, set up the Configuration tool by copying the contents of the target library to your configuration tool library.</td>
<td>&quot;Setting up the Configuration Tool&quot; on page 2</td>
</tr>
<tr>
<td>Using TSO, start the Configuration tool: EX shilev.INSTLIB.</td>
<td>&quot;Starting the Configuration Tool&quot; on page 2</td>
</tr>
<tr>
<td>On the Main Menu, enter 1 (Set up work environment) and complete the following options on the menu.</td>
<td>&quot;Setting up your work environment&quot; on page 3</td>
</tr>
</tbody>
</table>
Setting up the Configuration Tool

After installing the product tape that contains the Installation and Configuration Assistance Tool, as instructed in the Program Directory, you need to set up your configuration environment.

Setting up your environment consists of copying the contents from one of the target libraries into the appropriate Configuration tool work library. This applies to products installed into either an existing Consolidated Software Inventory (CSI) or into a new CSI. The CSI is a VSAM dataset in which SMP/E maintains information about the system.

If you use an existing CSI, perform these steps to copy the contents of the target library into your existing Configuration tool work library and to configure your environment:

<table>
<thead>
<tr>
<th>Option</th>
<th>Do this</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you use an existing CSI, copy the contents of the target library</td>
<td>Copy the contents of the thilev.TKCIINST library to the shilev.INSTLIBW library as follows:</td>
</tr>
<tr>
<td>into your existing Configuration tool work library and to configure</td>
<td>//COPY EXEC PGM=IEBCOPY</td>
</tr>
<tr>
<td>your environment.</td>
<td>//SYSPRINT DD SYSOUT=YES</td>
</tr>
<tr>
<td></td>
<td>//IN DD DSN=thilev.TKCIINST,DISP=SHR</td>
</tr>
<tr>
<td></td>
<td>//OUT DD DSN=shilev.INSTLIBW,DISP=SHR</td>
</tr>
<tr>
<td></td>
<td>/SYSIN DD *</td>
</tr>
<tr>
<td></td>
<td>C O=OUT,I=((IN,R))</td>
</tr>
<tr>
<td></td>
<td>Where: thilev= the SMP/E target high-level qualifier and shilev is the installation high-level qualifier.</td>
</tr>
<tr>
<td>For a new CSI, perform these steps to copy the contents of the target</td>
<td>1. Create the shilev.INSTLIB with these values:</td>
</tr>
<tr>
<td>library to the newly created Configuration tool library, and to set</td>
<td>RECFM = FB</td>
</tr>
<tr>
<td>up and configure your environment.</td>
<td>LRECL = 80</td>
</tr>
<tr>
<td></td>
<td>BLKSIZE = 8880</td>
</tr>
<tr>
<td></td>
<td>PRIMARY = 600 (Blocks)</td>
</tr>
<tr>
<td></td>
<td>SECONDARY = 300 (Blocks)</td>
</tr>
<tr>
<td></td>
<td>DIRECTORIES BLOCKS = 88</td>
</tr>
<tr>
<td></td>
<td>2. Copy the contents of the thilev.TKCIINST library into the shilev.INSTLIB library:</td>
</tr>
<tr>
<td></td>
<td>//COPY EXEC PGM=IEBCOPY</td>
</tr>
<tr>
<td></td>
<td>//SYSPRINT DD SYSOUT=YES</td>
</tr>
<tr>
<td></td>
<td>//IN DD DSN=thilev.TKCIINST,DISP=SHR</td>
</tr>
<tr>
<td></td>
<td>//OUT DD DSN=shilev.INSTLIB,DISP=SHR</td>
</tr>
<tr>
<td></td>
<td>/SYSIN DD *</td>
</tr>
<tr>
<td></td>
<td>COPY OUTDD=OUT,INDD=IN</td>
</tr>
</tbody>
</table>

Now you can start the Configuration Tool.

Starting the Configuration Tool

Follow these steps to start and access the Tivoli OMEGAMON XE for CICS on z/OS menu in the Configuration Tool:
1. Log onto a TSO session.
2. Invoke ISPF.
3. Go to a TSO command line. (In most cases, this is option 6 on the ISPF Primary Option Menu.)

4. Enter the following command: EX 'shilev.INSTLIB' where shilev is the high-level qualifier you specified for the Configuration Tool.

This displays the main menu of the Configuration Tool that looks like this:

```
---------------------------------- MAIN MENU ----------------------------------
OPTION ==> Enter the number to select an option:
    1 Set up work environment
    2 Install products or maintenance
    3 Configure products
    1 Installation information     === Revised
    5 Services and utilities

Figure 1. Main menu of the Configuration Tool
```

If this is the first time that you have set up an RTE you need to set up your work environment before proceeding to configure your products.

### Setting up your work environment

Perform these steps to set up your work environment:

1. From the Main Menu, enter 1 (Set up work environment) and complete the following options on the menu. This displays the Set Up Work Environment menu that has two options.
   a. Select Specify options to specify allocation and processing values that will be used to create the work datasets that are needed by the Configuration tool. This provides operational values for generating batch jobs.
   b. Select Allocate work libraries to allocate the Configuration tool work libraries. The initial library, INSTLIB, contains both the operational code and the tables and jobs created by the installer. This job creates additional libraries and populates them with the data initially stored in INSTLIB.

2. From the Set Up Work Environment menu, enter 1 (Specify Options) When you have entered the relevant information, press Enter and this returns you to the Set Up Work Environment menu.

**SMP/E JCL REGION value**

SMP/E batch jobs contain the REGION= parameter on the EXEC statement. The value of this parameter is taken from the CIGSMREG variable. Change this value as required by your installation. The default is OM.
**Installation work datasets**

**Unit**  Specify the unit name to be used when allocating the SMP/E datasets. If the SMP/E datasets are not to be SMS-managed, this field is required. If your installation does not use the unit name or if it is optional, you can leave this field blank.

**Volser**  Specify the volume serial numbers to be used when allocating the SMP/E datasets. If the SMP/E datasets are not to be SMS-managed, this field is required. If your installation does not use the volume serial number or if it is optional, you can leave this field blank.

**Storclas**  If the SMP/E datasets are to be SMS-managed, specify the SMS storage class to be used for allocation. If your installation does not use the SMS Storclas parameter, or if it is optional, leave this field blank.

**Mgmtclas**  If the SMP/E datasets are to be SMS-managed, specify the SMS management class to be used for allocation. If your installation does not use the SMS Storclas parameter, or if it is optional, leave this field blank.

**PDSE**  If the SMP/E datasets are to be SMS-managed, you can specify Y to allocate PDSE datasets instead of standard PDS datasets. It is recommended to use PDSE.

**Job statement**  Enter the standard jobcard that will be used for each of the batch jobs that the Installation tool builds. This jobcard information is saved in the PROFILE pool for each user.

---

**Figure 2. Specify options panel**
3. From the Set Up Work Environment menu, enter 2 (Allocate Work Libraries)
   This presents you with JCL that you should review, submit and expect a return
code of zero.

   **Note:** After you create and submit the Allocate work libraries job, you **must** exit
the Configuration tool and allow the job to run before starting the
Configuration tool once more.

Before you create a new RTE, go to “Setting up your configuration environment” to
define the job cards that are used in the jobs that you create with the Configuration
Tool.

**Setting up your configuration environment**

Perform these steps to set up your configuration environment.

1. From the Main Menu, enter 3 (Configure products). This displays the Configure
   Products menu that has two options.
   - Set up configuration environment
   - Select product to configure.

2. Enter 1 (Set up configuration environment). This displays the Set Up
   Configuration Environment panel. These values are used to customize the
   JCL that is created by the Configuration Tool. The Configuration Tool is
designed to configure products in multiple RTEs.

   **Note:** If you enter the Configuration environment information panel again after
   specifying values, the high-level qualifiers will be locked and cannot be
   modified. If you must modify these values for some reason, you can unlock them by using “Unlock runtime high-level qualifiers” from the
   Services and utilities menu.

   For further help, press F1.
Figure 4. Set up the configuration tool panel

where hilev is the name of your high-level qualifier, for example, OMEGAMON.C5310.

Note: You should not use the same high-level qualifier as that used in your SMPE libraries.

You should select one of the next four major topics. Each topic describes the procedures that you should follow to set up a particular configuration as listed in Chapter 1, “Configuration overview,” on page 1. They are also described more fully in IBM Tivoli OMEGAMON XE for CICS on z/OS: Getting Started. Now go to your selected configuration:

- Chapter 2, “Configuring Tivoli OMEGAMON XE for CICS on z/OS in a single z/OS image,” on page 7.
- Chapter 3, “Configuring a local Candle Management Server on a distributed system,” on page 41.
- Chapter 4, “Configuring Tivoli OMEGAMON XE for CICS on z/OS in multiple z/OS images,” on page 79.
- Chapter 5, “Configuring Candle Management Server and Monitoring Agent in the same address space,” on page 109.
Chapter 2. Configuring Tivoli OMEGAMON XE for CICS on z/OS in a single z/OS image

This procedure describes the steps that you need to follow to configure Tivoli OMEGAMON XE for CICS on z/OS when you have the Candle Management Server and Monitoring Agent in different address spaces on the same z/OS image as shown in Figure 5. This procedure assumes that you have already set up the work and configuration of the configuration tool as described in “Checklist: Setting up the Configuration Tool” on page 1.

Step 1 - Configure a runtime environment
This involves:
1. “Introduction to runtime environments in single z/OS image” on page 8
2. “Adding a new runtime environment” on page 8
   a. “Specifying values on the add runtime environment panels” on page 11
3. “Building runtime libraries” on page 14

Step 2 - Configure the hub Candle Management Server.
This involves:
1. “Configuring a hub Candle Management Server” on page 14
2. Configuring a persistent data store. This is optional depending whether you want to collect historical system data at the Candle Management Server.

Step 3 - Configure OMEGAMON II for CICS.
This involves:
1. “Configuring Tivoli OMEGAMON II for CICS” on page 23
2. “Allocating task history data sets” on page 25

Step 4 - Configure Tivoli OMEGAMON XE for CICS on z/OS.
This involves:
1. “Configuring Tivoli OMEGAMON XE for CICS on z/OS” on page 28
2. Configuring a persistent data store. This is optional depending whether you want to collect historical system data at the Monitoring Agent.

Figure 5. A local configuration with Candle Management Server, agent on the same z/OS image as the CICS regions
3. Configure the monitoring agent in its own z/OS image so that it refers to the hub Candle Management Server. Again, configuring the persistent data store is optional.

**Step 5 - Loading the Libraries, modifying the CICS started job and completing the configuration**

This involves:
1. "Loading runtime libraries" on page 35.
2. "Completing the configuration" on page 36.
3. "Modifying the CICS startup JCL" on page 37.

**Step 6 -Installing and configuring CandleNet Portal Server and CandleNet Portal**

Configure the CandleNet Portal Server and CandleNet Portal on your workstation.

To do this see Chapter 6, “Installing CandleNet Portal server and client on Windows XP,” on page 133.

---

**Introduction to runtime environments in single z/OS image**

In this configuration you only need to create one runtime environment as shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2. Summary of the RTE used in this configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>RTE 1</td>
</tr>
</tbody>
</table>

A runtime environment provides access to the OMEGAMON libraries. Each Candle Management Server requires its own runtime environment and a Monitoring Agent requires its own runtime environment if it exists on a separate z/OS image to the Candle Management Server.

**Adding a new runtime environment**

Follow these steps to add a new runtime environment.

1. Access the Configuration tool. From the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.

   ```
   . --------------------------- PRODUCT SELECTION MENU ---------------------------
   . COMMAND ==> 
   . Actions: S Select product
   . S IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0
   . F1=Help  F3=Back  F5=Refresh  F7=Up  F8=Down
   . 
   
   Figure 6. Product selection menu
   ```

---

8 Configuring IBM Tivoli OMEGAMON XE for CICS on z/OS
2. On the Product Selection Menu, enter S in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. You can select only one product at a time for configuration.

   **Note:** Actions A, B, C, and L must be entered in sequence for each RTE that contains the selected product. Base RTEs only require actions B and L. The Configuration tool displays the Runtime Environments (RTEs) panel. In this case there are none.

3. Type A (Add RTE) in the **Actions** field and type a name for your new RTE. The name is a unique identifier (up to 8 characters), automatically used as the mid-level qualifier for FULL and SHARING RTEs. You can optionally specify a mid-level qualifier for BASE RTEs.

   **Figure 7. Runtime environments panel**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter A (Add RTE).</td>
<td>This defines the RTE to the Configuration tool. This option creates a definition for the configuration tool only.</td>
</tr>
<tr>
<td>Enter B (Build libraries).</td>
<td>Generates a batch job to allocate the required runtime libraries for the selected product. This job is presented for your review and submittal. Action B must be performed for every RTE that will contain the selected product. This includes base RTEs.</td>
</tr>
<tr>
<td>Enter C (Configure).</td>
<td>Presents panels to collect the parameter values required to configure the selected product for this RTE. The RTE default values are used when applicable. A batch job is generated and presented for your review and submittal. Action C must be performed after Action B for every RTE that contains the selected product.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Enter L (Load all product libraries after SMP/E). | Load all product libraries after SMP/E - Generates a batch job to load the runtime libraries from the SMP/E target libraries for this RTE. You must load the RTE libraries after SMP/E maintenance or product configuration, action C.  
**Note:** In a sharing-RTE type configuration, the master RTE and all other RTEs sharing the master RTE must be loaded.  
**Note:** The Load action must be performed any time that a product has been configured within an runtime environment, or if maintenance has been applied. |
| Enter D (Delete).                           | Deletes the RTE. This RTE definition and associated configuration values are removed from ICAT and a batch job is created to delete the libraries. |
| Enter U (Update).                           | Displays current RTE values and indicates those you can change. To apply changes, you must use actions B, C and L in sequence for the affected products. |
| Enter V (View Values).                      | Displays current RTE values.                                                                                                                                                                      |
| Enter Z (Utilities).                        | Displays a menu of selections for performing various useful processes for maintaining the RTE. The utilities installed are displayed.                                                            |

4. Enter the type of RTE being created. In this case, start by creating a Base type. This is essential if you intend to add other RTEs using the sharing type later on. Valid types are:

**FULL** Allocates both private and base libraries. Use this if only one RTE is defined for your environment, or if you add an RTE for a unique set of products.

**BASE** Allocates base libraries only, and does not execute alone. Use this only in conjunction with SHARING RTEs populated with the same products.

**SHARING**

Allocates private libraries only. This type can share base libraries with a BASE or FULL RTE populated with the same products, or use SMP/E target libraries for its base libraries. Define one SHARING RTE for each z/OS image if you have multiple images.

5. (For SHARING RTEs only). Type the name of the BASE or FULL RTE from which this RTE will obtain its base library information. If SMP/E target libraries are to be shared, type **SMP**.

6. Type a description for this RTE, which may be any information that is useful for you and others at your site. Press Enter to add the definition of the RTE to the Configuration tool.

After specifying all required values on the Runtime Environments (RTEs) panel, press Enter and continue with "Specifying values on the add runtime environment panels" on page 11.

After you have added a new RTE to the configuration tool, you must build the RTE.
Specifying values on the add runtime environment panels

Follow these steps to specify values to define your runtime environment.

1. On the first **Add Runtime Environment** panel, specify the following values to define the runtime environment. The first panel looks like this:

```
------------------------ ADD RUNTIME ENVIRONMENT (1 of 2) ------------------------
COMMAND ===> RTE: [RTEname] Type: [SHARING] Desc: [RTE with CMS]

Libraries High-level Qualifier Volser Unit Storclas Mgmtclas PDSE
Non-VSAM hilev P2OMG1 3390 N
VSAM hilev P2OMG1

Mid-level qualifier ===> [RTEname]

JCL suffix ===> [suffix]
STC prefix ===> [CANS]
SYSOUT class ===> [X] Diagnostic SYSOUT class ===> [X]
Load optimization ===> [N] (Y, N)

Will this RTE have a Candle Management Server ===> [Y] (Y, N)
If Y, CMS name ===> [RTEname:CMS] (Case sensitive)

Copy configuration values from RTE ===> (Optional)
```

Enter=Next  F1=Help  F3=Back

*Figure 8. Add runtime environment (1 of 2) panel*

On this panel enter your JCL suffix and change the STC prefix. Check that the response to "Will this RTE have a Candle Management Server is Y. Press F1 for further help.

**Note:** The full Candle Management Server name has a suffix of :CMS. When seeding the Candle Management Server later you need the full name, for example, *[RTEname]:CMS]*.

**Non-VSAM libraries**

- Type the high-level qualifier.
- Type your site's values for either the **Volser Unit** parameters or the **Storclas/Mgmtclas** parameters.
- Indicate whether PDSE libraries are to be used.
- PDSEs do not require compression, and are not limited by a pre-defined number of directory entries. The default of N signifies that PDS libraries are to be used.

**Note:** Supply SMS values for libraries specified as PDSEs.

**VSAM libraries**

- Type the high-level qualifier.
- Type your site's values for the **Volser** or the **Storclas/Mgmtclas** parameters.

**Mid-level qualifier**
• For FULL and SHARING RTEs, accept the mid-level qualifier default value (which is the RTE name you previously specified) or specify a unique mid-level qualifier.
• For BASE RTEs, specify a unique mid-level qualifier or optionally leave this field blank.

**JCL suffix**
Type a suffix for the JCL. The suffix (up to four characters) is appended to all JCL that is generated in INSTJOBS. The JCL suffix uniquely identifies the batch job members created by the Configuration tool for this RTE.

**STC prefix**
(FULL and SHARING RTEs only) Type a global STC Prefix (from 1–4 characters) to be used in building started tasks names for products in this RTE. The default is CANS.

**SYSOUT class / Diagnostic SYSOUT class**
Specify values for the non-diagnostic and diagnostic output DDNAMES.

*Note:* These values were previously hardcoded.

**Load optimization**
Indicate whether you want to optimize loading of this RTE. The default is N. Refer to the online help (F1) for more details.

**Will the RTE have a Candle Management Server?**
(FULL and SHARING RTEs only) This configuration has a hub Candle Management Server, enter Y. The default of Y allocates Candle Management Server libraries.

You must enter the name of the Candle Management Server to be configured. It is used by the other components that need to communicate with this Candle Management Server. The name of the runtime environment is used as a default.

**Copied from RTE**
(FULL and SHARING RTEs only - Optional)
Type the name of an existing RTE, from which configuration values will be copied and used for this RTE.

*Note:* This procedure makes an exact copy of the existing RTE. If you will not be using the same products in the new RTE, do not use this procedure.

**Install National Language components?**
(FULL and SHARING RTEs only - NLS products only)
Specify Y to install National Language Components in this RTE for all eligible products.

2. After specifying all required values on the first **Add Runtime Environment** panel, press Enter. The second **Add Runtime Environment** panel is displayed.
3. On the second Add Runtime Environment panel, for FULL and SHARING RTEs only, specify these values:

**Use OS/390 system variables?**
Specify Y if this runtime environment use z/OS system variables.

See "Enabling system variable support" on page 163 for more information on enabling system variable support.

**Security type**
Specify what, if any, security system is to be used for this RTE. The default is NONE. If ACF2 is specified, you must also type the name of the ACF2 macro library.

**VTAM communication values**
- Type a global VTAM applid prefix (from 1–4 characters) to be used in building the VTAM applids for products in this RTE. The default is CTD.
- Identify your VTAM network. This is defined in the NETID parameter of VTAMLST.
- Type the Logmode table name for LU6.2 logmode entries. The default is KDSMTAB1.
- Type the LU6.2 logmode for this RTE. The default is CANCTDCS.

**TCP/IP communication values**
- Type the TCP/IP host name of the z/OS system in which this RTE resides and the TCP/IP address of the host. Enter TSO HOMETEST to get these values.
- Type the started task name of the TCP/IP server.
- Type the address of the IP port. The default is 1918.
- Type the Interlink TCP/IP subsystem name (if applicable).
- Do not enter the fully-qualified hostname.
Note: Enter V (View Values) to verify the RTE information and U (Update) to make any changes.

Do not add the fully qualified hostname. You should omit the domain name.

When you have finished defining your runtime environment, continue with Building runtime libraries.

Building runtime libraries

After adding an RTE to your system, also you must run this procedure before configuring your product.

Follow these steps to build the runtime libraries.
1. From the Main Menu of the Configuration tool, enter 3 (Configure products) and 2 (Select product to configure) This displays the Runtime Environments (RTEs) panel.

2. Build the runtime libraries: Enter B in the Action column next to the RTE you are creating and press Enter. This displays the JCL that you should review, edit, submit and expect a return code of zero. Change the jobname to the name of the member so that you can track the job logs more easily.

Note: You might need to add REGION=0M to the jobcard depending on your installation. Check with your system programmer. If you do not you might be missing data sets later on.

3. Review the JCL and submit the job. Change the job name to match the member name so that you can easily identify the jobs later on.

4. Submit the job and check that the job completes successfully. All return codes should be zero.

When you have completed building the runtime libraries, continue with Configuring a hub Candle Management Server.

Configuring a hub Candle Management Server

Now that you have added a Runtime Environment (RTE), you can start the configuration of the components.
Access the Configuration Tool and from the main menu, enter \textbf{3} (Configure products) > \textbf{2} (Select product to configure) > \textbf{S} (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter \textbf{C} in the action column adjacent to your runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:

```
------------------ PRODUCT CONFIGURATION SELECTION MENU ------------------
COMMAND =>
The following list of components requires configuration to make the product operational. Refer to the appropriate configuration documentation if you require additional information to complete the configuration.

To configure the desired component, enter the selection number on the command line. You should configure the components in the order they are listed.

COMPONENT TITLE
1 Candle Management Server
2 OMEGAMON II for CICS
3 IBM Tivoli OMEGAMON XE for CICS on z/OS
```

Figure 11. Product configuration selection menu

2. Enter \textbf{1} (Candle Management Server). You must first configure it before configuring the products that communicate with the Candle Management Server. There are six steps needed for the configuration of your Candle Management Server. They are listed in the following screen. Press F1 for Help.

\textbf{Note}: You can omit step 5 if you do not plan to collect any historical data.

```
------------- CONFIGURE THE CMS (V360) / RTE: RTEname -------------
OPTION =>
Each RTE can contain only one CMS. To configure the CMS for this RTE, perform these steps in order:

1 Create LU6.2 logmode
2 Specify configuration values
3 Specify communication protocols
4 Create runtime members
5 Configure persistent datastore
6 Complete the configuration

Optional:
7 View CMS list and registration status

F1=Help  F3=Back
```

Figure 12. Configure the Candle Management Server

3. Enter \textbf{1} (Create LU6.2 logmode). This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter. A job to create the logmode is displayed. You must submit this job unless you plan on using an existing LU6.2 logmode.
**Note:** This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter, a job to create the logmode is displayed. Review and edit (if necessary) this job. Submit this job unless you plan to use an existing LU6.2 logmode. You should get a return code of zero.

At the end of this you are returned to the Configure the CMS (V360) menu.

---

**Create LU6.2 Logmode Panel**

**Note:** This screen shows the defaults. These are only suggestions. Follow the guidelines for your site. Press F1 for further information.

**LU6.2 logmode**
This is the name LU6.2 logmode.

**Logmode table name**
This is the name of the logmode table that contains the LU6.2 logmode. This is required even if you do not submit the job.

**VTAMLIB load library**
This is the name of the system library that is used to contain VTAM logmode tables. This is usually SYS1.VTAMLIB. You can specify any load library if you do not want to update your VTAMLIB directly.

**VTAM macro library**
This is the name of the system library that contains the VTAM macros. This library is usually SYS1.SISTMAC.

4. Enter 2 (Specify Configuration values). This is the critical step where you declare if this is either a hub or remote Candle Management Server.

For this configuration where there is only one Candle Management Server you should specify Hub.
This is the name of the started task for the Candle Management Server. The default is CANSDSST.

Specify whether the Candle Management Server you are creating is a Hub or a Remote. For this configuration, enter **HUB**.

Initially do not set this to Y to enable you to use the default userid, sysadmin, of your CandleNet Portal. If you do, make sure that this userid is defined to your external security manager. Specify this parameter if you want Candle Management Server security access to validate a user ID. The default is N.

**Note:** Do not enable security validation until your security is set. Before you add security to your Candle Management Server:

- Make sure you have configured all products and verified that they are operating properly.
- If you choose a third-party security package, verify that it is installed and configured for your site. Ensure that any userid to be used by the CandleNet Portal is defined to your external security manager.

5. Enter 3 (Specify Candle Management Server communication protocols). Specifies the communication protocol for the Candle Management Server. It allows you to specify IP, SNA, and IPPIPE. This lists determines the priority for the protocol.

---

**Figure 14. Specify configuration values panel**

**CMS Started Task**

This is the name of the started task for the Candle Management Server. This started task must be copied to your system procedure library. The default is CANSDSST.

**Hub or Remote**

Specify whether the Candle Management Server you are creating is a Hub or a Remote. For this configuration, enter **HUB**.

**Security validation**

Initially do not set this to Y to enable you to use the default userid, sysadmin, of your CandleNet Portal. If you do, make sure that this userid is defined to your external security manager. Specify this parameter if you want Candle Management Server security access to validate a user ID. The default is N.

**Note:** Do not enable security validation until your security is set. Before you add security to your Candle Management Server:

- Make sure you have configured all products and verified that they are operating properly.
- If you choose a third-party security package, verify that it is installed and configured for your site. Ensure that any userid to be used by the CandleNet Portal is defined to your external security manager.

5. Enter 3 (Specify Candle Management Server communication protocols). Specifies the communication protocol for the Candle Management Server. It allows you to specify IP, SNA, and IPPIPE. This lists determines the priority for the protocol.

---

**Figure 15. Specify CMS communication protocols**
IP.PIPE
   Specifies the use of the TCP/IP protocol for underlying communications.

IP
   Specifies the use of the UDP/IP (User Datagram Protocol).

SNA
   Specifies the use of Systems Network Architecture (SNA)/Advanced
   Program-To-Program Communications (APPC).

6. On the Specify Candle Management Server Communication Protocols
   panel, enter the values that you use at your site and press Enter. If you entered
   three values in the Specify Candle Management Server communications
   protocol panel, you are presented with a panel for each option. Press Enter
   each time. Eventually you are returned to the Configure the Candle
   Management Server panel.

a. Press Enter. This displays the Specify IP.PIPE communication protocol
   panel. Enter your hostname (do not include the domain name), IP address,
   started task name, and portnumber as indicated in Figure 16.

--- SPECIFY IP.PIPE COMMUNICATION PROTOCOL ---

COMMAND ==> 

Specify the TCP communication values for this CMS.

Hostname    ==> hostname
Address     ==> IP_address
Started task ==> TCP/IP

If applicable
   Network interface card (NIC) ==> 
   Interlink subsystem ==> 
   IUCV interface in use?    ==> N (Y, N)

Specify IP.PIPE configuration
   Port number    ==> portnumber
   Address translation ==> N (Y, N)
   Partition name ==> 

Enter=Next  F1=Help  F3=Back

Figure 16. Specify IP.PIPE communication protocol

Hostname
   Specify the TCP ID of the MVS mainframe to which you will
   connect. To get this value, issue the TSO HOMETEST command
   and use the first qualifier of the TCP hostname.

Address
   Specify the TCP address of the MVS mainframe to which you will
   connect. To get this value, issue the TSO HOMETEST command.

Started task
   Specify the started task name of TCP which is running on the MVS
   mainframe host.

Network interface card (NIC)
   Specify the network interface card (NIC) that you prefer for the IBM
   application to use. During configuration, the Configuration tool adds
   the KDCB0_HOSTNAME= parameter in the KDSENV member of the
   high.level.qualifier.RTEname.RKANPAR library.
Port number

Specify the port number you want to use. If you are not using the default port number 1918, enter the port number you plan to use. This value is used in the KDC_FAMILIES environment variable in the KDSENV member in RKANPAR.

**Note:** If you are defining a remote Candle Management Server, then this port number must match the port number of the Hub that this remote Candle Management Server reports to. There should only be one remote Candle Management Server in a given MVS image that reports to the same Hub Candle Management Server.

Address translation

Specify Y to configure IP.PIPE support for communication across firewalls using address translation.

**Note:** By default, Ephemeral Pipe Support (EPS) is enabled automatically to allow IP.PIPE connections which cross a (Network address) translating firewall. This feature obviates the need for a broker partition file (KDC_PARTITIONFILE=KDCPART). If you specifically want to disable EPS, then specify Y to the Address translation field.

b. Press Enter. This displays the **Specify IP communication** panel menu. Enter your hostname (do not include the domain name), IP address, started task name, and portnumber as shown in Figure 17. The explanations of this panel are found in the IP.PIPE description.

c. Press Enter. This displays the **Specify SNA communication protocol** menu. Enter the prefix and the network ID as shown in Figure 18 on page 20.
Applid prefix
Specifies the value is used to create all of the VTAM applids required by the CMS. These applids begin with the prefix, and end with a specific value that makes each applid unique. These applids are contained in the VTAM major node.

Network ID
Enter the identifier of your VTAM network. You can locate this value on the NETID parameter in the VTAMLST startup member ATCSTRnn.

7. Enter 4 (Create runtime members). This creates the runtime members required by Candle Management Server. These members are created in the runtime libraries for this RTE. Edit the JCL, submit it and expect a return code of zero.

See the Candle Management Server on OS/390 and z/OS Configuration and Customization Guide for detailed information on configuring a Candle Management Server.

When you have finished configuring the hub Candle Management Server, continue with “Configuring a persistent data store (Candle Management Server)”

Configuring a persistent data store (Candle Management Server)

Persistent data stores are associated with each Candle Management Server, Tivoli OMEGAMON XE for CICS on z/OS, and each Monitoring Agent. You should include a persistent data store for the Candle Management Server. However the data stores for Tivoli OMEGAMON XE for CICS on z/OS and the Monitoring Agent are optional and depend whether you plan to collect system historical data.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS) > C (Adjacent to your RTE) > 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Configure Candle Management Server panel (Figure 12 on page 15).

1. From the Configure Candle Management Server panel, enter 5 (Configure persistent datastore) and press Enter. This opens the Allocate persistent data store panel, see Figure 19 on page 21.

Note: If you do not intend to collect any historical data (either system or task), you can omit this step.
2. Enter 1 (Modify and review datastore specifications) and press Enter. This panel controls the size, the placement and the number of data sets that comprise the Persistent Datastore, or press F3 to accept the values displayed.

Note: The settings on this screen are only suggestions. Follow the guidelines for your site.

Group name
Is the name of the group. Each group contains the number of data sets specified in the Group Count field.

Data Sets lowlev
Is the low-level qualifier of the data sets name. It is suffixed with a 1-character value (1-9, A-Z) that indicates the data set number within a group. For example:
- high.level.qualifier.RTENamed.RGENHIS1
- high.level.qualifier.RTENamed.RGENHIS2
- high.level.qualifier.RTENamed.RGENHIS3

Where RGENHIS\(n\) is the low-level qualifier.

You may use the default values displayed or change them to meet your site’s requirements.

Group Count
Indicates the number of data sets within the group.

Note: Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one,
additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

**Est Cyl space**
This field is used to allocate the number of datastore files you specified for the group. The CT/PDS processing computes how much space is needed to allocate the group datastore files, and how much additional required space is needed to hold overhead information. Overhead information includes the product dictionary, table records, index records, and spare room for buffers that need to be reserved for when the data set is full.

**Backup, Export, and Extract**
These fields are used for datastore maintenance functions. Specify Y to turn on one of these maintenance functions for a group.

You can use the Backup facility if you want to keep old history data. This facility does an MVS IEBGENER request to make an exact copy of the data set being maintained. It is a simple copy of the data set to either tape or DASD. A backed-up file also has the advantage that nothing has to be done to the file to dynamically make the data available to the Persistent Datastore again.

Each group contains the number of data sets specified in the Group Count field. The Datasets Lowlev is suffixed with a 1-character value (1-9, A-Z) that indicates the dataset number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel, the PD#Psuffix job creates the Persistent Datastore members that make reference to these datastore files.

3. Enter 2 (Create or edit PDS maintenance jobcard). Edit the job card and press Enter. This specifies the job card to be used for the Persistent Datastore (PDS) KPDPROC1, KPDPROCC and KPDPROC2 maintenance jobs. The job card member (KPDJOBC) is created in the high.level.qualifier.RTEnamel..RKANSAM library.

4. Enter 3 (Create runtime members). This opens JCL that you can edit and submit. You should expect a return code of zero. This job creates the persistent datastore members.

5. Enter 4 (Edit and submit datastore allocation job). This opens JCL that you can edit and submit. You should expect a return code of zero. This job allocates and initializes all data sets required for this product’s persistent datastore.

**Note:** This job is applicable to define a brand new PDS configuration. If the PDS data sets already exist, then delete or rename this product’s persistent datastore files if you want the configuration tool to re-allocate and re-initialize the datasets for this product’s persistent datastore.

6. Enter 5 (Complete persistent datastore configuration). This describes the steps that you need to take to copy the procedures that you have created to your procedures libraries. This step will be deferred until the completion of the configuration of Tivoli OMEGamon XE for CICS on z/OS, see “Completing the configuration” on page 36.

When you have finished configuring the Candle Management Server, continue with "Configuring Tivoli OMEGAMON II for CICS" on page 23.

**Related reference**
Chapter 8, “Collecting and storing historical data.” on page 147
Configuring Tivoli OMEGAMON II for CICS

So far you have created a Runtime Environment and configured a Candle Management Server on your system. This procedure configures OMEGAMON II for CICS.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to the runtime definition. This displays the Product Configuration Selection menu (Figure 20):

Figure 20. Product configuration selection menu

2. From the Product Configuration Selection menu, enter 2 (OMEGAMON II for CICS). Figure 21 shows the configuration panel:

Figure 21. Configure OMEGAMON II for CICS
3. From the **Configure OMEGAMON II for CICS** panel, enter 1 (Specify configuration values). The configuration values are displayed. Enter the name of the started task for the End-to-End component. Make sure that the name of the started task for End-to-End (ETE) is correct and is unique for this RTE. You can accept the defaults for the remainder of the values. If you decide to activate security, make sure that the userid, **sysadmin** is defined in your external security manager.

4. Press Enter when complete. This displays the **OMEGAMON II for CICS Configuration values** panel. The STC prefix was defined in Figure 8 on page 11 and the Applid prefix is defined in Figure 8 on page 11. In this example the STC prefix is “OMEG”, the applid prefix is “IYK2”, and the suffix “A” was added to ensure that the names of the applid and started tasks were unique in this z/OS image.

   Edit the parameters to meet your site’s requirements.

   ![Figure 22. OMEGAMON II for CICS configuration values panel](image)

   **Note:** The screen shows some typical examples.

5. Press Enter to continue. This returns you to Figure 21 on page 23.
6. From the **Configure OMEGAMON II for CICS** panel, enter 2 (Allocate additional runtime datasets). At this stage you do not need to do anything in this step.

7. From the **Configure OMEGAMON II for CICS** panel, enter 3 (Create runtime members). This generates JCL that you should review, edit, submit the job and expect a return code of zero. Change the job name to, for example, the name of the member of the PDS to track the job logs.

8. From the **Configure OMEGAMON II for CICS** panel, enter 4 (Complete the configuration). This describes a series of steps that copy procedures from the Configuration Tool to your PROCLIB and VTAM definitions to your VTAMLST. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see “Completing the configuration” on page 36.

When you have finished configuring the OMEGAMON II for CICS, there are a series of optional tasks. They are:

- Allocation and initialize task history data sets. If you intend to collects task history data, you must do this.
- Install or update CICS global data area modules.
- Modify menu system command security.
- Install a Candle subsystem.
- Run a migration utility.

These are all described in “Allocating task history data sets.” If you do want to do this now, continue to “Configuring Tivoli OMEGAMON XE for CICS on z/OS” on page 28.

### Allocating task history data sets

This procedure describes a series of optional steps that you can carry out to configure the following:

- Allocation and initialize task history data sets. If you intend to collects task history data, you must do this.
- Install or update CICS global data area modules.
- Modify menu system command security.
- Install a Candle subsystem.
- Run a migration utility.

You can return to these steps later. You do not have to install them all.

1. From the **Configure OMEGAMON II for CICS** panel (Figure 21 on page 23), enter 5 (Allocate/initialize task history datasets). Enter the names of that CICS regions that you want to collect task history data for in the Region Name column. You can return to this panel to edit your selection later to remove or reallocate the list of your CICS regions.
2. Press Enter when you have completed the list. This generates JCL that you should review, edit, submit the job, and expect a return code of zero. Change the job name to, for example, the name of the member of the PDS to track the job logs.

3. From the Configure OMEGAMON II for CICS panel, enter 6 (Install/update CICS global data area modules). This panel contains selections that assist you to create and maintain the OMEGAMON II for CICS Global Data Areas (GDA).

   You use a GDA to specify monitoring options for one or more CICS regions. You specify these options using parameters which are described in the GDA edit help member, KC252DG1. Each set of monitoring options (GDAs) is identified by a two-character suffix, \textit{nn}.

   The parameters for a user-installed GDA are identified as KC2GLB\textit{nn}. A null or single character suffix is valid. A default set of monitoring options is shipped in a global named KC2GLB. If no global is installed or specified in the CICS JCL, the default is used.

   For any region that requires a set of monitoring options different from the installation default, you can create a suffixed global named KC2GLB\textit{nn} for that region. You must add a corresponding KC2GLB\textit{nn} DD DUMMY statement to the CICS JCL to identify the suffixed global to use.

   If no KC2GLB\textit{nn} DD statement is added to the CICS JCL and no KC2GLB member is present, a default is used.

\textbf{Figure 24. Task history data set allocation panel}

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
Region & Cluster & Description & Action \\
\hline
CICSHAC1 & 1 & CICS AOR 1 & ALLOC \\
CICSHAC2 & 1 & CICS AOR 2 & ALLOC \\
CICSHTC1 & 1 & CICS TOR & ALLOC \\
\hline
\end{tabular}
\end{table}

Press \textbf{END} to generate JCL for all actions.
4. From the Configure OMEGAMON II for CICS panel, enter 7 (Modify menu system command security). This is an optional step. This creates JCL that can be used to modify the security of your OMEGAMON platform. See IBM Tivoli OMEGAMON II for CICS: Configuration and Customization Guide for more details.

5. From the Configure OMEGAMON II for CICS panel, enter 8 (Install Candle Subsystem). This is an optional step. The Candle Subsystem is an MVS subsystem that enables OMEGAMON to monitor dynamic device activity. The Candle Subsystem runs in its own address space providing dynamic I/O information to IBM products.

6. From the Configure OMEGAMON II for CICS panel, enter 9 (Run migration utility) This is an optional step.
Configuring Tivoli OMEGAMON XE for CICS on z/OS

This topic describes the procedures that are necessary to create a Monitoring Agent and link it to the Candle Management Server that is in the same z/OS image.

See the IBM Tivoli OMEGAMON Platform: Configuring Candle Management Server on z/OS for detailed information on configuring a Candle Management Server.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to the runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:

```
---------------------------- RUN MIGRATION UTILITY -----------------------------
COMMAND ===>

This panel lets you migrate to your V550 system, elements that you already configured in a previous version. Be sure that the system you are migrating from is not running during this process.

Enter the runtime high-level qualifiers you used when you configured the previous version:
Non-VSAM ==> VSAM ==>

Enter the number of OMEGAMON II address space copies when you configured the previous version:
Copies of OMEGAMON II address spaces ==> (1-16)
```

```
Enter=Next  F1=Help  F3=Back
```

Figure 27. Run migration utility panel

Now, continue to “Configuring Tivoli OMEGAMON XE for CICS on z/OS.”

Related reference
Chapter 8, “Collecting and storing historical data,” on page 147

Figure 28. Product component selection panel
2. Enter 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). To configure the products you have installed, follow the instructions on each panel. Help is available for each panel by pressing F1.

When you finish configuring one product, press F3 to return to the Product Component Selection Menu. Repeat this process to configure all of your products. The panel looks like this:

```
----- CONFIGURE IBM TIVOLI OMEGAMON XE FOR CICS ON Z/OS / RTE: RTEname ----
OPTION ===> Last selected
Perform the appropriate configuration steps in order: Date Time

If you have defined a CMS in this RTE that this Agent will communicate with, select option 1.
1 Register with local CMS 05/05/04 16:18
2 Configure persistent datastore (Optional) 05/05/04 16:25

If defining an Agent, select option 3, then select the appropriate section(s) below to configure the desired address space.
3 Specify configuration parameters
To run in an Agent address space: (Recommended)
4 Specify Agent address space parameters
5 Create runtime members
6 Configure persistent datastore (Optional)
To run in the CMS address space: (Alternative)
7 Install Agent into local CMS 05/05/04 16:27
8 Complete the configuration 05/05/04 15:09
F1=Help F3=Back
```

Figure 29. Configure IBM TIVOLI OMEGAMON XE for CICS on z/OS

3. Enter 1 (Register with the local Candle Management Server). This creates JCL that you should review, edit and submit. You should expect a zero return code.

In this configuration the Monitoring Agent is in a separate address space from the Candle Management Server but located in the same z/OS image. This job registers the Tivoli OMEGAMON XE for CICS on z/OS to the local CMS.

Note: This option also applies if the Monitoring Agent is running in another RTE and connects to the Candle Management Server in this RTE.

4. For information about the configuration of a Monitoring Agent, see "Configuring a Monitoring Agent" on page 31.

If you want to collect system history data you should create a persistent data store. For information about the creation of a persistent data store, see "Configuring a persistent data store (Tivoli OMEGAMON XE for CICS on z/OS)." This is an optional step.

If not, continue with "Configuring a Monitoring Agent" on page 31.

Configuring a persistent data store (Tivoli OMEGAMON XE for CICS on z/OS)

Persistent data stores are associated with each Candle Management Server, Tivoli OMEGAMON XE for CICS on z/OS, and each Monitoring Agent. You should include a persistent data store for the Candle Management Server. However the data stores
for Tivoli OMEGAMON XE for CICS on z/OS and the Monitoring Agent are optional and depend whether you plan to collect system historical data.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS) > C (Adjacent to your RTE) > 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS panel. This displays the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS panel (Figure 32 on page 32).

1. To Configure Persistent Data Stores, from the Configure Tivoli OMEGAMON XE for CICS on z/OS panel, enter 2 (Configure persistent datastore). This displays the Specify Persistent data store values panel:

```
--------------------- SPECIFY PERSISTENT DATASTORE VALUES ---------------------
COMMAND ==>
The following values are used to allocate and maintain Persistent Datastore for standalone agents. We recommend the same maintenance procedure prefix for all your RTEs.

  Maintenance procedure prefix ==> KPDPROC
  Datastore file high-level prefix ==> High_level_qualifier
  Allocation volume ==> P2OMG1
  Allocation unit ==> 3390
  Allocation STORCLAS ==> 
  Allocation MGMTCLAS ==> 

Enter=Next  F1=Help  F3=Back

```

Figure 30. Specify persistent data store values panel

2. From the Specify Persistent data store values panel, press Enter. This displays the Allocate persistent data store menu. Enter 1 complete the values, > enter 2 and edit the job card, > enter 3 and edit the JCL, submit it and expect a return code of zero. Enter 4, and edit the JCL, submit it and expect a return code of zero.
When you have finished configuring the persistent data stores, continue with "Configuring a Monitoring Agent."

Related reference

Chapter 8, “Collecting and storing historical data,” on page 147

Configuring a Monitoring Agent

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S IBM Tivoli OMEGAMON XE for CICS on z/OS > C next to your RTE definition and press Enter. This displays the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS Panel.

1. Enter 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). To configure the products you have installed, follow the instructions on each Configuration tool panel. Help is available for each panel by pressing F1.

When you finish configuring one product, press F3 to return to the Product Component Selection Menu. Repeat this process to configure all of your products. The panel looks like this:
2. From the **Configure IBM Tivoli OMEGAMON XE for CICS on z/OS**, enter 3 (Specify configuration parameters) You can modify the work load allocation.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Register with local CMS</td>
<td>05/05/04</td>
<td>16:18</td>
</tr>
<tr>
<td>2</td>
<td>Configure persistent datastore (Optional)</td>
<td>05/05/04</td>
<td>16:25</td>
</tr>
</tbody>
</table>

If defining an Agent, select option 3, then select the appropriate section(s) below to configure the desired address space.

3. **Specify configuration parameters**

   To run in an Agent address space: (Recommended)
   4. Specify Agent address space parameters
   5. Create runtime members
   6. Configure persistent datastore (Optional)

   To run in the CMS address space: (Alternative)
   7. Install Agent into local CMS
   8. Complete the configuration

F1=Help F3=Back

---

**Figure 32. Configure IBM TIVOLI OMEGAMON XE for CICS on Z/OS panel**

2. **From the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS**, enter 3 (Specify configuration parameters) You can modify the work load allocation.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>05/05/04</td>
<td>16:27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>05/05/04</td>
<td>15:09</td>
</tr>
</tbody>
</table>

---

**Figure 33. Specify configuration parameters panel**

**Note:** This screen shows the defaults. This is only a suggestion. Follow the guidelines for your site.

3. **Enter 4 (Specify Agent Address space parameters)**

---

**Figure 34. Specify agent address space parameters panel**

---
4. Enter 5 (Create runtime members) This opens JCL that you can edit and submit. You should expect a return code of zero.

If you want to collect system history data you should create a persistent data store. For information about the creation of a persistent data store, see "Configuring a persistent data store Monitoring Agent." This is an optional step. Otherwise, continue with "Loading runtime libraries" on page 35.

**Configuring a persistent data store Monitoring Agent**

Persistent data stores are associated with each Candle Management Server, Tivoli OMEGAMON XE for CICS on z/OS, and each Monitoring Agent. You should include a persistent data store for the Candle Management Server. However the data stores for Tivoli OMEGAMON XE for CICS on z/OS and the Monitoring Agent are optional and depend whether you plan to collect system historical data.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS) > C (Adjacent to your RTE) > 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS panel (Figure 32 on page 32).

1. From the **Configure IBM Tivoli OMEGAMON XE for CICS on z/OS** panel, enter 6 (Configure persistent datastore) and press Enter. This opens the **Allocate persistent data store** panel, see **Figure 35**

   **Note:** If you do not intend to collect any system historical data, you can omit this step.

```
------------------------- ALLOCATE PERSISTENT DATASTORE MENU -------------------------
OPTION ===> Last selected 

Perform these configuration steps in order: Date Time

1 Modify and review datastore specifications
2 Create or edit PDS maintenance jobcard
3 Create runtime members
4 Edit and submit datastore allocation job
5 Complete persistent datastore configuration

F1=Help  F3=Back
```

**Figure 35. Allocate persistent data store panel**

2. Enter 1 (Modify and review datastore specifications) and press Enter. This panel controls the size, the placement and the number of datasets that comprise the Persistent Datastore. Review the default values and press **F3** to accept the values displayed.
Note: The settings on this screen are only suggestions. Follow the guidelines for your site.

**Group name**

Is the name of the group. Each group contains the number of data sets specified in the Group Count field.

**Data Sets lowlev**

Is the low-level qualifier of the data sets name. It is suffixed with a 1-character value (1-9, A-Z) that indicates the data set number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel:

- `high.level.qualifier.RKCPHIS1`
- `high.level.qualifier.RKCPHIS2`
- `high.level.qualifier.RKCPHIS3`

Where RKCPHIS$n$ is the low-level qualifier.

You may use the default values displayed or change them to meet your site's requirements.

**Group Count**

Indicates the number of data sets within the group.

*Note:* Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one, additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

**Est Cyl space**

This field is used to allocate the number of datastore files you specified for the group. The CT/PDS processing computes how much space is needed to allocate the group datastore files, and how much additional required space is needed to hold overhead information. Overhead information includes the product dictionary, table records, index records, and spare room for buffers that need to be reserved for when the data set is full.

**Backup, Export, and Extract**

These fields are used for datastore maintenance functions. Specify Y to turn on one of these maintenance functions for a group.
You can use the Backup facility if you want to keep old history data. This facility does an MVS IEBGENER request to make an exact copy of the data set being maintained. It is a simple copy of the data set to either tape or DASD. A backed-up file also has the advantage that nothing has to be done to the file to dynamically make the data available to the Persistent Datastore again.

Each group contains the number of data sets specified in the Group Count field. The Datasets Lowlev is suffixed with a 1-character value (1-9, A-Z) that indicates the dataset number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel, the PD#PJH job creates the Persistent Datastore members that make reference to these datastore files.

3. Enter 2 (Create or edit PDS maintenance jobcard). Edit the job card and press Enter. This specifies the job card to be used for the Persistent Datastore (PDS) KPDPROC1, KPDPROCC and KPDPROC2 maintenance jobs. The job card member (KPDJOBC) is created in the high.level.qualifier.RKANSAM library.

4. Enter 3 (Create runtime members). This opens JCL that you can edit and submit. You should expect a return code of zero. This job creates the persistent datastore members.

5. Enter 4 (Edit and submit datastore allocation job). This opens JCL that you can edit and submit. You should expect a return code of zero. This job allocates and initializes all the data sets required for this product’s persistent datastore.

**Note:** This job is applicable to define a brand new PDS configuration. If the PDS data sets already exist, then delete or rename this product’s persistent datastore files if you want the configuration tool to re-allocate and re-initialize the datasets for this product’s persistent datastore.

6. Enter 5 (Complete persistent datastore configuration). This describes the steps that you need to take to copy the data sets that you have created to your procedures libraries. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see “Completing the configuration” on page 36.

When you have finished configuring the persistent data stores, continue with "Loading runtime libraries."

**Related reference**
Chapter 8, “Collecting and storing historical data,” on page 147

---

**Loading runtime libraries**

You **must** load the runtime libraries after you:

- Install and configure the products you want in a new RTE
- Install and configure an additional product in an existing RTE
- Install maintenance, whether or not you reconfigure a product
- Change the configuration of Tivoli OMEGAMON XE for CICS on z/OS.

**Note:** The load job requires exclusive access to the runtime libraries.

Follow these steps to load the runtime libraries from the SMP/E target libraries.
1. Enter the Configuration tool and from the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.

2. On the **Product Selection** Menu, enter S in the **Actions** field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. The Configuration tool displays the Runtime Environments (RTEs) panel.

3. Type L next to the RTE for which you want to load the runtime libraries and press Enter.

   **Note:** If you are sharing RTEs, both the master RTE and the sharing RTE must be loaded.

   Review the JCL and submit the job. Verify that the job completes successfully and that the return code is 04 or less.

4. When you are finished loading the runtime libraries, press F3 to return to the Main Menu.

   Now continue with "Completing the configuration."

### Completing the configuration

The configuration tool created started task procedures in RKANSAM. These must be copied to your procedure library. From the Runtime environments panel, Enter 8 (Complete the configuration) next to your runtime definition. This describes the steps that you have to follow to ensure that you have the definitions that have been created in the configuration in your runtime environment. You can do some of these steps using the utilities provided within the Configuration environment.

To update your started task library use the following steps:

1. From the Run Time environment panel, enter Z (Utilities) adjacent to your runtime definition. This accesses a number of utilities.

   **RTE UTILITY MENU / RTE: RTEname**

   **OPTION ===>

   Specify the number of the desired utility.

   1. Create batch mode parameters
   2. Create System Variable parameter member
   3. Create System Variable VTAM major node rename job
   4. Create VTAM major node (one node for all products)
   5. Install product provided situations for distributed products
   6. Upgrade product provided situations
   7. Generate sample transport JCL
   8. Generate sample system procedure copy JCL
   9. Generate sample system VTAMLST copy JCL

   * Important: After the CBKVJH job runs, edit the RKNPAR(midlvl) parameter member and follow the directions to ensure the proper resolution of cross-system variables.

   F1=Help  F3=Back

2. From the Utilities panel, Enter 8 (Create the Copy JCL). On the next panel enter the name of your procedure library, for example, USER.PROCLIB. Press Enter.
Edit the JCL, submit the job. You should expect a return code of zero. This generates JCL to create a member called KCISYPJB in high.level.qualifier.rtename.RKANSAM.

3. Edit KCISYPJB and submit the job. This job copies all the required started tasks from your RKANSAM library to the specified procedure library. You should expect a return code of zero. Looking through the code you will see the names of the started tasks that have been created during the configuration. There are started tasks for:
   - Candle Management Server
   - OMEGAMON II for CICS
     - The Menu
     - CUA
   - Monitoring Agent
   - End-to-End (ETE).

4. From the Utilities panel, Enter 9 (Create the VTAM definitions). Enter the name of your VTAM node, press Enter. This sample system copy JCL copies the VTAM definitions to VTAMLST. The Configuration tool created VTAM definitions in RKANSAM. You should copy the VTAM major node from RKANSAM to your system VTAMLST. This generates JCL to create a member called KCISYNJB in high.level.qualifier.rtename.RKANSAM.

5. Edit KCISYNJB and submit the job. This job copies all the required VTAM definitions from your RKANSAM library to the specified VTAMLST. You should expect a return code of zero.

6. All runtime libraries concatenated in the STEPLIB DDNAME must be APF-authorized.

7. Vary VTAM major node active. Vary the VTAM major node active, for example, V NET,ACT,ID=OMEGAAN

8. Edit the started task for your Monitoring Agent. Add the following statement the end of job: // RKCPXMnn DD DUMMY Where nn is a two digit value between 01-15 and is unique for your monitoring agent. This corresponds to the statement that you add to the CICS started job.

9. Contact your local security administrator to grant the appropriate authorizations.

Now, you can verify your installation and configuration, continue with "Modifying the CICS started task" on page 76 and "Verifying your configuration" on page 77.

If you are migrating data from previous releases or from OMEGAMON II to OMEGAMON XE, see Chapter 9, “Migrating,” on page 155.

Modifying the CICS startup JCL

You can access the information from the Configure OMEGAMON II for CICS panel, enter 4 (Complete the configuration). This provides information that you have to add to your the JCL for your CICS regions. It is summarized in the following points.

1. Add //KC2GLBnn DD DUMMY to your CICS started task. If you want to use the monitoring options in a suffixed global data area (GDA), you must add this DD statement to the CICS region JCL to identify the global.

2. Add //RKCPXMinn DD DUMMY to your CICS started task. If you want to use other than the default OMEGAMON II address space pair (the defaults here are CANSOC0 and CANSC20 as set on Configure OMEGAMON II for CICS option 1) to monitor a CICS region, you must add this DD statement to the CICS region JCL to identify the address space pair.
3. Add //RKCPXMnn DD DUMMY to your CICS started task.

4. Add the program KOCOME00. Program KOCOME00 is the only program loaded from your CICS startup JCL’s DFHRPL concatenation. You can copy this program to a separate DFHRPL to reduce PDS directory search times. If you include program KOCOME00 in your PLTPI, you can ensure that the OMEGAMON II address space is active before your CICS region completes initializing. To do this, add the following DD statement to the CICS startup JCL:

//OCCIREQnnn DD DUMMY

After you add the DD statement, program KOCOME00 checks the cross-memory interface task (XMIT) is running as a subtask of the menu system. If the subtask is active, initialization continues. If the subtask is not active, the following WTOR message appears:

OC0806: XMC R OCCIREQ SPECIFIED IN THE STARTUP JCL BUT RK2XMnn NOT ACTIVE.
REPLY ABEND, IGNORE, OR RETRY.

Where nn is the suffix specified in the //RKC2XMnnn DD DUMMY statement in the CICS startup JCL or, if no suffix was specified, by the default (00).

5. Add a DD statement for RKANMOD and concatenate the OMEGAMON II load library to your DFHRPL DD statement. Here is an example of the additional statements:

//DFHRPL......
//:
://
://
/#******************************************************************************
# OMEGAMON FOR CICS DATASETS
#******************************************************************************
:// DD DISP=SHR,DSN=high.level.qualifier.TKANMOD
:// DD DISP=SHR,DSN=high.level.qualifier.RTEnamc.RKANMOD
:// RKANMOD DD DISP=SHR,DSN=high.level.qualifier.TKANMOD
:// DD DISP=SHR,DSN=high.level.qualifier.mid_level_qualifier.RKANMOD
:// RK2XMnn DD DUMMY
:// RKCPXMnn DD DUMMY
://OCCIREQ DD DUMMY
/#*

Now you have completed configuring IBM Tivoli OMEGAMON XE for CICS on z/OS, you should install the CandleNet Portal Server and CandleNet Portal client on your workstation. When you have done this continue with “Verifying the configuration.”

Verifying the configuration

Now that you have completed the configuration you can verify that it has been successful. Initially you can check that the logs generated from the jobs are clean and contain no error messages.

Verification involves:

- Start three started tasks on your z/OS system:
  - Candle Management Server
  - OMEGAMON II for CICS
  - Monitoring Agent
- Start your CICS regions.
- Starting the CandleNet Portal Server through Manage Candle Services from your workstation.
Starting the CandleNet Portal through **Manage Candle Services** from your workstation.

To do this:
1. Start the started task for Candle Management Server, `/S taskname`, and check the log for any errors.
2. Start the started task for OMEGamon II for CICS, `/S taskname`, and check the log for any errors. Start both the menu and the CUA tasks. The CUA is optional.
3. Start the started task for your Monitoring Agent, `/S taskname`, and check the log for any errors.
4. On your workstation start **Manage Candle Services. Start > All programs > Candle OMEGamon XE > Manage Candle Services.**

![Manage Candle Services](image)

*Figure 37. Manage Candle Services*

5. Start the CandleNet Portal Server. Right-click > **Start**.
6. Start the CandleNet Portal. Right-click > **Start**.

When CandleNet Portal opens you can expand the navigator pane to see the list of your CICS regions.
Chapter 3. Configuring a local Candle Management Server on a distributed system

This procedure uses many of the steps described in Chapter 2, “Configuring Tivoli OMEGAMON XE for CICS on z/OS in a single z/OS image,” on page 7. The key difference is that you install and configure your Candle Management Server on a distributed system. On your z/OS system you configure only a monitoring agent on each z/OS system where you are monitoring a CICS region.

For your convenience all the steps are described as if you were installing Tivoli OMEGAMON XE for CICS on z/OS for the first time. It is assumed that you have set up your configuration tool as described in Chapter 1, “Configuration overview,” on page 1.

Note: In this section, the procedure installs and configures the Candle Management Server, CandleNet Portal Server, and CandleNet Portal on the same workstation. However you can install these components on three separate workstations.

The two major configuration steps in this process include the following:

Figure 38. A configuration with the Candle Management Server on a distributed platform monitoring CICS regions on a z/OS image
Step 1 - Installing and configuring Candle Management Server, CandleNet Portal, and CandleNet Portal Server on a workstation.

“Installing Candle Management Server on Windows XP” and this includes the installation of the Candle Management Server on a windows system.

Step 2 - Configuring Monitoring Agent on z/OS

This involves:
1. Setting up a runtime environment, see "Introduction to runtime environments" on page 55.
2. Configuring OMEGAMON II for CICS, see "Configuring Tivoli OMEGAMON II for CICS" on page 61
3. Configuring just a Monitoring Agent as part of Tivoli OMEGAMON XE for CICS on z/OS, see "Configuring Tivoli OMEGAMON XE for CICS on z/OS for a Candle Management Server on a distributed system" on page 66

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**Installing Candle Management Server on Windows XP**

This section describes the background, and procedures that you should adopt when installing and configuring CandleNet Portal on a Windows XP Professional platform.

The installation and configuration processes described in this information are limited to Windows XP Professional Edition with Support pac 1.

**Note:** A fuller account of this process is found in the *IBM Tivoli OMEGAMON Platform: Installing and Setting up OMEGAMON Platform and CandleNet Portal on Windows and UNIX* manual.

This configuration installs a hub Candle Management Server on the same Windows workstation as your CandleNet Portal Server and CandleNet Portal. However if you decide to run the Candle Management Server on a separate Windows platform, install them in the sequence listed as follows:
1. Hub Candle Management Server
2. CandleNet Portal Server
3. CandleNet Portal Desktop

After the Candle Management Server has been installed, the other components can be installed in any sequence.

Other platforms where you can install Candle Management Server include AIX, Solaris, and HP/UX.

**Checklist: Before you start**

There are a number of steps that you may have already carried out. They include:

<table>
<thead>
<tr>
<th>Task</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installing a database on your Windows workstation.</td>
<td>&quot;Installing DB2 UDB&quot; on page 134</td>
</tr>
</tbody>
</table>

*IBM Tivoli OMEGAMON Platform: Installing and Setting up OMEGAMON Platform and CandleNet Portal on Windows and UNIX.*
Deploying CandleNet Portal

As with other client and server applications, components of CandleNet Portal can be installed on the same machine; however, it is more likely that you will install each component on a separate machine in your network.

To deploy CandleNet Portal at your site:

- Install at least one CandleNet Portal Server for every hub Candle Management Server. You can have more than one CandleNet Portal Server connected to the same hub Candle Management Server, for example, to provide a separate test and production environment.

  **Note:** Install the CandleNet Portal Server on the same machine as the Warehouse Proxy, if possible, for ease of administration. The CandleNet Portal Server requires its own “Data Warehouse data” source if it is not installed on the same machine as the Warehouse Proxy.

For CandleNet Portal, begin by installing and configuring the CandleNet Portal Server and one Desktop Client application. Always install the CandleNet Portal Server first. Before installing the CandleNet Portal Server, make sure a hub Candle Management Server has been installed. After you verify that you can communicate properly with your supported Candle products, install additional clients on as many machines as you would like.

Configuring Candle Management Server on Windows

This procedure installs three components on your workstation:

- Candle Management Server
- CandleNet Portal Server
- CandleNet Portal, both the desktop and the browser version.

This procedure follows the steps that are necessary to install and configure a Candle Management Server on your local workstation.

Follow these steps:

1. Log onto Windows using an ID with Administrator authority and close any running applications.
2. Insert the **IBM Tivoli OMEGAMON Platform** CD into your CD ROM drive. Installation begins automatically.
If the installer does not start, open the Windows directory on your CD and run setup.exe.
If setup.exe initialization fails, you may not have enough free disk space to decompress the setup files.

3. From the **Welcome to IBM Tivoli OMEGAMON Platform** window click **Next**. The Software License Agreement is displayed, read the software license agreement.

4. From the Software License window, click **Accept** The Choose Destination Location dialog is displayed. The default is c:\Candle.

5. From **Select Features** window (Figure 39), select **Candle Management Server**, **CandleNet Portal Server**, and **CandleNet Portal Desktop Client**. Click **Next**.

![Figure 39. Select Features window, CandleNet Portal](image)

6. From **Select Program** window accept the defaults and click **Next**.
7. From **Start Copying Files** window, click **Next**. At the end of this process the **Setup Type** window is displayed.
8. From **Setup Type** window (Figure 40 on page 45), select Configure CandleNet Portal, Configure Candle Management Server, and Launch Manage Candle Services..... . Click **Next**.
9. On the Define CNP Host Information window, check that the name is the name of the host machine where you are installing CandleNet Portal Server. Click Next. The CandleNet Portal Server Configuration window is displayed. This should not include a domain name, such as ibm.com.

Figure 40. Setup Type window, CandleNet Portal

Figure 41. Define CNP Host Information window, CandleNet Portal
10. Click **Next**. A pop-up window is displayed, **CNPS Data Source Configuration Parameters**.

![CNPS Data Source Config Parameters](image)

**Figure 42. CNPS Data Source Config Parameters dialog**

Enter your DB2 password and a password for the CNPS database user. Keep these passwords the same, it makes life easier. The details of this process are stored in the log file called `c:\candle\install\cnps_odbc.log`. This step takes a short time.

**Note:** For security reasons you should change the DB2 administrative userid and password. If the DB2 userid and password are changed after the installation of CandleNet Portal Server then CandleNet Portal Server will stop working. See “Installing DB2 UDB” on page 134 for details of the consequences of changed passwords.

11. From the **CNPS Data Source Configuration Parameters**, click **OK**. The **CNP Server Configuration** window appears.

![CNP Server Configuration](image)

**Figure 43. CNP Server Configuration dialog**

12. For this simple configuration select **Protocol 1** and TCP/IP. Click **OK**. The **CNP Server Configuration** window (Figure 44 on page 47) is displayed.
13. Enter the host name of the machine where your Candle Management Server is defined. In this case it is the name of your workstation without the domain name. As an alternative you can enter localhost. Enter the port number that you will be using. You can keep the port number the same as the port number for your z/OS host, though this is not essential. Click OK. The Candle Management Server Configuration window (Figure 45) is displayed.

14. Accept the defaults and click OK. The Hub CMS configuration window (Figure 46 on page 48) is displayed.
15. Enter the hostname and the port number of the agent that this hub is connecting to. As this is on a different host it should be the fully qualified hostname. Leave the Entry Options as “Convert to upper case”. Click OK. This displays the Seed CMS (Figure 47) window.

Figure 46. Hub CMS configuration window

This adds the default definitions to your Candle Management Server database. Later you will be adding the predefined workspaces, situation and thresholds that relate to CICS to your database.

16. Select On this computer and click OK. You are prompted that your Candle Management Server has not been started and that it will be started to seed the data. The Select product to seed CMS window (Figure 48) is displayed.

Figure 47. Seed CMS dialog

Figure 48. Select Product to Seed CMS dialog
17. Select all the products and click **OK**. A seed data operation complete message appears and the **InstallShield Wizard Complete** window appears.

18. Click **Finish** and check the Readme.

Now, you have added the IBM Tivoli OMEGAMON platform to your workstation, you must configure at least one product on your workstation. To install the Tivoli OMEGAMON XE for CICS on z/OS, see “Configuring Tivoli OMEGAMON XE for CICS on Windows.”

**Configuring Tivoli OMEGAMON XE for CICS on Windows**

This procedure assumes that you have the IBM Tivoli OMEGAMON Platform and have configured it to use a local Candle Management Server installed on your workstation as described in “Configuring Candle Management Server on Windows” on page 43.

This installation and configuration procedure adds the IBM Tivoli OMEGAMON XE for CICS on z/OS enabling you to monitor your CICS regions.

To do this:

1. Log onto Windows using an ID with Administrator authority and close any running applications.

2. Insert the **IBM Tivoli Data Files for z/OS** CD into your CD ROM drive. Installation begins automatically.
   - If the installer does not start, go to your CD. Open the Windows directory and run setup.exe.
   - If setup.exe initialization fails, you may not have enough free disk space to decompress the setup files.

3. From the Welcome to **IBM Tivoli OMEGAMON XE for CICS on z/OS** window, click **Next**. The Software License Agreement is displayed, read the software license agreement.

4. From the Software License window, click **Accept**. The **Select Features** window (Figure 49 on page 50) is displayed. If this is the first time that you have installed CandleNet Portal and you followed the instructions in “Configuring Candle Management Server on Windows” on page 43, there should be three features available for selection: Candle Management Server, CandleNet Portal Server, and CandleNet Portal Desktop Client.
5. Select all three: Candle Management Server, CandleNet Portal Server, and CandleNet Portal Desktop Client. Click Next. This displays the Select Program folder window.

6. From the Select Program folder window, accept the settings and click Next. This displays the Start Copying files window.

7. From the Start Copying files window, click Next. This displays the Setup Type window (Figure 50 on page 51).

8. From the Setup Type window (Figure 50 on page 51), select Configure CandleNet Portal, Seed a Local/Remote Candle Management Server and Launch Manage Candle Services.... Click Next.
9. Click Next.

10. From Define CandleNet Portal Host Information window (Figure 51), enter the local hostname where your CandleNet Portal Server is defined. You can
enter localhost. You should not include the domain name of local machine. Click Next. The Candle Management Server Configuration window (Figure 52) is displayed.

![Candle Management Server Configuration window, CandleNet Portal](image)

**Figure 52. Candle Management Server Configuration window, CandleNet Portal**

11. From the Candle Management Server Configuration window, click OK. The Hub CMS Configuration window (Figure 53) is displayed.

![Hub CMS Configuration window, CandleNet Portal](image)

**Figure 53. Hub CMS Configuration window, CandleNet Portal**

Enter the hostname and the port number of the agent that this hub is connecting to. As this is on a different host it should be the fully qualified hostname. Leave the Entry Options as "Convert to upper case". Click OK.

12. From the Hub CMS Configuration window, click OK. This displays the Seed CMS dialog.

Enter the hostname and the port number of the agent that this hub is connecting to. As this is on a different host it should be the fully qualified hostname. Leave the Entry Options as "Convert to upper case". Click OK.
13. From the Seed CMS dialog, select **On this computer** and click **OK**. This displays the Select product to seed CMS dialog [Figure 55].

![Seed CMS dialog](image)

**Figure 54. Seed CMS dialog, CandleNet Portal**

This adds the predefined workspaces, situations, and thresholds to the database.

14. Click **Select All** and click **OK**. When the seeding has been completed the Seed data operation complete window [Figure 56] is displayed. It shows the names and location of the log files.

![Select Product to Seed CMS](image)

**Figure 55. Select product to seed CMS dialog, CandleNet Portal**

15. From the Seed data operation complete window, click **Next**. The InstallShield Wizard Complete window [Figure 57 on page 54] is displayed.

![Seed data operation complete](image)

**Figure 56. Seed data operation complete window, CandleNet Portal**

Chapter 3. Configuring a local Candle Management Server on a distributed system 53
16. Click **Finish**. Review the Readme file. The **Manage Candle Services** window is opens.

Now that you have installed and configured Candle Management Server, CandleNet Portal Server, and CandleNet Portal on your workstation, you need to configure a Monitoring Agent on z/OS. To do this go to "Configuring a monitoring agent to work with a Candle Management Server on a distributed system."

### Configuring a monitoring agent to work with a Candle Management Server on a distributed system

This process configures a monitoring agent to access the Candle Management Server that you is installed on your distributed system. It assumes that you have set up your Configuration tool as described in Chapter 1, "Configuration overview," on page 1.

**Step 1 - Configure a runtime environment**

This involves:
1. "Introduction to runtime environments" on page 55
2. "Adding runtime environments" on page 55
   a. "Specifying values on the Add Runtime Environment panels" on page 57
3. "Building runtime libraries (distributed Candle Management Server)" on page 61

**Step 2 - Configure OMEGAMON II for CICS.**

This involves:
1. "Configuring Tivoli OMEGAMON II for CICS" on page 61
2. "Allocating and initializing task history data sets" on page 64. This is optional depending whether you want to collect historical task data.
Step 3 - Configure the Monitoring Agent.

This involves:
1. "Configuring Tivoli OMEGAMON XE for CICS on z/OS for a Candle Management Server on a distributed system" on page 66.
2. "Configuring a persistent data store Monitoring Agent" on page 71. This step is optional depending whether you want to collect historical system data.

Step 4 - Loading the Libraries, modifying the CICS started job and completing the configuration

This involves:
1. "Loading runtime libraries" on page 74.
2. "Completing the configuration with a distributed Candle Management Server" on page 75.
3. "Modifying the CICS started task" on page 76.

Introduction to runtime environments

In this configuration you only need to create one runtime environment for the monitoring agent as shown in Table 4.

Table 4. Summary of the RTE used in this configuration

<table>
<thead>
<tr>
<th>Access to runtime libraries</th>
<th>Candle Management Server with or without persistent data stores</th>
<th>Monitoring Agent with or without persistent data stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hub</td>
<td>Remote</td>
<td></td>
</tr>
<tr>
<td>RTE</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Windows</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

A runtime environment provides access to the OMEGAMON libraries. Each Candle Management Server requires its own runtime environment and a Monitoring Agent requires its own runtime environment if it exists on a separate z/OS image to the Candle Management Server.

Adding runtime environments

Follow these steps to add a new runtime environment.
1. Access the Configuration tool. From the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed in this panel.

Figure 58. Product selection panel
2. On the Product Selection Menu, enter **S** in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. You can select only one product at a time for configuration.

**Note:** Actions A, B, C, and L must be entered in sequence for each RTE that contains the selected product. Base RTEs only require actions B and L. The Configuration tool displays the Runtime Environments (RTEs) panel. In this case there are none.

3. Type **A** (Add RTE) in the **Actions** field and type a name for your new RTE. The name is a unique identifier (up to 8 characters), automatically used as the mid-level qualifier for FULL and SHARING RTEs. You can optionally specify a mid-level qualifier for BASE RTEs.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter A (Add RTE).</td>
<td>This defines the RTE to the Configuration tool. This option creates a definition for the configuration tool only.</td>
</tr>
<tr>
<td>Enter B (Build libraries).</td>
<td>Generates a batch job to allocate the required runtime libraries for the selected product. This job is presented for your review and submittal. Action B must be performed for every RTE that will contain the selected product. This includes base RTEs.</td>
</tr>
<tr>
<td>Enter C (Configure).</td>
<td>Presents panels to collect the parameter values required to configure the selected product for this RTE. The RTE default values are used when applicable. A batch job is generated and presented for your review and submittal. Action C must be performed after Action B for every RTE that contains the selected product. You do not need to do action C for base RTEs.</td>
</tr>
<tr>
<td>Enter L (Load all product libraries after SMP/E).</td>
<td>Load all product libraries after SMP/E - Generates a batch job to load the runtime libraries from the SMP/E target libraries for this RTE. You must load the RTE libraries after SMP/E maintenance or product configuration, action C. <strong>Note:</strong> In a sharing-RTE type configuration, the master RTE and all other RTEs sharing the master RTE must be loaded.</td>
</tr>
<tr>
<td>Enter D (Delete).</td>
<td>Deletes the RTE. This RTE definition and associated configuration values are removed from CICAT and a batch job is created to delete the libraries.</td>
</tr>
<tr>
<td>Enter U (Update).</td>
<td>Displays current RTE values and indicates those you can change. To apply changes, you must use actions B,C and L in sequence for the affected products.</td>
</tr>
<tr>
<td>Enter V (View Values).</td>
<td>Displays current RTE values.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Enter Z (Utilities).</td>
<td>Displays a menu of selections for performing various useful processes for maintaining the RTE. The utilities installed are displayed.</td>
</tr>
</tbody>
</table>

4. Enter the type of RTE being created. In this case, start by creating a Base type. This is essential if you intend to add other RTEs using the sharing type later on. Valid types are:

- **FULL** Allocates both private and base libraries. Use this if only one RTE is defined for your environment, or if you add an RTE for a unique set of products.
- **BASE** Allocates base libraries only, and does not execute alone. Use this only in conjunction with SHARING RTEs populated with the same products.
- **SHARING** Allocates private libraries only. This type can share base libraries with a BASE or FULL RTE populated with the same products, or use SMP/E target libraries for its base libraries. Define one SHARING RTE for each z/OS image if you have multiple images.

5. (For SHARING RTEs only). Type the name of the BASE or FULL RTE from which this RTE will obtain its base library information. If SMP/E target libraries are to be shared, type `SMP`.

6. Type a description for this RTE, which may be any information that is useful for you and others at your site. Press Enter to add the definition of the RTE to the Configuration tool.

After specifying all required values on the Runtime Environments (RTEs) panel, press Enter and continue with "Specifying values on the Add Runtime Environment panels."

**Specifying values on the Add Runtime Environment panels**

Follow these steps to specify values to define your runtime environment.

1. On the first Add Runtime Environment panel, specify the following values to define the runtime environment. In Figure 59 on page 58 check the name of the runtime environment and the high level qualifier. Edit the JCL suffix and the STC prefix.

In this configuration enter N in response to the question "Will this RTE have a Candle Management Server"
Non-VSAM libraries

- Type the high-level qualifier.
- Type your site’s values for either the Volser/Unit parameters or the Storclas/Mgmtclas parameters.
- Indicate whether PDSE libraries are to be used.
- PDSEs do not require compression, and are not limited by a pre-defined number of directory entries. The default of N signifies that PDS libraries are to be used.

Note: Supply SMS values for libraries specified as PDSEs.

VSAM libraries

- Type the high-level qualifier.
- Type your site’s values for the Volser or the Storclas/Mgmtclas parameters.

Mid-level qualifier

- For FULL and SHARING RTEs, accept the mid-level qualifier default value (which is the RTE name you previously specified) or specify a unique mid-level qualifier.
- For BASE RTEs, specify a unique mid-level qualifier or optionally leave this field blank.

JCL suffix

Type a suffix for the JCL. The suffix (up to four characters) is appended to all JCL that is generated in INSTJOBS. The JCL suffix uniquely identifies the batch job members created by the Configuration tool for this RTE.

STC prefix

(FULL and SHARING RTEs only). Type a global STC Prefix (from 1–4 characters) to be used in building started tasks names for products in this RTE. The default is CANS.
SYSOUT class / Diagnostic SYSOUT class

Specify values for the non-diagnostic and diagnostic output DDNAMES.

Note: These values were previously hardcoded.

Load optimization

Indicate whether you want to optimize loading of this RTE. The default is N. Refer to the online help (F1) for more details.

Will the RTE have a Candle Management Server?

In this configuration the CMS is on your Windows workstation, enter N. The default of Y allocates Candle Management Server libraries.

You must enter the name of the Candle Management Server to be configured. It is used by the other components that need to communicate with this Candle Management Server. The name of the runtime environment is used as a default.

Copied from RTE

(FULL and SHARING RTEs only - Optional)

Type the name of an existing RTE, from which configuration values will be copied and used for this RTE.

Note: This procedure makes an exact copy of the existing RTE. If you will not be using the same products in the new RTE, we recommend that you not use this procedure.

Install National Language components?

(FULL and SHARING RTEs only - NLS products only)

Specify Y to install National Language Components in this RTE for all eligible products.

2. After specifying all required values on the first Add Runtime Environment panel, press Enter. In Figure 60 on page 60.
3. On the second Add Runtime Environment panel, for FULL and SHARING RTEs only, specify these values:

**Use OS/390 system variables?**
Specify Y if this RTE will use z/OS system variables.

See [“Enabling system variable support” on page 163](#) for more information on enabling system variable support.

**Security type**
Specify what, if any, security system is to be used for this RTE. The default is NONE. If ACF2 is specified, you must also type the name of the ACF2 macro library.

**VTAM communication values**
- Type a global VTAM applid prefix (from 1–4 characters) to be used in building the VTAM applids for products in this RTE. The default is CTD.
- Identify your VTAM network. This is defined in the NETID parameter of VTAMLST.
- Type the Logmode table name for LU6.2 logmode entries. The default is KDSMTAB1.
- Type the LU6.2 logmode for this RTE. The default is CANCTDCS.

**TCP/IP communication values**
- Type the TCP/IP host name of the z/OS system in which this RTE resides and the TCP/IP address of the host. Enter TSO HOMETEST to get these values.
- Type the started task name of the TCP/IP server.
- Type the address of the IP port. The default is 1918.
- Type the Interlink TCP/IP subsystem name (if applicable).
- Do not enter the fully qualified hostname.

**Note:** Enter V (View Values) to verify the RTE information and U (Update) to make the necessary changes.
When you have finished defining your runtime environment, continue with “Building runtime libraries” on page 14.

Building runtime libraries (distributed Candle Management Server)

After adding an RTE to your system, also you must run this procedure before configuring your product.

Follow these steps to build the runtime libraries.

1. From the Main Menu of the Configuration tool, enter 3 (Configure products) and 2 (Select product to configure) This displays the Runtime Environments (RTEs) panel.

2. Build the runtime libraries: Enter B in the Action column next to the RTE you are creating and press Enter. This displays the JCL that you should review.

   Note: You might need to add REGION=0M to the jobcard depending on your installation. Check with your system programmer. If you don’t you might be missing data sets later on.

3. Review the JCL and submit the job. A suggestion: change the jobname to match the member name so that you can easily identify the jobs later on.

4. Submit the job and check that the job completes successfully. All return codes should be zero.

When you are finished building the runtime libraries, continue with “Configuring Tivoli OMEGAMON II for CICS.”

Configuring Tivoli OMEGAMON II for CICS

So far you have created a Runtime Environment. This procedure configures OMEGAMON II for CICS.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to the runtime definition. This displays the Product Configuration Selection menu. see Figure 62 on page 62
2. From the Product Configuration Selection menu, enter 2 (OMEGamon II for CICS). The configuration panel looks like this:

![Product Configuration Selection Menu](image)

Figure 62. Product configuration selection panel

2. From the Product Configuration Selection menu, enter 2 (OMEGamon II for CICS). The configuration panel looks like this:

![Configure OMEGamon II for CICS](image)

Figure 63. Configure OMEGamon II for CICS

3. From the Configure OMEGamon II for CICS panel, enter 1 (Specify configuration values). In Figure 64 on page 63 check that the name of the started task for End-to-End (ETE) is correct and is unique for this RTE. Press Enter when complete.
a. Edit the parameters to meet your site’s requirements. In Figure 65 the STC prefix was derived from the value that you entered in Figure 59 on page 58 and the applid was the value you entered in Figure 60 on page 60. In this example the letter A was added to distinguish these values from others on in the same z/OS image. It is a local convention. Follow your site’s conventions.

Note: The screen shows some typical examples.

4. From the Configure OMEGAMON II for CICS panel, enter 2 (Allocate additional runtime datasets). There is nothing to do in this step.

5. From the Configure OMEGAMON II for CICS panel, enter 3 (Create runtime members). This creates JCL that you should review, edit and submit. You should expect a return code of zero. Change the job name to, for example, the name of the member of the PDS.

6. Copy procedures to PROCLIB. This describes a series of steps that copy procedures from the Configuration Tool to your PROCLIB and VTAM definitions to your VTAMLST. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see “Completing the configuration with a distributed Candle Management Server” on page 75.
When you have finished configuring the OMEGAMON II for CICS, continue with "Allocating and initializing task history data sets." This is an optional step. If you do not want to install task history data sets, continue with "Configuring Tivoli OMEGAMON XE for CICS on z/OS for a Candle Management Server on a distributed system" on page 66.

Allocating and initializing task history data sets

This procedure describes a series of optional steps that you can carry out to configure the following:

- Allocation and initialize task history data sets. If you intend to collect task history data, you must do this.
- Install or update CICS global data area modules.
- Modify menu system command security.
- Install a Candle subsystem.
- Run a migration utility.

You can return to these steps later. You do not have to install them all.

1. From the Configure OMEGAMON II for CICS panel (Figure 21 on page 23), enter 5 (Allocate/initialize task history datasets). Enter the names of the CICS regions that you want to collect task history data for in the Region Name column. You can return to this panel to edit your selection later to remove or reallocate the list of your CICS regions.

   2. Press Enter when you have completed the list. This generates JCL that you should review, edit, submit the job and expect a return code of zero. Change the job name to, for example, the name of the member of the PDS to track the job logs.

3. From the Configure OMEGAMON II for CICS panel, enter 6 (Install/update CICS global data area modules). This panel contains selections that assist you to create and maintain the OMEGAMON II for CICS Global Data Areas (GDA). You use a GDA to specify monitoring options for one or more CICS regions. You specify these options using parameters which are described in the GDA edit help member, KC252DG1. Each set of monitoring options (GDAs) is identified by a two-character suffix, \textit{nn}.

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|l|}
\hline
Region & Cluster & Description & Action \\
\hline
CICSHAC1 & 1 & CICS AOR 1 & ALLOC \\
\hline
CICSHAC2 & 1 & CICS AOR 2 & ALLOC \\
\hline
CICSHCT1 & 1 & CICS TOR & ALLOC \\
\hline
\end{tabular}
\caption{Task history data set allocation panel}
\end{table}
The parameters for a user-installed GDA are identified as KC2GLBnn. A null or single character suffix is valid. A default set of monitoring options is shipped in a global named KC2GLB. If no global is installed or specified in the CICS JCL, the default is used.

For any region that requires a set of monitoring options different from the installation default, you can create a suffixed global named KC2GLBnn for that region. You must add a corresponding KC2GLBnn DD DUMMY statement to the CICS JCL to identify the suffixed global to use.

If no KC2GLBnn DD statement is added to the CICS JCL and no KC2GLB member is present, a default is used.

```
4. From the Configure OMEGAMON II for CICS panel, enter 7 (Modify menu system command security). This is an optional step. This creates JCL that can be used to modify the security of your OMEGAMON platform.
See IBM Tivoli OMEGAMON II for CICS: Configuration and Customization Guide for more details.

5. From the Configure OMEGAMON II for CICS panel, enter 8 (Install Candle Subsystem). This is an optional step.
The Candle Subsystem is an MVS subsystem that enables OMEGAMON to monitor dynamic device activity. The Candle Subsystem runs in its own address space providing dynamic I/O information to IBM products.
```
From the Configure OMEGAMON II for CICS panel, enter 9 (Run migration utility) This is an optional step.

Now, continue to "Configuring Tivoli OMEGAMON XE for CICS on z/OS for a Candle Management Server on a distributed system."

Configuring Tivoli OMEGAMON XE for CICS on z/OS for a Candle Management Server on a distributed system

See the Candle Management Server on OS/390 and z/OS Configuration and Customization Guide for detailed information on configuring a Candle Management Server.

This procedure describes the configuration of a Monitoring Agent that accesses a Candle Management Server on a distributed platform.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Runtime Environments Panel.
1. From the Runtime Environments panel, enter **C** in the action column adjacent to the runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:

```
---------------------- PRODUCT CONFIGURATION SELECTION MENU ----------------------
COMMAND ===>
The following list of components requires configuration to make the product operational. Refer to the appropriate configuration documentation if you require additional information to complete the configuration.
To configure the desired component, enter the selection number on the command line. You should configure the components in the order they are listed.

COMPONENT TITLE
1 Candle Management Server
2 OMEGAMON II for CICS
3 IBM Tivoli OMEGAMON XE for CICS on z/OS
```

**Figure 70. Product configuration selection menu**

2. Enter **3** (IBM Tivoli OMEGAMON XE for CICS on z/OS). To configure the products you have installed, follow the instructions on each Configuration tool panel. Help is available for each panel by pressing **F1**.

Once you finish configuring one product, press **F3** to return to the Product Component Selection Menu. Repeat this process to configure all of your products. The panel looks like this:

```
------ CONFIGURE IBM TIVOLI OMEGAMON XE FOR CICS ON Z/OS / RTE: RTester ----
OPTION ===>
Perform the appropriate configuration steps in order: Last selected
            Date       Time
If you have defined a Candle Management Server in this RTE that this Agent will communicate with, select option 1.
  1 Register with local Candle Management Server
  2 Configure persistent datastore (Optional)
If defining an Agent, select option 3, then select the appropriate section(s) below to configure the desired address space.
  3 Specify configuration parameters
      To run in an Agent address space: (Recommended)
        4 Specify Agent address space parameters
        5 Create runtime members
        6 Configure persistent datastore (Optional)
      To run in the CMS address space: (Alternative)
        7 Install Agent into local CMS
        8 Complete the configuration
F1=Help   F3=Back
```

**Figure 71. Configure IBM TIVOLI OMEGAMON XE for CICS on Z/OS**

3. Enter **3** (Specify configuration parameters). You can modify the work load allocation.
Note: This screen shows the defaults. These are only suggestions. Follow the guidelines for your site.

4. Enter 4 (Specify Agent address space parameters). Enter N in the "Connect to CMS in the RTE". The name of the CMS will be blank at this stage. As we specified TCP/IP on the workstation, enter IPPIPE for protocol 1.

Note:
IPPIPE is the equivalent to TCP communications and IP is the equivalent to UDP communications.

Figure 72. Specify configuration parameters panel

The following information is needed to define the Agent address space:

Agent started task ==> agent_started_task_name
Connect to CMS in this RTE ==> N (Y, N)
Name of Primary CMS ==> CMSName

Specify communication protocols in priority sequence:
- Protocol 1 ==> IPPIPE (SNA, IP, IPPIPE)
- Protocol 2 (optional) ==> (SNA, IP, IPPIPE)
- Protocol 3 (optional) ==> (SNA, IP, IPPIPE)

Figure 73. Specify agent address space parameters panel

5. To specify the name of the hub Candle Management Server, enter F10 (CMS list). This shows the Communications Selection panel which lists the runtime environments that are defined for a Candle Management Server. Because your Candle Management Server is on a distributed system it is not listed here.
6. To define your hub Candle Management Server, enter F5 (Advanced) from the Communications Selection panel. This shows the Specify Agent Primary Candle Management Server values panel. Enter the name of your Candle Management Server. It starts with HUB_. Enter the Networks ID, the fully qualified hostname and the IP address of your workstation. Enter the portnumber for the IP.PIPE only.

7. From the Specify Agent Primary Candle Management Server values panel, press Enter. This displays the Specify agent address space parameters panel. The name of the started task and the CMS name are already completed. Enter IP.PIPE for protocol 1.
8. From the **Specify Agent Address Space Parameters** panel, press Enter. At the end of this step, you are returned to the **Configure IBM Tivoli OMEGAMON for CICS** panel.

9. On the **Agent Address Space parameters** panel, press Enter. This shows the **Specify Agent IP.PIPE Configuration Values** as shown. Confirm the values and press Enter. When this is complete you are returned to the **Configure IBM Tivoli OMEGAMON for CICS** panel.

10. From **Configure IBM Tivoli OMEGAMON for CICS** panel, enter 5 (Create runtime members). This opens JCL that you can review, edit, and submit. You should expect a return code of zero. This completes the configuration stage.

11. To Configure Persistent Data Stores, from the **Configure Tivoli OMEGAMON XE for CICS**, enter 6. This displays the **Specify Persistent data store values panel**.
The following values are used to allocate and maintain Persistent Datastore for standalone agents. We recommend the same maintenance procedure prefix for all your RTEs.

<table>
<thead>
<tr>
<th>Maintenance procedure prefix</th>
<th>==&gt; KPDPROC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Datastore file high-level prefix</td>
<td>==&gt; High_level_qualifier</td>
</tr>
<tr>
<td>Allocation volume</td>
<td>==&gt; P2OMG1</td>
</tr>
<tr>
<td>Allocation unit</td>
<td>==&gt; 3390</td>
</tr>
<tr>
<td>Allocation STORCLAS</td>
<td>==&gt;</td>
</tr>
<tr>
<td>Allocation MGMTCLAS</td>
<td>==&gt;</td>
</tr>
</tbody>
</table>

Enter=Next  F1=Help  F3=Back

12. From the **Specify Persistent data store values** panel, press Enter. This displays the Allocate persistent data store menu. Enter 1 to complete the values, > enter 2 and edit the job card, > enter 3 and edit the JCL, submit it and expect a return code of zero. Enter 4, and edit the JCL, submit it and expect a return code of zero.

You can leave the completion step until the end of the configuration, see "Completing the configuration with a distributed Candle Management Server" on page 75.

**Note:** If you are running two Agent instances on the same z/OS image, you must assign a unique RKCPXMnn to each monitoring agent.

**Configuring a persistent data store Monitoring Agent**

Persistent data stores are associated with each Candle Management Server, Tivoli OMEGAMON XE for CICS on z/OS, and each Monitoring Agent. You should include a persistent data store for the Candle Management Server. However the data stores for Tivoli OMEGAMON XE for CICS on z/OS and the Monitoring Agent are optional and depend whether you plan to collect system historical data.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) &gt; 2 (Select product to configure) &gt; S (IBM Tivoli OMEGAMON XE for
CICS on z/OS) > C (Adjacent to your RTE) > 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS panel (Figure 32 on page 32).

1. To Configure Persistent Data Stores, from the Configure Tivoli OMEGAMON XE for CICS, enter 6. This displays the Specify Persistent data store values panel. Confirm that the high level qualifier and the Allocation volumes are correct. Edit them if necessary.

```
----------------------- SPECIFY PERSISTENT DATASTORE VALUES -----------------------
COMMAND ==>
The following values are used to allocate and maintain Persistent Datastore for standalone agents. We recommend the same maintenance procedure prefix for all your RTEs.

  Maintenance procedure prefix  ==> KPDPROC
  Datastore file high-level prefix  ==> Hilev
  Allocation volume  ==> volser
  Allocation unit  ==> 3390
  Allocation STORCLAS  ==>
  Allocation MGMTCLAS  ==>

Enter=Next  F1=Help  F3=Back
```

Figure 77. Specify persistent datastore values panel

2. From the Specify Persistent data store values panel, press Enter. This displays the Allocate persistent Datastore Menu. Enter 1 complete the values, > enter 2 and edit the job card, > enter 3 and edit the JCL, submit it and expect a return code of zero. Enter 4, and edit the JCL, submit it and expect a return code of zero.

```
----------------------- ALLOCATE PERSISTENT DATASTORE MENU -----------------------
OPTION ==> Last selected
          Date  Time
          
1  Modify and review datastore specifications
2  Create or edit PDS maintenance jobcard
3  Create runtime members
4  Edit and submit datastore allocation job
5  Complete persistent datastore configuration

F1=Help  F3=Back
```

3. Enter 1 (Modify and review datastore specifications) and press Enter. This panel controls the size, the placement and the number of data sets that comprise the Persistent Datastore. Review the default values and press F3 to accept the values displayed.
Note: The settings on this screen are only suggestions. Follow the guidelines for your site.

Group name
Is the name of the group. Each group contains the number of data sets specified in the Group Count field.

Data Sets lowlev
Is the low-level qualifier of the data sets name. It is suffixed with a 1-character value (1-9, A-Z) that indicates the data set number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel:

- `high.level.qualifier.RKC5HIS1`
- `high.level.qualifier.RKC5HIS2`
- `high.level.qualifier.RKC5HIS3`

Where RKC5HISn is the low-level qualifier.

You may use the default values displayed or change them to meet your site’s requirements.

Group Count
Indicates the number of data sets within the group.

Note: Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one, additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

Est Cyl space
This field is used to allocate the number of datastore files you specified for the group. The CT/PDS processing computes how much space is needed to allocate the group datastore files, and how much additional required space is needed to hold overhead information. Overhead information includes the product dictionary, table records, index records, and spare room for buffers that need to be reserved for when the data set is full.

Backup, Export, and Extract
These fields are used for datastore maintenance functions. Specify Y to turn on one of these maintenance functions for a group.

Figure 78. Persistent data store specifications panel

Note: The settings on this screen are only suggestions. Follow the guidelines for your site.

**Group name**
Is the name of the group. Each group contains the number of data sets specified in the Group Count field.

**Data Sets lowlev**
Is the low-level qualifier of the data sets name. It is suffixed with a 1-character value (1-9, A-Z) that indicates the data set number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel:

- `high.level.qualifier.RKC5HIS1`
- `high.level.qualifier.RKC5HIS2`
- `high.level.qualifier.RKC5HIS3`

Where RKC5HISn is the low-level qualifier.

You may use the default values displayed or change them to meet your site’s requirements.

**Group Count**
Indicates the number of data sets within the group.

Note: Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one, additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

**Est Cyl space**
This field is used to allocate the number of datastore files you specified for the group. The CT/PDS processing computes how much space is needed to allocate the group datastore files, and how much additional required space is needed to hold overhead information. Overhead information includes the product dictionary, table records, index records, and spare room for buffers that need to be reserved for when the data set is full.

**Backup, Export, and Extract**
These fields are used for datastore maintenance functions. Specify Y to turn on one of these maintenance functions for a group.
You can use the Backup facility if you want to keep old history data. This facility does an MVS IEBGENER request to make an exact copy of the data set being maintained. It is a simple copy of the data set to either tape or DASD. A backed-up file also has the advantage that nothing has to be done to the file to dynamically make the data available to the Persistent Datastore again.

Each group contains the number of data sets specified in the Group Count field. The Datasets Lowlev is suffixed with a 1-character value (1-9, A-Z) that indicates the dataset number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel, the PD#PJH job creates the Persistent Datastore members that make reference to these datastore files.

4. Enter 2 (Create or edit PDS maintenance jobcard). Edit the job card and press Enter. This specifies the job card to be used for the Persistent Datastore (PDS) KPDPROC1, KPDPROC2 and KPDPROC2 maintenance jobs. The job card member (KPDJOBC) is created in the high.level.qualifier.RKANSAM library.

5. Enter 3 (Create runtime members). This generates JCL that you can review, edit, and submit. You should expect a return code of zero. This job creates the persistent datastore members.

6. Enter 4 (Edit and submit datastore allocation job). This generates JCL that you can review, edit, and submit. You should expect a return code of zero. This job allocates and initializes all the data sets required for this product’s persistent datastore.

Note: This job is applicable to define a brand new PDS configuration. If the PDS data sets already exist, then delete or rename this product’s persistent datastore files if you want the configuration tool to re-allocate and re-initialize the datasets for this product’s persistent datastore.

7. Enter 5 (Complete persistent datastore configuration). This describes the steps that you need to take to copy the data sets that you have created to your procedures libraries. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see “Completing the configuration with a distributed Candle Management Server” on page 75.

When you have finished configuring the persistent data stores, continue with "Loading runtime libraries."

### Loading runtime libraries

You must load the runtime libraries after you:
* Install and configure the products you want in a new RTE
* Install and configure an additional product in an existing RTE
* Install maintenance, whether or not you reconfigure a product
* Change the configuration of Tivoli OMEGAMON XE for CICS on z/OS.

**Note:** The load job requires exclusive access to the runtime libraries.

Follow these steps to load the runtime libraries from the SMP/E target libraries.

1. Enter the Configuration tool and from the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.
2. On the Product Selection Menu, enter **S** in the **Actions** field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. The Configuration tool displays the Runtime Environments (RTEs) panel.

3. Type **L** next to the RTE for which you want to load the runtime libraries and press Enter.

   **Note:** If you are sharing RTEs, both the master RTE and the sharing RTE must be loaded.
   
   Review the JCL and submit the job. Verify that the job completes successfully and that the return code is 04 or less.

4. When you are finished loading the runtime libraries, press F3 to return to the Main Menu.

   Now go to "Completing the configuration with a distributed Candle Management Server."

**Completing the configuration with a distributed Candle Management Server**

The configuration tool created started task procedures in RKANSAM. These must be copied to your procedure library. From the Runtime environments panel, Enter **8** (Complete the configuration) next to your runtime definition. This describes the steps that you have to follow to ensure that you have the definitions that have been created in the configuration in your runtime environment. You can do some of these steps using the utilities provided within the Configuration environment.

To update your started task library use the following steps:

1. From the Run Time environment panel, enter **Z** (Utilities) adjacent to your runtime definition. This accesses a number of utilities.

   ```
   +---------------------------------------------------------------+
   | OPTION ====>        RTE UTILITY MENU / RTE: RTEname     |
   | Specify the number of the desired utility.                  |
   | 1  Create batch mode parameters                             |
   | 2  Create System Variable parameter member                  |
   | 3  Create System Variable VTAM major node rename job        |
   | 4  Create VTAM major node (one node for all products)       |
   | 5  Install product provided situations for distributed products |
   | 6  Upgrade product provided situations                      |
   | 7  Generate sample transport JCL                            |
   | 8  Generate sample system procedure copy JCL                |
   | 9  Generate sample system VTAMLST copy JCL                  |
   +---------------------------------------------------------------+
   | * Important: After the C8AVJH job runs, edit the RKANPAR(midlvl) parameter member and follow the directions to ensure the proper resolution of cross-system variables. |
   | F1=Help  F3=Back                                            |
   ```

2. From the Utilities panel, Enter **8** (Create the Copy JCL). On the next panel enter the name of your procedure library, for example, USER.PROCLIB. Press Enter. Edit the JCL, submit the job. You should expect a return code of zero. This generates some JCL to create a member called KCISYPJB in high.level.qualifier.rtename.RKANSAM.
3. Edit KCISYPJB and submit the job. This job copies all the required started tasks from your RKANSAM library to the specified procedure library. You should expect a return code of zero. Looking through the code you will see the names of the started tasks that have been created during the configuration. There are started tasks for:
   • OMEGAMON II for CICS
   • Monitoring Agent
   • End-to-End (ETE).

4. From the Utilities panel, Enter 9 (Create the VTAM definitions). Enter the name of your VTAM node, press Enter. This sample system copy JCL copies the VTAM definitions to VTAMLST. The Configuration tool created VTAM definitions in RKANSAM. You should copy the VTAM major node from RKANSAM to your system VTAMLST. This generates JCL to create a member called KCISYNJB in high.level.qualifier.rtename.RKANSAM.

5. Edit KCISYNJB and submit the job. This job copies all the required VTAM definitions from your RKANSAM library to the specified VTAMLST. You should expect a return code of zero.

6. All runtime libraries concatenated in the STEPLIB DDNAME must be APF-authorized.

7. Vary VTAM major node active. Vary the VTAM major node active, for example, V NET,ACT,ID=OMEGAAN

8. Edit the started task for your Monitoring Agent. Add the following statement the end of job: //RKCPXMn DD DUMMY Where nn is a two digit value between 01-15 and is unique for your monitoring agent. This corresponds to the statement that you add to the CICS started job.

9. Contact your local security administrator to grant the appropriate authorizations.

Now, you can verify your installation and configuration, continue with “Modifying the CICS started task” and “Verifying your configuration” on page 77.

If you are migrating data from previous releases or from OMEGAMON II to OMEGAMON XE, see Chapter 9, “Migrating,” on page 155.

Modifying the CICS started task

You can access the information from the Configure OMEGAMON II for CICS panel, enter 4 (Complete the configuration). This provides information that you have to add to your JCL for your CICS regions. It is summarized in the following points.

1. Add //KC2GLBnn DD DUMMY to your CICS started task. If you want to use the monitoring options in a suffixed global data area (GDA), you must add this DD statement to the CICS region JCL to identify the global.

2. Add //RKC2XMnn DD DUMMY to your CICS started task. If you want to use other than the default OMEGAMON II address space pair (the defaults here are CANSOC0 and CANSC20 as set on Configure OMEGAMON II for CICS option 1) to monitor a CICS region, you must add this DD statement to the CICS region JCL to identify the address space pair.

3. Add //RKCPXMnn DD DUMMY to your CICS started task.

4. Add the program KOCOME00. Program KOCOME00 is the only program loaded from your CICS startup JCL’s DFHRPL concatenation. You can copy this program to a separate DFHRPL to reduce PDS directory search times. If you include program KOCOME00 in your PLTPI, you can ensure that the
OMEGAMON II address space is active before your CICS region completes initializing. To do this, add the following DD statement to the CICS startup JCL:

```
//OCCIREQnn DD DUMMY
```

After you add the DD statement, program KOCOME00 checks the cross-memory interface task (XMIT) is running as a subtask of the menu system. If the subtask is active, initialization continues. If the subtask is not active, the following WTOR message appears:

```
OC0806: XMCR OCCIREQ SPECIFIED IN THE STARTUP JCL BUT RKC2XMnn NOT ACTIVE.
      REPLY ABEND, IGNORE, OR RETRY.
```

Where nn is the suffix specified in the //RKC2XMnn DD DUMMY statement in the CICS startup JCL or, if no suffix was specified, by the default (00).

5. Add a DD statement for RKANMOD and concatenate the OMEGAMON II load library to your DFHRPL DD statement. Here is an example of the additional statements:

```
//DFHRPL......
//:
//:
/***
//OMEGAMON FOR CICS DATASETS
//*****************************************************************************
// DD DISP=SHR,DSN=high.level.qualifier.TKANMOD
// DD DISP=SHR,DSN=high.level.qualifier.RTEname.RKANMOD
//RKANMOD DD DISP=SHR,DSN=high.level.qualifier.TKANMOD
// DD DISP=SHR,DSN=high.level.qualifier.mid_level_qualifier.RKANMOD
//RKC2XMnn DD DUMMY
//RKCPXMnn DD DUMMY
//OCCIREQ DD DUMMY
/***
```

Now you have completed configuring OMEGAMON II for CICS, the next step is "Configuring Tivoli OMEGAMON XE for CICS on z/OS for a Candle Management Server on a distributed system" on page 66.

Verifying your configuration

Now that you have completed the configuration you can verify that it has been successful. Initially you can check that the logs generated from the jobs are clean and contain no error messages.

Verification involves:

- Starting the Candle Management Server and the CandleNet Portal Server through Manage Candle Services from your workstation.
- Start two started tasks:
  - OMEGAMON II for CICS
  - Monitoring Agent
- Start your CICS regions.

After "Completing the configuration with a distributed Candle Management Server" on page 75 and "Modifying the CICS started task" on page 76, carry out the following steps:

1. On your workstation start Manage Candle Services. Start > All programs > Candle OMEGAMON XE > Manage Candle Services.
2. Start the Candle Management Server Right-click > **Start**.

3. Start the CandleNet Portal Server Right-click > **Start**.

4. Start the started task for OMEGAMON II for CICS, /S *taskname*, and check the log for any errors. Start both the menu and the CUA tasks. The CUA is optional.

5. Start the started task for your Monitoring Agent, /S *taskname*, and check the log for any errors.

6. Start the CandleNet Portal Right-click > **Start**.

When CandleNet Portal opens you will see the list of CICS regions that are associated with the agent in Navigator pane at the top left hand side of the workspace.

---

**Figure 79. Manage Candle Services**

2. Start the Candle Management Server Right-click > **Start**.

3. Start the CandleNet Portal Server Right-click > **Start**.

4. Start the started task for OMEGAMON II for CICS, /S *taskname*, and check the log for any errors. Start both the menu and the CUA tasks. The CUA is optional.

5. Start the started task for your Monitoring Agent, /S *taskname*, and check the log for any errors.

6. Start the CandleNet Portal Right-click > **Start**.

When CandleNet Portal opens you will see the list of CICS regions that are associated with the agent in Navigator pane at the top left hand side of the workspace.
Chapter 4. Configuring Tivoli OMEGAMON XE for CICS on z/OS in multiple z/OS images

This procedure describes how to configure a hub Candle Management Server and a monitoring agent on multiple z/OS images. This procedure describes how to set up the configuration illustrated in Figure 80. This configuration is described in *IBM Tivoli OMEGAMON XE for CICS on z/OS: Getting Started.*

![Diagram of hub CMS and monitoring agent monitoring CICS regions on different z/OS images](image)

This describes the steps that you need to follow to configure Tivoli OMEGAMON XE for CICS on z/OS when you have the Candle Management Server acting as a hub on one z/OS image that is accessed by a Monitoring Agent in one different z/OS image and a remote Candle Management Server in another z/OS image. This procedure assumes that you have already set up the work and configuration of the configuration tool as described in "Checklist: Setting up the Configuration Tool" on page 1.
When setting up the configuration in Figure 80 on page 79 you need to establish three separate Runtime environments, coincidently one for each of the z/OS images shown in the diagram. Each runtime environment can support only one Candle Management Server.

This process can be subdivided as follows:

**Step 1 - RTE_1**

Configure the hub Candle Management Server as shown in RTE_1 in Figure 80 on page 79. This involves configuring a runtime environment as well as the Candle Management Server. The step to configure the persistent data store is optional.

The diagram shows that the hub Candle Management Server can be either on a z/OS image or on a distributed system. If you decide on the latter refer to the process described in "Installing Candle Management Server on Windows XP" on page 42. If you decide to install Candle Management Server on a UNIX platform, refer to *IBM Tivoli OMEGAMON Platform: Installing and Setting up OMEGAMON Platform and CandleNet Portal on Windows and UNIX*.

**Step 2 - RTE_2**

Configure the remote Candle Management Server as shown in RTE_2 in Figure 80 on page 79. This involves essentially the same process as for the hub Candle Management Server. This involves configuring a Runtime Environment as well as the Candle Management Server. The step to configure the Persistent Data Store is optional.

In the diagram for this configuration, it shows that the remote Candle Management Server has a monitoring agent associated with it in the same z/OS image.

**Step 3 - RTE_3**

Configure the monitoring agent as shown in RTE_3 in its own z/OS image so that it refers to the hub CMS. Again configuring the Persistent Data store is optional.

**Step 4**

Configure the CandleNet Portal Server and CandleNet Portal (step 4) on your workstation. See Chapter 6, "Installing CandleNet Portal server and client on Windows XP," on page 133.

---

**Introduction to run-time environments in multiple z/OS images**

In this configuration it is necessary to create three runtime environments as shown in Table 5.

**Table 5. Summary of the three RTEs used in this configuration**

<table>
<thead>
<tr>
<th></th>
<th>Access to run-time libraries</th>
<th>Candle Management Server with or without persistent data stores</th>
<th>Monitoring Agent with or without persistent data stores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hub</td>
<td>Remote</td>
</tr>
<tr>
<td>RTE 1</td>
<td>✔</td>
<td>✔</td>
<td>-</td>
</tr>
<tr>
<td>RTE 2</td>
<td>✔</td>
<td>-</td>
<td>✔</td>
</tr>
<tr>
<td>RTE 3</td>
<td>✔</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
A runtime environment provides access to the OMEGAMON libraries. Each Candle Management Server requires its own runtime environment and a Monitoring Agent requires its own runtime environment if it exists on a separate z/OS image.

Configuring a hub Candle Management Server (RTE_1)

This is an overview of the steps that you need to follow to set up the configuration of the first runtime environment (RTE_1) described in Figure 80 on page 79.

1. Configuring a runtime environment
   a. “Adding a new runtime environment” on page 83
   b. “Specifying values on the Add Runtime Environment panels” on page 85
   c. “Building runtime libraries” on page 14

2. Configuring the hub Candle Management Server.
   a. “Configuring a Candle Management Server (RTE_1 and RTE_2)” on page 88
   b. “Configuring a persistent data store (Candle Management Server)” on page 94

3. “Loading runtime libraries” on page 104
4. “Completing the configuration” on page 104
5. “Verifying the configuration: Candle Management Server on different z/OS images” on page 106

Configuring a remote Candle Management Server (RTE_2)

This is an overview of the steps that you need to follow to configure a remote Candle Management Server (RTE_2) together with a remote Monitoring Agent as outlined in Figure 80 on page 79.

1. Configuring a Runtime Environment
   a. “Adding a new runtime environment” on page 83
   b. “Specifying values on the Add Runtime Environment panels” on page 85
   c. “Building runtime libraries” on page 14

2. Configuring the remote Candle Management Server.
   a. “Configuring a Candle Management Server (RTE_1 and RTE_2)” on page 88
   b. “Configuring a persistent data store (Candle Management Server)” on page 94

3. Configuring Tivoli OMEGAMON II for CICS.
   a. “Configuring OMEGAMON II for CICS (RTE_2 and RTE_3)” on page 97
   b. “Configuring a persistent data store” on page 100 (optional)

4. Configuring Tivoli OMEGAMON XE for CICS on z/OS
   a. “Configuring Tivoli OMEGAMON XE for CICS on z/OS (RTE_2 and RTE_3)” on page 99
   b. “Configuring a Monitoring Agent (RTE_2 and RTE_3)” on page 101
   c. “Configuring a persistent data store (Monitoring Agent)” on page 103 (optional)

5. “Loading runtime libraries” on page 104
6. “Completing the configuration” on page 104
7. “Modifying the CICS started task” on page 105
Configuring a remote Monitoring Agent (RTE_3)

This is an overview of the steps that you need to follow to configure a remote monitoring agent (RTE_3) as outlined in Figure 80 on page 79.

1. Configuring a Runtime Environment
   a. “Adding a new runtime environment” on page 83
   b. “Specifying values on the Add Runtime Environment panels” on page 85
   c. “Building runtime libraries” on page 14

2. Configuring OMEGAMON II for CICS.
   a. “Configuring a Candle Management Server (RTE_1 and RTE_2)” on page 88
   b. “Configuring a persistent data store (Candle Management Server)” on page 94 (optional)

3. Configuring Tivoli OMEGAMON XE for CICS on z/OS
   a. “Configuring a Monitoring Agent (RTE_2 and RTE_3)” on page 101
   b. “Configuring a persistent data store (Monitoring Agent)” on page 103 (optional)

4. “Loading runtime libraries” on page 104

5. “Completing the configuration” on page 104

6. “Modifying the CICS started task” on page 105

7. “Verifying the configuration: Candle Management Server on different z/OS images” on page 106

Building a runtime environment

Before running this step you should have added an RTE to your system, also you must run this procedure before configuring your product.

Follow these steps to build the runtime libraries.

1. From the Main Menu of the Configuration tool, enter 3 (Configure products) and 2 (Select product to configure) This displays the Runtime Environments (RTEs) panel.

   COMMAND ===> RUNTIME ENVIROMENTS (RTEs) ===>

   Actions: A Add RTE, B Build libraries, C Configure, L Load all product libraries after SMP/E, D Delete, U Update, V View values, Z Utilities

   Action Name  Type  Sharing  Description

   SVTBAS1 BASE  Base RTE for the SVT environment
   B SVTSHARI SHARING SVTBAS1 Sharing RTE for SVT environment

   Enter=Next  F1=Help  F3=Back  F7=Up  F8=Down

2. Build the runtime libraries: Enter B in the Action column next to the RTE you are creating and press Enter. This displays the JCL that you should review.
Note: You might need to add REGION=0M to the jobcard depending on your installation. Check with your system programmer. If you do not you might be missing data sets later on.

3. Review the JCL and submit the job. Change the job name to match the member name so that you can easily identify the jobs later on.

4. Submit the job and check that the job completes successfully. All return codes should be zero.

When you have completed building the runtime libraries, continue with “Configuring a hub Candle Management Server” on page 14.

Adding a new runtime environment

This procedure adds a new runtime environment.

Follow these steps to add a new runtime environment.

1. Access the Configuration tool. From the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.

2. On the Product Selection Menu, enter S in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. You can select only one product at a time for configuration.

   Note: Actions A, B, C, and L must be entered in sequence for each RTE that contains the selected product. Base RTEs only require actions B and L. The Configuration tool displays the Runtime Environments (RTEs) panel. In this case there are none.

3. Type A (Add RTE) in the Actions field and type a name for your new RTE. The name is a unique identifier (up to 8 characters), automatically used as the mid-level qualifier for FULL and SHARING RTEs. You can optionally specify a mid-level qualifier for BASE RTEs.
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter A (Add RTE).</td>
<td>This defines the RTE to the Configuration tool. This option creates a definition for the configuration tool only.</td>
</tr>
<tr>
<td>Enter B (Build libraries).</td>
<td>Generates a batch job to allocate the required runtime libraries for the selected product. This job is presented for your review and submittal. Action B must be performed for every RTE that will contain the selected product. This includes base RTEs.</td>
</tr>
<tr>
<td>Enter C (Configure).</td>
<td>Presents panels to collect the parameter values required to configure the selected product for this RTE. The RTE default values are used when applicable. A batch job is generated and presented for your review and submittal. Action C must be performed after Action B for every RTE that contains the selected product. You do not need to do action C for base RTEs.</td>
</tr>
<tr>
<td>Enter L (Load all product libraries after SMP/E).</td>
<td>Load all product libraries after SMP/E - Generates a batch job to load the runtime libraries from the SMP/E target libraries for this RTE. You must load the RTE libraries after SMP/E maintenance or product configuration, action C. Note: In a sharing-RTE type configuration, the master RTE and all other RTEs sharing the master RTE must be loaded.</td>
</tr>
<tr>
<td>Enter D (Delete).</td>
<td>Deletes the RTE. This RTE definition and associated configuration values are removed from CICAT and a batch job is created to delete the libraries.</td>
</tr>
<tr>
<td>Enter U (Update).</td>
<td>Displays current RTE values and indicates those you can change. To apply changes, you must use actions B, C and L in sequence for the affected products.</td>
</tr>
<tr>
<td>Enter V (View Values).</td>
<td>Displays current RTE values.</td>
</tr>
<tr>
<td>Enter Z (Utilities).</td>
<td>Displays a menu of selections for performing various useful processes for maintaining the RTE. The utilities installed are displayed.</td>
</tr>
</tbody>
</table>

4. Enter the type of RTE being created. In this case, start by creating a Base type. This is essential if you intend to add other RTEs using the sharing type later on. Valid types are:

**FULL** Allocates both private and base libraries. Use this if only one RTE is defined for your environment, or if you add an RTE for a unique set of products.

**BASE** Allocates base libraries only, and does not execute alone. Use this only in conjunction with SHARING RTEs populated with the same products.

**SHARING** Allocates private libraries only. This type can share base libraries with a BASE or FULL RTE populated with the same products, or use SMP/E target libraries for its base libraries. Define one SHARING RTE for each z/OS image if you have multiple images.
5. (For SHARING RTEs only). Type the name of the BASE or FULL RTE from which this RTE will obtain its base library information. If SMP/E target libraries are to be shared, type SMP.

6. Type a description for this RTE, which may be any information that is useful for you and others at your site. Press Enter to add the definition of the RTE to the Configuration tool.

After specifying all required values on the Runtime Environments (RTEs) panel, press Enter and continue with "Specifying values on the Add Runtime Environment panels."

After you have added a new RTE to the configuration tool, you must build the RTE.

**Specifying values on the Add Runtime Environment panels**

Follow these steps to specify values to define your runtime environment.

1. On the first Add Runtime Environment panel, specify the following values to define the runtime environment. In Figure 81 check the name of the runtime environment and the high level qualifier. Edit the JCL suffix and the STC prefix.
   In this configuration enter N in response to the question "Will this RTE have a Candle Management Server"
Note: Supply SMS values for libraries specified as PDSEs.

**VSAM libraries**
- Type the high-level qualifier.
- Type your site’s values for the **Volser** or the **Storclas/Mgmtclas** parameters.

**Mid-level qualifier**
- For FULL and SHARING RTEs, accept the mid-level qualifier default value (which is the RTE name you previously specified) or specify a unique mid-level qualifier.
- For BASE RTEs, specify a unique mid-level qualifier or optionally leave this field blank.

**JCL suffix**
Type a suffix for the JCL. The suffix (up to four characters) is appended to all JCL that is generated in INSTJOBS. The JCL suffix uniquely identifies the batch job members created by the Configuration tool for this RTE.

**STC prefix**
(FULL and SHARING RTEs only). Type a global STC Prefix (from 1–4 characters) to be used in building started tasks names for products in this RTE. The default is CANS.

**SYSOUT class / Diagnostic SYSOUT class**
Specify values for the non-diagnostic and diagnostic output DDNAMES.

*Note:* These values were previously hardcoded.

**Load optimization**
Indicate whether you want to optimize loading of this RTE. The default is N. Refer to the online help (F1) for more details.

**Will the RTE have a Candle Management Server?**
In this configuration for the runtime environments RTE_1 and RTE_2 enter **Y**, for RTE_3 enter **N**.
You must enter the name of the Candle Management Server to be configured. It is used by the other components that need to communicate with this Candle Management Server. The name of the runtime environment is used as a default.

**Copied from RTE**
(FULL and SHARING RTEs only - Optional)
Type the name of an existing RTE, from which configuration values will be copied and used for this RTE.

*Note:* This procedure makes an exact copy of the existing RTE. If you will not be using the same products in the new RTE, we recommend that you not use this procedure.

**Install National Language components?**
(FULL and SHARING RTEs only - NLS products only)
Specify **Y** to install National Language Components in this RTE for all eligible products.

2. After specifying all required values on the first **Add Runtime Environment** panel, press Enter. In [Figure 82 on page 87](#)
3. On the second Add Runtime Environment panel, for FULL and SHARING RTEs only, specify these values:

**Use OS/390 system variables?**
Specify Y if this RTE will use z/OS system variables.
See "Enabling system variable support" on page 163 for more information on enabling system variable support.

**Security type**
Specify what, if any, security system is to be used for this RTE. The default is NONE. If ACF2 is specified, you must also type the name of the ACF2 macro library.

**VTAM communication values**
- Type a global VTAM applid prefix (from 1–4 characters) to be used in building the VTAM applids for products in this RTE. The default is CTD.
- Identify your VTAM network. This is defined in the NETID parameter of VTAMLST.
- Type the Logmode table name for LU6.2 logmode entries. The default is KDSMTAB1.
- Type the LU6.2 logmode for this RTE. The default is CANCTDCS.

**TCP/IP communication values**
- Type the TCP/IP host name of the z/OS system in which this RTE resides and the TCP/IP address of the host. Enter TSO HOMETEST to get these values.
- Type the started task name of the TCP/IP server.
- Type the address of the IP port. The default is 1918.
- Type the Interlink TCP/IP subsystem name (if applicable).
- Do not enter the fully qualified hostname.

**Note:** Enter V (View Values) to verify the RTE information and U (Update) to make the necessary changes.
When you have finished defining your runtime environment, continue with "Building runtime libraries."

Building runtime libraries

After adding an RTE to your system, also you must run this procedure before configuring your product.

Follow these steps to build the runtime libraries.

1. From the Main Menu of the Configuration tool, enter 3 (Configure products) and 2 (Select product to configure) This displays the Runtime Environments (RTEs) panel.

2. Build the runtime libraries: Enter B in the Action column next to the RTE you are creating and press Enter. This displays the JCL that you should review, edit, submit and expect a return code of zero. Change the jobname to the name of the member so that you can track the job logs more easily.

   Note: You might need to add REGION=0M to the jobcard depending on your installation. Check with your system programmer. If you do not you might be missing data sets later on.

3. Review the JCL and submit the job. Change the job name to match the member name so that you can easily identify the jobs later on.

4. Submit the job and check that the job completes successfully. All return codes should be zero.

When you have completed building the runtime libraries, continue with "Configuring a Candle Management Server (RTE_1 and RTE_2)."

Configuring a Candle Management Server (RTE_1 and RTE_2)

Now that you have set up an RTE, you can start the configuration of Tivoli OMEGAMON XE for CICS on z/OS. You must configure a hub Candle Management Server before configuring the rest of the product.

You have two alternatives at this point:

• Configure your hub Candle Management Server on z/OS (RTE_1). To do this continue using this topic.
• Configure your hub Candle Management Server on a distributed system (RTE_1).
  – If you plan to use Windows, go to "Installing Candle Management Server on Windows XP" on page 42.
  – If you plan to install and configure Candle Management Server on a UNIX system, go to IBM Tivoli OMEGAMON Platform: Installing and Setting up OMEGAMON Platform and CandleNet Portal on Windows and UNIX.

This procedure describes the configuration of Candle Management Server on a z/OS image using the Configuration Tool.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S IBM Tivoli OMEGAMON XE for CICS on z/OS. This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to your runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:

   --------------------- PRODUCT CONFIGURATION SELECTION MENU ---------------------
   COMMAND ===>

   The following list of components requires configuration to make the product operational. Refer to the appropriate configuration documentation if you require additional information to complete the configuration.

   To configure the desired component, enter the selection number on the command line. You should configure the components in the order they are listed.

   COMPONENT TITLE
   1 Candle Management Server
   2 OMEGAMON II for CICS
   3 IBM Tivoli OMEGAMON XE for CICS on z/OS

   Figure 84. Product configuration selection menu

2. Enter 1 (Candle Management Server). You must first configure a hub Candle Management Server before configuring the products that communicate with the Candle Management Server. There are six steps needed for the configuration of your Candle Management Server. They are listed in the following screen. Press F1 for Help.
Enter 1 (Create LU6.2 logmode). This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter. A job to create the logmode is displayed. You must submit this job unless you plan on using an existing LU6.2 logmode.

**Note:** This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter. This generates JCL, review, edit and submit this job unless you plan to use an existing LU6.2 logmode. You should get a return code of zero.

At the end of this you are returned to the Configure the Candle Management Server menu.

**Figure 85. Configure the CMS panel**

3. Enter 1 (Create LU6.2 logmode). This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter. A job to create the logmode is displayed. You must submit this job unless you plan on using an existing LU6.2 logmode.

**Note:** This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter. This generates JCL, review, edit and submit this job unless you plan to use an existing LU6.2 logmode. You should get a return code of zero.

At the end of this you are returned to the Configure the Candle Management Server menu.

**Figure 86. Create LU6.2 logmode**

**Note:** This screen shows the defaults. These are only suggestions. You should follow the guidelines for your site. Press F1 for further information.

**LU6.2 logmode**

This is the name LU6.2 logmode.
**Logmode table name**
This is the name of the logmode table that contains the LU6.2 logmode. This is required even if you do not submit the job.

**VTAMLIB load library**
This is the name of the system library that is used to contain VTAM logmode tables. This is usually SYS1.VTAMLIB. You can specify any load library if you do not want to update your VTAMLIB directly.

**VTAM macro library**
This is the name of the system library that contains the VTAM macros. This library is usually SYS1.SISTMAC.

4. Enter 2 (Specify CMS Configuration values). This is the critical step where you declare that whether this is either a hub (RTE_1) or remote (RTE_2) Candle Management Server. You also specify the name of the stated task for this Candle Management Server and whether security validation should apply for your Candle Management Server. At this stage do not set security validation on at this stage. You can do this later.

For this configuration, you should specify Hub for RTE_1 and Remote for RTE_2.

![Specify configuration values panel]

---

**Figure 87. Specify configuration values panel**

**CMS Started Task**
This is the name of the started task for the Candle Management Server. This started task must be copied to your system procedure library. The default is CANSDSST.

**Hub or Remote?**
Specify whether you are creating a:
- **Hub** Candle Management Server. For RTE_1, enter **HUB**
- **Remote** Candle Management Server. For RTE_2, enter **REMOTE**.

**Security validation**
Initially do not set this to **Y** to enable you to use the default userid, **sysadmin** of your CandleNet Portal. If you do, make sure that this userid is defined in your external security manager. Specify this parameter if you want Candle Management Server security access to validate a user ID. Setting **VALIDATE=NO** means that the application userid is authorized, or the Candle Management Server does not have a security requirement. The default is **N**.

**Note:** Do not enable security validation until your security is set. Before you add security to your Candle Management Server:
- Make sure you have configured all products and verified that they are operating properly.
- If you choose a third-party security package, verify that it is installed and configured for your site. Ensure that any userid to be used by the CandleNet Portal is defined in your external security manager.

5. Enter 3 (Specify Candle Management Server communication protocols). Specifies the communication protocol for the Candle Management Server. It allows you to specify IP, SNA, and IPPipe. The sequence determines the priority for the protocol. For this configuration, specify IPPipe. When you configure the workstation specify TCPIP.

```
------------------------ SPECIFY CMS COMMUNICATION PROTOCOLS ------------------------
COMMAND ===>                

Specify communication protocols for CMS NameName in priority sequence.
Protocol 1 ===> IPPipe  (SNA, IP, IPPipe)
Protocol 2 (optional) ===> (SNA, IP, IPPipe)
Protocol 3 (optional) ===> (SNA, IP, IPPipe)

Note: One of the protocols chosen must be SNA.
```

Figure 88. Specify CMS communication protocols panel

**IP.PIPE**

Specifies the use of the TCP/IP protocol for underlying communications.

**IP**

Specifies the use of the UDP/IP (User Datagram Protocol), which is the "packet-based", connectionless oriented protocol.

**SNA**

Specifies the use of Systems Network Architecture (SNA)/Advanced Program-To-Program Communications (APPC).

6. On the **Specify Candle Management Server Communication Protocols** panel, enter the values that you use at your site and press Enter. If you entered three values in the Specify Candle Management Server communications protocol panel, you are presented with a panel for each option. Press Enter each time. Eventually you are returned to the Configure the Candle Management Server panel.

a. Press Enter. This displays the Specify IP.PIPE communication panel menu. Enter the data as shown in the accompanying screen.
Hostname
Specify the TCP ID of the MVS mainframe to which you will connect. To get this value, issue the TSO HOMETEST command and use the first qualifier of the TCP Hostname.

Address
Specify the TCP address of the MVS mainframe to which you connect. To get this value, issue the TSO HOMETEST command.

Started task
Specify the started task name of TCP which is running on the MVS mainframe host.

Network interface card (NIC)
Specify the network interface card (NIC) that you prefer for the IBM application to use. During configuration, the Configuration tool will then add the KDCB0_HOSTNAME= parameter in the KDSENV member of the high.level.qualifier.RKANPAR library.

Port number
Specify the port number you want to use. If you are not using the default port number 1918, enter the port number you will be using. This value is used in the KDC_FAMILIES environment variable in the KDSENV member in RKANPAR.

Note: If you are defining a remote Candle Management Server, then this port number must match the port number of the Hub that this remote Candle Management Server reports to. There should only be one remote Candle Management Server in a given MVS image that reports to the same Hub Candle Management Server.

Address translation
Specify Y to configure IP.PIPE support for communication across firewalls using address translation.

Figure 89. Specify IP.PIPE communication protocol panel

Hostname
Specify the TCP ID of the MVS mainframe to which you will connect. To get this value, issue the TSO HOMETEST command and use the first qualifier of the TCP Hostname.

Address
Specify the TCP address of the MVS mainframe to which you connect. To get this value, issue the TSO HOMETEST command.

Started task
Specify the started task name of TCP which is running on the MVS mainframe host.

Network interface card (NIC)
Specify the network interface card (NIC) that you prefer for the IBM application to use. During configuration, the Configuration tool will then add the KDCB0_HOSTNAME= parameter in the KDSENV member of the high.level.qualifier.RKANPAR library.

Port number
Specify the port number you want to use. If you are not using the default port number 1918, enter the port number you will be using. This value is used in the KDC_FAMILIES environment variable in the KDSENV member in RKANPAR.

Note: If you are defining a remote Candle Management Server, then this port number must match the port number of the Hub that this remote Candle Management Server reports to. There should only be one remote Candle Management Server in a given MVS image that reports to the same Hub Candle Management Server.

Address translation
Specify Y to configure IP.PIPE support for communication across firewalls using address translation.
Note: By default, Ephemeral Pipe Support (EPS) is enabled automatically to allow IP.PIPE connections which cross a (Network address) translating firewall. This feature obviates the need for a broker partition file (KDC_PARTITIONFILE=KDCPART). If you specifically want to disable EPS, then specify Y to the Address translation field.

7. Enter 4 (Create runtime members). This creates the runtime members required by Candle Management Server. These members are created in the runtime libraries for this RTE. Edit the JCL, submit it and expect a return code of zero. At the end of the step you can validate that the Candle Management Server is running.

See the Candle Management Server on OS/390 and z/OS Configuration and Customization Guide for detailed information on configuring a Candle Management Server.

When you have completed configuring the Candle Management Server for both RTE_1 and RTE_2, continue with "Configuring a persistent data store (Candle Management Server)."

Configuring a persistent data store (Candle Management Server)

Persistent data stores are associated with each Candle Management Server, Tivoli OMEGAMON XE for CICS on z/OS, and each Monitoring Agent. You should include a persistent data store for the Candle Management Server. However the data stores for Tivoli OMEGAMON XE for CICS on z/OS and the Monitoring Agent are optional and depend whether you plan to collect system historical data.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS) > C (Adjacent to your RTE) > 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Configure Candle Management Server panel (Figure 12 on page 15).

1. From the Configure Candle Management Server panel, enter 5 (Configure persistent datastore) and press Enter. This opens the Allocate persistent data store panel, see Figure 90 on page 95.

Note: If you do not intend to collect any historical data (either system or task), you can omit this step.
2. Enter 1 (Modify and review datastore specifications) and press Enter. This panel controls the size, the placement and the number of data sets that comprise the Persistent Datastore, or press F3 to accept the values displayed.

---

**Figure 90. Allocate persistent datastore menu**

```
<table>
<thead>
<tr>
<th>OPTION</th>
<th>====&gt;</th>
<th>Last selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Modify and review datastore specifications</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Create or edit PDS maintenance jobcard</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Create runtime members</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Edit and submit datastore allocation job</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Complete persistent datastore configuration</td>
<td></td>
</tr>
</tbody>
</table>
```

F1=Help  F3=Back

Note: The settings on this screen are only suggestions. Follow the guidelines for your site.

**Group name**

Is the name of the group. Each group contains the number of data sets specified in the Group Count field.

**Data Sets lowlev**

Is the low-level qualifier of the data sets name. It is suffixed with a 1-character value (1-9, A-Z) that indicates the data set number within a group. For example:

- `high.level.qualifier.RTEname.RGENHIS1`
- `high.level.qualifier.RTEname.RGENHIS2`
- `high.level.qualifier.RTEname.RGENHIS3`

Where RGENHISn is the low-level qualifier.

You may use the default values displayed or change them to meet your site’s requirements.

**Group Count**

Indicates the number of data sets within the group.

Note: Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one,
additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

**Est Cyl space**
This field is used to allocate the number of datastore files you specified for the group. The CT/PDS processing computes how much space is needed to allocate the group datastore files, and how much additional required space is needed to hold overhead information. Overhead information includes the product dictionary, table records, index records, and spare room for buffers that need to be reserved for when the data set is full.

**Backup, Export, and Extract**
These fields are used for datastore maintenance functions. Specify Y to turn on one of these maintenance functions for a group.

You can use the Backup facility if you want to keep old history data. This facility does an MVS IEBGENER request to make an exact copy of the data set being maintained. It is a simple copy of the data set to either tape or DASD. A backed-up file also has the advantage that nothing has to be done to the file to dynamically make the data available to the Persistent Datastore again.

Each group contains the number of data sets specified in the Group Count field. The Datasets Lowlev is suffixed with a 1-character value (1-9, A-Z) that indicates the dataset number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel, the PD#Psuffix job creates the Persistent Datastore members that make reference to these datastore files.

3. Enter 2 (Create or edit PDS maintenance jobcard). Edit the job card and press Enter. This specifies the job card to be used for the Persistent Datastore (PDS) KPDPROC1, KPDPROCC and KPDPROC2 maintenance jobs. The job card member (KPDPJOBCC) is created in the high.level.qualifier,RTEname_.RKANSAM library.

4. Enter 3 (Create runtime members). This opens JCL that you can edit and submit. You should expect a return code of zero. This job creates the persistent datastore members.

5. Enter 4 (Edit and submit datastore allocation job). This opens JCL that you can edit and submit. You should expect a return code of zero. This job allocates and initializes all data sets required for this product’s persistent datastore.

**Note:** This job is applicable to define a brand new PDS configuration. If the PDS data sets already exist, then delete or rename this product’s persistent datastore files if you want the configuration tool to re-allocate and re-initialize the datasets for this product’s persistent datastore.

6. Enter 5 (Complete persistent datastore configuration). This describes the steps that you need to take to copy the procedures that you have created to your procedures libraries. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see "Completing the configuration" on page 36.

See the Candle Management Server on OS/390 and z/OS Configuration and Customization Guide for detailed information on configuring a Candle Management Server.
When you have finished configuring the Candle Management Server, continue with "Configuring OMEGAMON II for CICS (RTE_2 and RTE_3)."

Configuring OMEGAMON II for CICS (RTE_2 and RTE_3)

So far you have created a Runtime Environment and configured a Candle Management Server on your system. This procedure configure Tivoli OMEGAMON II for CICS.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S IBM Tivoli OMEGAMON XE for CICS on z/OS. This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to the runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:

```
-------------------------------  PRODUCT CONFIGURATION SELECTION MENU  -----------------------------
COMMAND =>>

The following list of components requires configuration to make the product operational. Refer to the appropriate configuration documentation if you require additional information to complete the configuration.

To configure the desired component, enter the selection number on the command line. You should configure the components in the order they are listed.

COMPONENT TITLE
1   Candle Management Server
2   OMEGAMON II for CICS
3   IBM Tivoli OMEGAMON XE for CICS on z/OS
```

2. From the Product Configuration Menu, enter 2 (OMEGAMON II for CICS). The resulting panel looks like this:

```
---------------------------  CONFIGURE OMEGAMON II FOR CICS / RTE: RTEname  ---------------------------
OPTION =>>

Perform these configuration steps in order:          Last selected
1   Specify configuration values                          Date   Time
2   Allocate additional runtime datasets
3   Create runtime members
4   Complete the configuration

Optional:
5   Allocate/initialize task history datasets
6   Install/update CICS global data area modules
7   Modify menu system command security
8   Install Candle Subsystem
9   Run migration utility

F1=Help  F3=Back
```

3. From the Configure OMEGAMON II for CICS panel, enter 1 (Specify configuration values). The configuration values are displayed. Check that the name of the started task for End-to-End (ETE) is correct. Press Enter when complete.
a. Edit the parameters to meet your site’s requirements. In Figure 91 the STC prefix was derived from the value that you entered in Figure 81 on page 85 and the applid was the value you entered in Figure 82 on page 87. In this example the letter A was added to distinguish these values from others on in the same z/OS image. It is a local convention. Follow your site’s conventions.

Figure 91. OMEGAMON II for CICS configuration values summary panel

Note: The screen shows some typical examples.

4. From the Configure OMEGAMON II for CICS panel, enter 2 (Allocate additional runtime datasets). There is nothing to do in this step.

5. From the Configure OMEGAMON II for CICS panel, enter 3 (Create runtime members). This creates JCL that you should review, edit and submit. You should expect return code of zero. Change the job name to, for example, the name of the member of the PDS.

6. Copy procedures to PROCLIB. This describes a series of steps that copy procedures from the Configuration Tool to your PROCLIB and VTAM definitions to your VTAMLST. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see “Completing the configuration with a distributed Candle Management Server” on page 75.

When you have finished configuring the OMEGAMON II for CICS, continue with “Modifying the CICS started task” on page 105.
Chapter 4. Configuring Tivoli OMEGAMON XE for CICS on z/OS in multiple z/OS images
3. Enter 1 (Register with the local Candle Management Server). This opens a job that you can edit and submit. You should expect a zero return code.

In this configuration there is an agent in a separate address space from the Candle Management Server but the Candle Management Server is located in the same z/OS image. This job registers the Tivoli OMEGAMON XE for CICS on z/OS to the local CMS.

**Note:** This option also applies if the Tivoli OMEGAMON XE for CICS on z/OS Agent is running in its own Agent address space in another RTE and connects to the CMS in this RTE.

When you have finished linking to the Candle Management Server, continue with "Configuring a Monitoring Agent (RTE_2 and RTE_3)" on page 101.

### Configuring a persistent data store

This is an optional step. It creates a persistent data store associated with the Tivoli OMEGAMON XE for CICS on z/OS.

From the **Product Component Selection** menu, enter 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS).

1. From the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS enter 2 (Configure Persistent Datastore). This is the persistent datastore that is associated with the Candle Management Server. If you configure the persistent datastore when you created your Candle Management Server you should use this procedure. There are five steps that are involved in this process. They are the same steps that are described in the step "Configure the persistent datastore" when you created the Candle Management Server. Use F1 help for more information about each panel.
2. Enter 1 (Modify and review datastore specifications)

3. Enter 2 Create or edit PDS maintenance job card. Edit the Job card and press F3. This shows the job card that will be used for your JCL during the rest of the configuration.

4. Enter 3 Create runtime members Review the code, change the job name to the name of the member of the PDS (this makes is easier to track the job later). Submit the job and expect a return code of zero.

5. Enter 4 Edit and submit datastore allocation job Review the code, change the job name to the name of the member of the PDS. Submit the job and expect a return code of zero.

6. Enter 5 Complete persistent datastore configuration

When you have finished configuring the OMEGAMON II for CICS, continue with “Loading runtime libraries” on page 104.

Configuring a Monitoring Agent (RTE_2 and RTE_3)

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S IBM Tivoli OMEGAMON XE for CICS on z/OS > C next to your RTE definition and press Enter. This displays the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS Panel.

1. Enter 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). To configure the products you have installed, follow the instructions on each Configuration tool panel. Help is available for each panel by pressing F1.

When you finish configuring one product, press F3 to return to the Product Component Selection Menu. Repeat this process to configure all of your products. The panel looks like this:
2. From the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS, enter 3 (Specify configuration parameters) You can modify the work load allocation.

Note: This screen shows the defaults. This is only a suggestion. Follow the guidelines for your site.

3. Enter 4 (Specify Agent Address space parameters)

4. Enter 5 (Create runtime members) This opens a job that you can edit and submit. You should expect a return code of zero.

When you have finished configuring the Monitoring Agent, either continue "Configuring a persistent data store (Monitoring Agent)" on page 103 or continue with "Loading runtime libraries" on page 104.
Configuring a persistent data store (Monitoring Agent)

This is an optional step. It creates a persistent data store associated with the Monitoring Agent. This procedure can be used with either a hub CMS or a remote CMS.

From the Product Component Selection menu, enter 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS).

1. From the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS enter 2 (Configure Persistent Datastore). This is the persistent datastore that is associated with the Candle Management Server. If you configure the persistent datastore when you created your Candle Management Server you should use this procedure. There are five steps that are involved in this process. They are the same steps that are described in the step "Configure the persistent datastore" when you created the Candle Management Server. Use F1 help for more information about each panel.

2. Enter 1 (Modify and review datastore specifications)

3. Enter 2 Create or edit PDS maintenance job card. Edit the Job card and press F3. This shows the job card that will be used for your JCL during the rest of the configuration.

4. Enter 3 Create runtime members Review the code, change the job name to the name of the member of the PDS (this makes it easier to track the job later). Submit the job and expect a return code of zero.

5. Enter 4 Edit and submit datastore allocation job Review the code, change the job name to the name of the member of the PDS. Submit the job and expect a return code of zero.

6. Enter 5 Complete persistent datastore configuration
When you have finished configuring the OMEGAMON II for CICS, continue with "Loading runtime libraries."

Loading runtime libraries

You must load the runtime libraries after you:
- Install and configure the products you want in a new RTE
- Install and configure an additional product in an existing RTE
- Install maintenance, whether or not you reconfigure a product
- Change the configuration of Tivoli OMEGAMON XE for CICS on z/OS.

Note: The load job requires exclusive access to the runtime libraries.

Follow these steps to load the runtime libraries from the SMP/E target libraries.
1. Enter the Configuration tool and from the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.
2. On the Product Selection Menu, enter S in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. The Configuration tool displays the Runtime Environments (RTEs) panel.
3. Type L next to the RTE for which you want to load the runtime libraries and press Enter.

Note: If you are sharing RTEs, both the master RTE and the sharing RTE must be loaded.
Review the JCL and submit the job. Verify that the job completes successfully and that the return code is 04 or less.
4. When you are finished loading the runtime libraries, press F3 to return to the Main Menu.

Now go to "Completing the configuration."

Completing the configuration

The Configuration Tool created started task procedures in the data set high.level.qualifier.RKANSAM. These must be copied to your procedure library. In addition the VTAM definitions that have been created must be copied to your SYS1.VTAMLST

From the Runtime environments panel, enter 8 (Complete the configuration) next to your runtime definition. This describes the steps that you have to follow to ensure that you have the definitions that have been created in the configuration in your runtime environment.

Using the Configuration Tool Utilities to update your started task library, use the following steps:
1. From the Runtime environments panel, Enter Z (Utilities) next to your runtime definition. Copy the agent started task from RKANSAM to PROCLIB.
2. From the Utilities panel, Enter 8 (Create the Copy JCL). On the next panel enter the name of your procedure library, for example, USER.PROCLIB. Press Enter.
Edit the JCL, submit the job. You should expect a return code of zero. This generates some JCL to create a member called KCISYPJB in high.level.qualifier.rtename.RKANSAM.

3. Edit KCISYPJB and submit the job. This job copies all the required started tasks from your RKANSAM library to the specified procedure library. You should expect a return code of zero. Looking through the code you will see the names of the started tasks that have been created during the configuration. There are started tasks for:
   - Candle Management Server
   - OMEGAMON II for CICS
   - Tivoli OMEGAMON XE for CICS on z/OS
   - End-to-End (ETE).

4. From the Utilities panel, Enter 9 (Create the VTAM definitions). Enter the name of your VTAM node, press Enter. This sample system copy JCL copies the VTAM definitions to VTAMLST. The Configuration tool created VTAM definitions in RKANSAM. You should copy the VTAM major node from RKANSAM to your system VTAMLST. This generates JCL to create a member called KCISYNJB in high.level.qualifier.rtename.RKANSAM.

5. Edit KCISYNJB and submit the job. This job copies all the required VTAM definitions from your RKANSAM library to the specified VTAMLST. You should expect a return code of zero.

6. All runtime libraries concatenated in the STEPLIB DDNAME must be APF-authorized.

7. Vary VTAM major node active. Vary the VTAM major node active, for example, V NET,ACT,ID=OMEGAAN

8. Edit the started task for your Monitoring Agent. Add the following statement the end of job: //RKC2XMnn DD DUMMY Where nn is a two digit value between 01-15 and is unique for your monitoring agent. This corresponds to the statement that you add to the CICS started job.

9. Contact your local security administrator to grant the appropriate authorizations.

Now, you can verify your installation and configuration, continue with “Modifying the CICS started task” and “Verifying the configuration: Candle Management Server on different z/OS images” on page 106.

If you are migrating data from previous releases or from OMEGAMON II to OMEGAMON XE, see Chapter 9, “Migrating,” on page 155.

---

**Modifying the CICS started task**

You can access the information from the Configure OMEGAMON II for CICS panel, enter 4 (Complete the configuration). This provides information that you have to add to your the JCL for your CICS regions. It is summarized in the following points.

1. Add //KC2GLBnn DD DUMMY to your CICS started task. If you want to use the monitoring options in a suffixed global data area (GDA), you must add this DD statement to the CICS region JCL to identify the global.

2. Add //RKC2XMnn DD DUMMY to your CICS started task. If you want to use other than the default OMEGAMON II address space pair (the defaults here are CANSOC0 and CANSC20 as set on Configure OMEGAMON II for CICS option 1) to monitor a CICS region, you must add this DD statement to the CICS region JCL to identify the address space pair.
3. Add //RKCPXMnn DD DUMMY to your CICS started task.

4. Add the program KOCOME00. Program KOCOME00 is the only program loaded from your CICS startup JCL’s DFHRPL concatenation. You can copy this program to a separate DFHRPL to reduce PDS directory search times. If you include program KOCOME00 in your PLTPI, you can ensure that the OMEGAMON II address space is active before your CICS region completes initializing. To do this, add the following DD statement to the CICS startup JCL:

//OCCIREQnn DD DUMMY

After you add the DD statement, program KOCOME00 checks the cross-memory interface task (XMIT) is running as a subtask of the menu system. If the subtask is active, initialization continues. If the subtask is not active, the following WTOR message appears:

OC0806: XMCR OCCIREQ SPECIFIED IN THE STARTUP JCL BUT RK2XMMnn NOT ACTIVE.
REPLY ABEND, IGNORE, OR RETRY.

Where nn is the suffix specified in the //RKC2XMnn DD DUMMY statement in the CICS startup JCL or, if no suffix was specified, by the default (00).

5. Add a DD statement for RKANMOD and concatenate the OMEGAMON II load library to your DFHRPL DD statement. Here is an example of the additional statements:

//DFHRPL......
//...
//...

//******************************************************************
// OMEGAMON FOR CICS DATASETS
//******************************************************************
// DD DISP=SHR,DSN=high.level.qualifier.TKANMOD
// DD DISP=SHR,DSN=high.level.qualifier.RTEname.RKANMOD
// RKANMOD DD DISP=SHR,DSN=high.level.qualifier.TKANMOD
// DD DISP=SHR,DSN=high.level.qualifier.mid_level_qualifier.RKANMOD
// RKC2XMnn DD DUMMY
// RKCPXMnn DD DUMMY
// OCCIREQ DD DUMMY

Now you have completed configuring IBM Tivoli OMEGAMON XE for CICS on z/OS, you should install the CandleNet Portal Server and CandleNet Portal client on your workstation. When you have done this continue with “Verifying the configuration” on page 38.

**Verifying the configuration: Candle Management Server on different z/OS images**

Now that you have completed the configuration you can verify that it has been successful. Initially you can check that the logs generated from the jobs are clean and contain no error messages.

After “Completing the configuration” on page 104 and “Modifying the CICS started task” on page 105, carry out the following steps:

RTE_1
Start the Candle Management Server.

RTE_2
Start the
- Candle Management Server.
- OMEGAMON II for CICS.
- Monitoring Agent.

**RTE_3**
Start the
- OMEGAMON II for CICS.
- Monitoring Agent.

**Start your CICS regions**
1. Start the started task for hub Candle Management Server in RTE_1, /S taskname, and check the log for any errors.
2. Start the started task for remote Candle Management Server in RTE_2, /S taskname, and check the log for any errors.
3. Start the started task for remote OMEGAMON II for CICS in RTE_2, /S taskname, and check the log for any errors.
4. Start the started task for your remote Monitoring Agent in RTE_2, /S taskname, and check the log for any errors.
5. Start the started task for remote OMEGAMON II for CICS in RTE_3, /S taskname, and check the log for any errors.
6. Start the started task for your Monitoring Agent in RTE_3, /S taskname, and check the log for any errors.
7. On your workstation start Manage Candle Services. Start > All programs > Candle OMEGAMON XE > Manage Candle Services.

![Manage Candle Services](image)

**Figure 92. Manage Candle Services**

8. Start the CandleNet Portal Server Right-click > **Start**.
9. Start the CandleNet Portal Right-click > **Start**.

When CandleNet Portal opens you will see the list of CICS regions that are associated with the agents in Navigator pane at the top left hand side of the workspace.
Chapter 5. Configuring Candle Management Server and Monitoring Agent in the same address space

This procedure uses many of the steps described in Chapter 2, “Configuring Tivoli OMEGAMON XE for CICS on z/OS in a single z/OS image,” on page 7. It differs in that the Candle Management Server and the Monitoring Agent are configured in the same address space on a single z/OS image. For your convenience all the steps are described as if you were installing Tivoli OMEGAMON XE for CICS on z/OS for the first time. It is assumed that you have already set up your configuration tool as described in Chapter 1, “Configuration overview,” on page 1.

However for those of you that a familiar with the configuration processes of OMEGAMON the main difference lies in the configuration of the Monitoring Agent. In the Configure IBM Tivoli OMEGAMON XE for CICS on z/OS panel of the Configuration Tool, choose option 7 (Install Agent into local CMS) to configure the Monitoring Agent in the same address space as the Candle Management Server.

Step 1 - Configure a runtime environment
This involves:
1. “Introduction to runtime environments” on page 110
2. “Adding a new runtime environment” on page 110
   a. “Specifying values on the add runtime environment panels” on page 112
3. “Building runtime libraries” on page 116

Step 2 - Configure the hub Candle Management Server.
This involves:
1. “Configuring Candle Management Server” on page 116
2. “Configuring a persistent data store (Candle Management Server)” on page 20

Step 3 - Configure OMEGAMON II for CICS.
This involves:
1. “Configuring a OMEGAMON II for CICS” on page 124

Figure 93. A local configuration with Candle Management Server, AAS on the same z/OS image in the same address space
2. “Configuring Candle Management Server” on page 116. This is optional depending whether you want to collect historical task data.

Step 4 - Configure the Tivoli OMEGAMON XE for CICS on z/OS.

This involves:
1. “Configuring a monitoring agent for a Candle Management Server in the same address space” on page 126.
2. Configuring a persistent data store. This is optional depending whether you want to collect historical system data.

Step 5 - Loading the Libraries, modifying the CICS started job and completing the configuration

This involves:
1. “Loading runtime libraries” on page 128.
2. Modifying the CICS started job.
3. Completing the configuration.

Step 6 - Installing and configuring CandleNet Portal Server and CandleNet Portal

Configure the CandleNet Portal Server and CandleNet Portal on your workstation.

To do this see Chapter 6, “Installing CandleNet Portal server and client on Windows XP,” on page 133.

Introduction to runtime environments

In this configuration you only need to create one runtime environment as shown in Table 6.

Table 6. Summary of the RTE used in this configuration

<table>
<thead>
<tr>
<th>RTE</th>
<th>Access to run-time libraries</th>
<th>Candle Management Server with or without persistent data stores</th>
<th>Monitoring Agent with or without persistent data stores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hub</td>
<td>Remote</td>
</tr>
</tbody>
</table>

A runtime environment provides access to the OMEGAMON libraries. Each Candle Management Server requires its own runtime environment and a Monitoring Agent requires its own runtime environment if it exists on a separate z/OS image to the Candle Management Server.

Adding a new runtime environment

Follow these steps to add a new runtime environment.
1. Access the Configuration tool. From the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.
2. On the Product Selection Menu, enter S in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. You can select only one product at a time for configuration.

   **Note:** Actions A, B, C, and L must be entered in sequence for each RTE that contains the selected product. Base RTEs only require actions B and L. The Configuration tool displays the Runtime Environments (RTEs) panel. In this case there are none.

   -----------------------------------------------------------  RUNTIME ENVIRONMENTS (RTEs)  -----------------------------------------------------------
   COMMAND ===>  
   Actions: A Add RTE, B Build libraries, C Configure, 
   L Load all product libraries after SMP/E, 
   D Delete, U Update, V View values, Z Utilities 
   
   Action Name   Type   Sharing   Description 
   A  SVTSHAR1 SHARING SVTBASE1 Sharing RTE for SVT environment  
   ----------------------------------------------- 
   SVTBASE1 BASE   Base RTE for the SVT environment  
   ----------------------------------------------- 
   Enter=Next   F1=Help   F3=Back   F7=Up   F8=Down

3. Type A (Add RTE) in the **Actions** field and type a name for your new RTE. The name is a unique identifier (up to 8 characters), automatically used as the mid-level qualifier for FULL and SHARING RTEs. You can optionally specify a mid-level qualifier for BASE RTEs.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter A (Add RTE).</td>
<td>This defines the RTE to the Configuration tool. This option creates a definition for the configuration tool only.</td>
</tr>
<tr>
<td>Enter B (Build libraries).</td>
<td>Generates a batch job to allocate the required runtime libraries for the selected product. This job is presented for your review and submittal. Action B must be performed for every RTE that will contain the selected product. This includes base RTEs.</td>
</tr>
<tr>
<td>Enter C (Configure).</td>
<td>Presents panels to collect the parameter values required to configure the selected product for this RTE. The RTE default values are used when applicable. A batch job is generated and presented for your review and submittal. Action C must be performed after Action B for every RTE that contains the selected product. You do not need to do action C for base RTEs.</td>
</tr>
<tr>
<td>Enter L (Load all product libraries after SMP/E).</td>
<td>Load all product libraries after SMP/E - Generates a batch job to load the runtime libraries from the SMP/E target libraries for this RTE. You must load the RTE libraries after SMP/E maintenance or product configuration, action C. <strong>Note:</strong> In a sharing-RTE type configuration, the master RTE and all other RTEs sharing the master RTE must be loaded.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Enter D (Delete).</td>
<td>Deletes the RTE. This RTE definition and associated configuration values are removed from CICAT and a batch job is created to delete the libraries.</td>
</tr>
<tr>
<td>Enter U (Update).</td>
<td>Displays current RTE values and indicates those you can change. To apply changes, you must use actions B, C and L in sequence for the affected products.</td>
</tr>
<tr>
<td>Enter V (View Values).</td>
<td>Displays current RTE values.</td>
</tr>
<tr>
<td>Enter Z (Utilities).</td>
<td>Displays a menu of selections for performing various useful processes for maintaining the RTE. The utilities installed are displayed.</td>
</tr>
</tbody>
</table>

4. Enter the type of RTE being created. In this case, start by creating a Base type. This is essential if you intend to add other RTEs using the sharing type later on. Valid types are:

**FULL** Allocates both private and base libraries. Use this if only one RTE is defined for your environment, or if you add an RTE for a unique set of products.

**BASE** Allocates base libraries only, and does not execute alone. Use this only in conjunction with SHARING RTEs populated with the same products.

**SHARING**
Allocates private libraries only. This type can share base libraries with a BASE or FULL RTE populated with the same products, or use SMP/E target libraries for its base libraries. Define one SHARING RTE for each z/OS image if you have multiple images.

5. (For SHARING RTEs only). Type the name of the BASE or FULL RTE from which this RTE will obtain its base library information. If SMP/E target libraries are to be shared, type **SMP**.

6. Type a description for this RTE, which may be any information that is useful for you and others at your site. Press Enter to add the definition of the RTE to the Configuration tool.

After specifying all required values on the Runtime Environments (RTES) panel, press Enter and continue with "Specifying values on the add runtime environment panels."

**Specifying values on the add runtime environment panels**

Follow these steps to specify values to define your runtime environment.

1. On the first Add Runtime Environment panel, specify the following values to define the runtime environment. In Figure 94 on page 113 check the name of the runtime environment and the high level qualifier. Edit the JCL suffix and the STC prefix.
   In this configuration enter **N** in response to the question "Will this RTE have a Candle Management Server’’
Non-VSAM libraries
- Type the high-level qualifier.
- Type your site’s values for either the Volser/Unit parameters or the Storclas/Mgmtclas parameters.
- Indicate whether PDSE libraries are to be used.
- PDSEs do not require compression, and are not limited by a pre-defined number of directory entries. The default of N signifies that PDS libraries are to be used.

Note: Supply SMS values for libraries specified as PDSEs.

VSAM libraries
- Type the high-level qualifier.
- Type your site’s values for the Volser or the Storclas/Mgmtclas parameters.

Mid-level qualifier
- For FULL and SHARING RTEs, accept the mid-level qualifier default value (which is the RTE name you previously specified) or specify a unique mid-level qualifier.
- For BASE RTEs, specify a unique mid-level qualifier or optionally leave this field blank.

JCL suffix
Type a suffix for the JCL. The suffix (up to four characters) is appended to all JCL that is generated in INSTJOBS. The JCL suffix uniquely identifies the batch job members created by the Configuration tool for this RTE.

STC prefix
(FULL and SHARING RTEs only). Type a global STC Prefix (from 1–4 characters) to be used in building started tasks names for products in this RTE. The default is CANS.
SYSOUT class / Diagnostic SYSOUT class
Specify values for the non-diagnostic and diagnostic output DDNAMES.

Note: These values were previously hardcoded.

Load optimization
Indicate whether you want to optimize loading of this RTE. The default is N. Refer to the online help (F1) for more details.

Will the RTE have a Candle Management Server?
In this configuration, enter Y.
The default of Y allocates Candle Management Server libraries.
You must enter the name of the Candle Management Server to be configured. It is used by the other components that need to communicate with this Candle Management Server. The name of the runtime environment is used as a default.

Copied from RTE
(FULL and SHARING RTEs only - Optional)
Type the name of an existing RTE, from which configuration values will be copied and used for this RTE.

Note: This procedure makes an exact copy of the existing RTE. If you will not be using the same products in the new RTE, we recommend that you not use this procedure.

Install National Language components?
(FULL and SHARING RTEs only - NLS products only)
Specify Y to install National Language Components in this RTE for all eligible products.

2. After specifying all required values on the first Add Runtime Environment panel, press Enter. In Figure 95 on page 115
3. On the second Add Runtime Environment panel, for FULL and SHARING RTEs only, specify these values:

**Use OS/390 system variables?**
Specify Y if this RTE will use z/OS system variables.

See "Enabling system variable support" on page 163 for more information on enabling system variable support.

**Security type**
Specify what, if any, security system is to be used for this RTE. The default is NONE. If ACF2 is specified, you must also type the name of the ACF2 macro library.

**VTAM communication values**
- Type a global VTAM applid prefix (from 1–4 characters) to be used in building the VTAM applids for products in this RTE. The default is CTD.
- Identify your VTAM network. This is defined in the NETID parameter of VTAMLST.
- Type the Logmode table name for LU6.2 logmode entries. The default is KDSMTAB1.
- Type the LU6.2 logmode for this RTE. The default is CANCTDCS.

**TCP/IP communication values**
- Type the TCP/IP host name of the z/OS system in which this RTE resides and the TCP/IP address of the host. Enter TSO HOMETEST to get these values.
- Type the started task name of the TCP/IP server.
- Type the address of the IP port. The default is 1918.
- Type the Interlink TCP/IP subsystem name (if applicable).
- Do not enter the fully-qualified hostname.

**Note:** Enter V (View Values) to verify the RTE information and U (Update) to make the necessary changes.
When you have finished defining your runtime environment, continue with "Building runtime libraries."

Building runtime libraries

After adding an RTE to your system, also you must run this procedure before configuring your product.

Follow these steps to build the runtime libraries.

1. From the Main Menu of the Configuration tool, enter 3 (Configure products) and 2 (Select product to configure) This displays the Runtime Environments (RTEs) panel.

| COMMAND ====> |
| Actions: A Add RTE, B Build libraries, C Configure, L Load all product libraries after SMP/E, D Delete, U Update, V View values, Z Utilities |
| Action Name | Type | Sharing | Description |
| RTEBASE1 BASE | Base RTE for the SVT environment |
| RTESHAR1 SHARING RTEBASE1 | Sharing RTE for SVT environment |

Figure 96. Runtime environments panel

2. Build the runtime libraries: Enter B in the Action column next to the RTE you are creating and press Enter. This displays the JCL that you should review.

   Note: You might need to add REGION=0M to the jobcard depending on your installation. Check with your system programmer. If you do not you might be missing data sets later on.

3. Review the JCL and submit the job. Change the job name to match the member name so that you can easily identify the jobs later on.

4. Submit the job and check that the job completes successfully. All return codes should be zero.

When you have completed building the runtime libraries, continue with "Configuring Candle Management Server."

Configuring Candle Management Server

Now that you have added a Runtime Environment (RTE), you can start the configuration of the components.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to your runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:
2. Enter 1 (Candle Management Server). You must first configure the it before configuring the products that communicate with the Candle Management Server. There are six steps needed for the configuration of your Candle Management Server. They are listed in the following screen. Press F1 for Help.

3. Enter 1 (Create LU6.2 logmode). This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter. A job to create the logmode is displayed. You must submit this job unless you plan on using an existing LU6.2 logmode.

Note: This panel lets you specify the name of the LU6.2 logmode and logmode table required by the Candle Management Server. After you complete this panel, press Enter, a job to create the logmode is displayed. Review and edit (if necessary) this job. Submit this job unless you plan to use an existing LU6.2 logmode. You should get a return code of zero.

At the end of this you are returned to the Configure the CMS (V360) menu.
Note: This screen shows the defaults. These are only suggestions. Follow the guidelines for your site. Press F1 for further information.

**LU6.2 logmode**

This is the name LU6.2 logmode.

**Logmode table name**

This is the name of the logmode table that contains the LU6.2 logmode. This is required even if you do not submit the job.

**VTAMLIB load library**

This is the name of the system library that is used to contain VTAM logmode tables. This is usually SYS1.VTAMLIB. You can specify any load library if you do not want to update your VTAMLIB directly.

**VTAM macro library**

This is the name of the system library that contains the VTAM macros. This library is usually SYS1.SISTMAC.

4. Enter 2 (Specify Configuration values). This is the critical step where you declare if this is either a hub or remote Candle Management Server.

For this configuration where there is only one Candle Management Server you should specify Hub.

---

**Figure 99. Create LU6.2 logmode panel**

**Figure 100. Specify configuration values panel**

### CMS Started Task

This is the name of the started task for the Candle Management Server. This started task must be copied to your system procedure library. The default is CANSDSST.
Hub or Remote
Specify whether the Candle Management Server you are creating is a Hub or a Remote. For this configuration, enter HUB.

Security validation
Initially do not set this to Y to enable you to use the default userid, sysadmin, of your CandleNet Portal. If you do, make sure that this userid is defined to your external security manager. Specify this parameter if you want Candle Management Server security access to validate a user ID. The default is N.

Note: Do not enable security validation until your security is set. Before you add security to your Candle Management Server:
- Make sure you have configured all products and verified that they are operating properly.
- If you choose a third-party security package, verify that it is installed and configured for your site. Ensure that any userid to be used by the CandleNet Portal is defined to your external security manager.

5. Enter 3 (Specify Candle Management Server communication protocols).
Specifies the communication protocol for the Candle Management Server. It allows you to specify IP, SNA, and IPPIPE. This list determines the priority for the protocol.

```
--------------------- SPECIFY CMS COMMUNICATION PROTOCOLS ---------------------
COMMAND ==> Specify communication protocols for CMS CMSName in priority sequence.
Protocol 1 ==> IP.PIPE (SNA, IP, IPPIPE)
Protocol 2 (optional) ==> IP (SNA, IP, IPPIPE)
Protocol 3 (optional) ==> SNA (SNA, IP, IPPIPE)
```

Note: One of the protocols chosen must be SNA.

**Figure 101. Specify CMS communication protocols**

**IP.PIPE**
Specifies the use of the TCP/IP protocol for underlying communications.

**IP**
Specifies the use of the UDP/IP (User Datagram Protocol).

**SNA**
Specifies the use of Systems Network Architecture (SNA)/Advanced Program-To-Program Communications (APPC).

6. On the Specify Candle Management Server Communication Protocols panel, enter the values that you use at your site and press Enter. If you entered three values in the Specify Candle Management Server communications protocol panel, you are presented with a panel for each option. Press Enter each time. Eventually you are returned to the Configure the Candle Management Server panel.

a. Press Enter. This displays the Specify IP.PIPE communication protocol panel. Enter your hostname (do not include the domain name), IP address, started task name, and portnumber as indicated in [Figure 102 on page 120](#).
Figure 102. Specify IP.PIPE communication protocol

**Hostname**
Specify the TCP ID of the MVS mainframe to which you will connect. To get this value, issue the TSO HOMETEST command and use the first qualifier of the TCP hostname.

**Address**
Specify the TCP address of the MVS mainframe to which you will connect. To get this value, issue the TSO HOMETEST command.

**Started task**
Specify the started task name of TCP which is running on the MVS mainframe host.

**Network interface card (NIC)**
Specify the network interface card (NIC) that you prefer for the IBM application to use. During configuration, the Configuration tool adds the KDCB0_HOSTNAME= parameter in the KDSENV member of the high.level.qualifier.RTEname.RKANPAR library.

**Port number**
Specify the port number you want to use. If you are not using the default port number 1918, enter the port number you plan to use. This value is used in the KDC_FAMILIES environment variable in the KDSENV member in RKANPAR.

**Address translation**
Specify Y to configure IP.PIPE support for communication across firewalls using address translation.

---

**Command ==>**

Specify the TCP communication values for this CMS.

- **Hostname ==> hostname**
- **Address ==> IP_address**
- **Started task ==> TCP/IP**

If applicable:

- **Network interface card (NIC) ==>**
- **Interlink subsystem ==>**
- **IUCV interface in use? ==> N (Y, N)**

Specify IP.PIPE configuration

- **Port number ==> portnumber**
- **Address translation ==> N (Y, N)**
- **Partition name ==>**

Enter=Next  F1=Help  F3=Back
Note: By default, Ephemeral Pipe Support (EPS) is enabled automatically to allow IP.PIPE connections which cross a (Network address) translating firewall. This feature obviates the need for a broker partition file (KDC_PARTITIONFILE=KDCPART). If you specifically want to disable EPS, then specify Y to the Address translation field.

b. Press Enter. This displays the **Specify IP communication** panel menu. Enter your hostname (do not include the domain name), IP address, started task name, and portnumber as shown in [Figure 103]. The explanations of this panel are found in the IP.PIPE description.

c. Press Enter. This displays the **Specify SNA communication protocol** menu. Enter the prefix and the network ID as shown in [Figure 104].

---

**Figure 103. Specify IP communication protocol panel**

```plaintext
---------------------------------------- SPECIFY IP COMMUNICATION PROTOCOL ----------------------------------------

COMMAND =>>

Specify the TCP communication values for this CMS.

Hostname    => hostname
Address      => IP_address
Started task => TCPIP

If applicable
Network interface card (NIC) =>
Interlink subsystem      ==> IUCV interface in use?   ==> N (Y, N)

Specify IP configuration
Port number     => portnumber
```

Enter=Next  F1=Help  F3=Back

---

**Figure 104. Specify SNA communication protocol panel**

```plaintext
---------------------------------------- SPECIFY SNA COMMUNICATION PROTOCOL ----------------------------------------

COMMAND =>>

Specify the SNA communication values for this CMS.

Applid prefix  => prefix
Network ID     => netname  (NETID value from SYS1.VTAMLST(ATCSTRnn))
```

Enter=Next  F1=Help  F3=Back  F6=Applids

---

**Applid prefix**

Specifies the value is used to create all of the VTAM applids required by the CMS. These applids begin with the prefix, and end
with a specific value that makes each applid unique. These applids are contained in the VTAM major node.

**Network ID**
Enter the identifier of your VTAM network. You can locate this value on the NETID parameter in the VTAMLST startup member ATCSTRnn.

7. Enter 4 (Create runtime members). This creates the runtime members required by Candle Management Server. These members are created in the runtime libraries for this RTE. Edit the JCL, submit it and expect a return code of zero.

See the *Candle Management Server on OS/390 and z/OS Configuration and Customization Guide* for detailed information on configuring a Candle Management Server.

When you have finished configuring the Candle Management Server, continue with "Configuring a persistent data store (Candle Management Server)" on page 20.

### Configuring a persistent data store (Candle Management Server)

Persistent data stores are associated with each Candle Management Server, Tivoli OMEGAMON XE for CICS on z/OS, and each Monitoring Agent. You should include a persistent data store for the Candle Management Server. However the data stores for Tivoli OMEGAMON XE for CICS on z/OS and the Monitoring Agent are optional and depend whether you plan to collect system historical data.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS) > C (Adjacent to your RTE) > 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the *Configure Candle Management Server* panel (Figure 12 on page 15).

1. From the *Configure Candle Management Server* panel, enter 5 (Configure persistent datastore) and press Enter. This opens the *Allocate persistent data store* panel, see Figure 105.

```
------------------------ ALLOCATE PERSISTENT DATASTORE MENU ------------------------
OPTION ===>

Perform these configuration steps in order:

1  Modify and review datastore specifications
2  Create or edit PDS maintenance jobcard
3  Create runtime members
4  Edit and submit datastore allocation job
5  Complete persistent datastore configuration

F1=Help  F3=Back
. . . . . . . . . . . . . . . . . . . . . . . . . . .
```

*Figure 105. Allocate persistent datastore menu*

2. Enter 1 (Modify and review datastore specifications) and press Enter. This panel controls the size, the placement and the number of data sets that comprise the Persistent Datastore, or press F3 to accept the values displayed.
Note: The settings on this screen are only suggestions. Follow the guidelines for your site.

Group name
Is the name of the group. Each group contains the number of data sets specified in the Group Count field.

Data Sets lowlev
Is the low-level qualifier of the data sets name. It is suffixed with a 1-character value (1-9, A-Z) that indicates the data set number within a group. For example:

- high.level.qualifier.RTEnamel.RGENHIS1
- high.level.qualifier.RTEnamel.RGENHIS2
- high.level.qualifier.RTEnamel.RGENHIS3

Where RGENHISn is the low-level qualifier.

You may use the default values displayed or change them to meet your site’s requirements.

Group Count
Indicates the number of data sets within the group.

Note: Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one, additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

Est Cyl space
This field is used to allocate the number of datastore files you specified for the group. The CT/PDS processing computes how much space is needed to allocate the group datastore files, and how much additional required space is needed to hold overhead information. Overhead information includes the product dictionary, table records, index records, and spare room for buffers that need to be reserved for when the data set is full.

Backup, Export, and Extract
These fields are used for datastore maintenance functions. Specify Y to turn on one of these maintenance functions for a group.

You can use the Backup facility if you want to keep old history data. This facility does an MVS IEBGENER request to make an exact copy of the data set being maintained. It is a simple copy of the data set to either tape or DASD. A backed-up file also has the advantage that
nothing has to be done to the file to dynamically make the data available to the Persistent Datastore again.

Each group contains the number of data sets specified in the Group Count field. The Datasets Lowlev is suffixed with a 1-character value (1-9, A-Z) that indicates the dataset number within a group. As an example, if these are the values referenced on the Persistent Datastore Specifications panel, the PD#Psuffix job creates the Persistent Datastore members that make reference to these datastore files.

3. Enter 2 (Create or edit PDS maintenance jobcard). Edit the job card and press Enter. This specifies the job card to be used for the Persistent Datastore (PDS) KPDPROC1, KPDPROCC and KPDPROC2 maintenance jobs. The job card member (KPDJOBC) is created in the high.level.qualifier.RTEnam..RKANSAM library.

4. Enter 3 (Create runtime members). This opens JCL that you can edit and submit. You should expect a return code of zero. This job creates the persistent datastore members.

5. Enter 4 (Edit and submit datastore allocation job). This opens JCL that you can edit and submit. You should expect a return code of zero. This job allocates and initializes all data sets required for this product’s persistent datastore.

Note: This job is applicable to define a brand new PDS configuration. If the PDS data sets already exist, then delete or rename this product’s persistent datastore files if you want the configuration tool to re-allocate and re-initialize the datasets for this product’s persistent datastore.

6. Enter 5 (Complete persistent datastore configuration). This describes the steps that you need to take to copy the procedures that you have created to your procedures libraries. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see “Completing the configuration” on page 36.

See the Candle Management Server on OS/390 and z/OS Configuration and Customization Guide for detailed information on configuring a Candle Management Server.

When you have finished configuring the Candle Management Server, continue with “Configuring a OMEGAMON II for CICS.”

**Configuring a OMEGAMON II for CICS**

So far you have created a Runtime Environment and configured a Candle Management Server on your system. This procedure configures OMEGAMON II for CICS.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S IBM Tivoli OMEGAMON XE for CICS on z/OS. This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to the runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:
The following list of components requires configuration to make the product operational. Refer to the appropriate configuration documentation if you require additional information to complete the configuration.

To configure the desired component, enter the selection number on the command line. You should configure the components in the order they are listed.

**COMPONENT TITLE**

1. Candle Management Server
2. OMEGAMON II for CICS
3. IBM Tivoli OMEGAMON XE for CICS on z/OS

2. From the **Product Configuration Selection** menu, enter 2 (OMEGAMON II for CICS). The configuration panel looks like this:

```
----------------- CONFIGURE OMEGAMON II FOR CICS / RTE: RTEname -----------------
OPTION ===> Last selected
Perform these configuration steps in order:
                  Date    Time
1. Specify configuration values
2. Allocate additional runtime datasets
3. Create runtime members
4. Complete the configuration

Optional:
5. Allocate/initialize task history datasets
6. Install/update CICS global data area modules
7. Modify menu system command security
8. Install Candle Subsystem
9. Run migration utility

F1=Help F3=Back
```

3. From the **Configure OMEGAMON II for CICS** panel, enter 1 (Specify configuration values). The configuration values are displayed. Check that the name of the started task for End-to-End (ETE) is correct and is unique for this RTE. Press Enter when complete.
--- OMEGAMON II FOR CICS CONFIGURATION VALUES / RTE: RTEname ---

**OPTION ===>

**VTAM**

- Maximum number of CUA users: 99 (10-256)
- Enable ACF/VTAM authorized path: N (Y, N)

**CUA security options**

- Specify security: NONE (RACF, ACF2, TSS, NAM, None)
- Function level security resource class: (ACF2 max is 3 char)

**Started task**

- End-to-End (ETE): sorted_task_name

**Advanced options**

- Maximum number of KOCCI users (UMAX): 99 (1-99)
- Copies of OMEGAMON II address spaces: 1 (1-16)
- Fold CUA output to upper case: N (Y, N)
- Enable CUA simplified signon under MVS/ESA: Y (Y, N)
- Enable CUA WTO messages: N (Y, N)

**Enter=Next  F1=Help  F3=Back**

--- Menu System ---

**OMEGAMON II FOR CICS CONFIGURATION VALUES / RTE: RTEname Row 17 from 64**

**COMMAND ===>

Modify the parameters below to suit your site’s requirements.

--- Menu System ---

- **ID**
- **CUA Interface**

**---**

- **STC Name Applid**
- **Operator Prefix**
- **Node**
- **CICS Rgn**

**00**

- **OMEGOC2A_IYK2C2A**
- **OMEGC2A_IYK2C2A**
- **IYK2C2A**
- **IYK2C2AN**

**Note:** The screen shows some typical examples.

4. From the Configure OMEGAMON II for CICS panel, enter 2 (Allocate additional runtime datasets). There is nothing to do in this step.

5. From the Configure OMEGAMON II for CICS panel, enter 3 (Create runtime members). This creates JCL that you should review, edit and submit. You should expect return code of zero. Change the job name to, for example, the name of the member of the PDS.

6. Copy procedures to PROCLIB. This describes a series of steps that copy procedures from the Configuration Tool to your PROCLIB and VTAM definitions to your VTAMLST. This step will be deferred until the completion of the configuration of Tivoli OMEGAMON XE for CICS on z/OS, see “Completing the configuration” on page 129.

When you have finished configuring the OMEGAMON II for CICS, continue with or “Configuring a monitoring agent for a Candle Management Server in the same address space.”

---

**Configuring a monitoring agent for a Candle Management Server in the same address space**

This topic describes the procedures that are necessary to create a Monitoring Agent and link it to the Candle Management Server that is in the same address space.
See the *IBM Tivoli OMEGAMON Platform: Configuring Candle Management Server on z/OS* for detailed information on configuring a Candle Management Server.

Access the Configuration Tool and from the main menu, enter 3 (Configure products) > 2 (Select product to configure) > S (IBM Tivoli OMEGAMON XE for CICS on z/OS). This displays the Runtime Environments Panel.

1. From the Runtime Environments panel, enter C in the action column adjacent to the runtime definition. This displays the Product Configuration Selection menu. The panel looks like this:

```
----------------------- PRODUCT COMPONENT SELECTION MENU ----------------------
COMMAND ===>

The following list of components requires configuration to make the product operational. Refer to the appropriate configuration documentation if you require additional information to complete the configuration.

To configure the desired component, enter the selection number on the command line. You should configure the components in the order they are listed.

COMPONENT TITLE
1  Candle Management Server
2  OMEGAMON II for CICS
3  IBM Tivoli OMEGAMON XE for CICS on z/OS
```

*Figure 106. Product component selection menu*

2. Enter 3 (IBM Tivoli OMEGAMON XE for CICS on z/OS). To configure the products you have installed, follow the instructions on each Configuration tool panel. Help is available for each panel by pressing F1.

When you finish configuring one product, press F3 to return to the Product Component Selection Menu. Repeat this process to configure all of your products. The panel looks like this:
3. Enter 1 (Register with the local Candle Management Server). This opens a job that you can edit and submit. You should expect a zero return code.

4. Enter 7 (Install agent into a local Candle Management Server). This generates JCL that you should review, edit, submit the job and expect a return code of zero. Change the job name to, for example, the name of the member of the PDS to track the job logs.

In this configuration the Monitoring Agent is in the same address space as the Candle Management Server. This job registers the Monitoring Agent to the local Candle Management Server.

When you have finished configuring the Monitoring Agent, continue with "Loading runtime libraries."

---

**Figure 107. Configure IBM TIVOLI OMEGAMON XE For CICS on Z/OS**

3. Enter 1 (Register with the local Candle Management Server). This opens a job that you can edit and submit. You should expect a zero return code.

4. Enter 7 (Install agent into a local Candle Management Server). This generates JCL that you should review, edit, submit the job and expect a return code of zero. Change the job name to, for example, the name of the member of the PDS to track the job logs.

In this configuration the Monitoring Agent is in the same address space as the Candle Management Server. This job registers the Monitoring Agent to the local Candle Management Server.

---

**Loading runtime libraries**

You must load the runtime libraries after you:

- Install and configure the products you want in a new RTE
- Install and configure an additional product in an existing RTE
- Install maintenance, whether or not you reconfigure a product
- Change the configuration of Tivoli OMEGAMON XE for CICS on z/OS.

**Note:** The load job requires exclusive access to the runtime libraries.

Follow these steps to load the runtime libraries from the SMP/E target libraries.

1. Enter the Configuration tool and from the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.

2. On the Product Selection Menu, enter S in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. The Configuration tool displays the Runtime Environments (RTEs) panel.
3. Type L next to the RTE for which you want to load the runtime libraries and press Enter.

   **Note:** If you are sharing RTEs, both the master RTE and the sharing RTE must be loaded.

   Review the JCL and submit the job. Verify that the job completes successfully and that the return code is 04 or less.

4. When you are finished loading the runtime libraries, press F3 to return to the Main Menu.

   Now continue with "Completing the configuration."

---

### Completing the configuration

The Configuration Tool created started task procedures in the data set `high.level.qualifier.RKANSAM`. These must be copied to your procedure library. In addition the VTAM definitions that have been created must be copied to your `SYS1.VTAMLST`.

From the Runtime environments panel, enter 8 (Complete the configuration) next to your runtime definition. This describes the steps that you have to follow to ensure that you have the definitions that have been created in the configuration in your runtime environment.

Using the Configuration Tool Utilities to update your started task library, use the following steps:

1. From the Runtime environments panel, Enter Z (Utilities) next to your runtime definition. Copy the agent started task from RKANSAM to PROCLIB.

2. From the Utilities panel, Enter 8 (Create the Copy JCL). On the next panel enter the name of your procedure library, for example, USER.PROCLIB. Press Enter. Edit the JCL, submit the job. You should expect a return code of zero. This generates some JCL to create a member called KCISYPJB in `high.level.qualifier.rtename.RKANSAM`.

3. Edit KCISYPJB and submit the job. This job copies all the required started tasks from your RKANSAM library to the specified procedure library. You should expect a return code of zero. Looking through the code you will see the names of the started tasks that have been created during the configuration. There are started tasks for:
   - Candle Management Server
   - OMEGAMON II for CICS
   - Tivoli OMEGAMON XE for CICS on z/OS
   - End-to-End (ETE).

4. From the Utilities panel, Enter 9 (Create the VTAM definitions). Enter the name of your VTAM node, press Enter. This sample system copy JCL copies the VTAM definitions to VTAMLST. The Configuration tool created VTAM definitions in RKANSAM. You should copy the VTAM major node from RKANSAM to your system VTAMLST. This generates JCL to create a member called KCISYNJB in `high.level.qualifier.rtename.RKANSAM`.

5. Edit KCISYNJB and submit the job. This job copies all the required VTAM definitions from your RKANSAM library to the specified VTAMLST. You should expect a return code of zero.

6. All runtime libraries concatenated in the STEPLIB DDNAME must be APF-authorized.
7. Vary VTAM major node active. Vary the VTAM major node active, for example, 
   V NET, ACT, ID=OMEGAAN
8. Edit the started task for your Monitoring Agent. Add the following statement the 
   end of job: // RKCPXMnn DD DUMMY Where nn is a two digit value between 01-15 
   and is unique for your monitoring agent. This corresponds to the statement that 
   you add to the CICS started job.
9. Contact you local security administrator to grant the appropriate authorizations.

Now, you can verify your installation and configuration, continue with “Modifying the 
CICS started task” and “Verifying the configuration” on page 131.

If you are migrating data from previous releases or from OMEGAMON II to 
OMEGAMON XE, see Chapter 9, “Migrating.” on page 155.

Continue with “Modifying the CICS started task.”

---

Modifying the CICS started task

You can access the information from the Configure OMEGAMON II for CICS 
panel, enter 4 (Complete the configuration). This provides information that you have 
to add to your the JCL for your CICS regions. It is summarized in the following 
points.
1. Add //KC2GLBnn DD DUMMY to your CICS started task. If you want to use the 
   monitoring options in a suffixed global data area (GDA), you must add this DD 
   statement to the CICS region JCL to identify the global.
2. Add //RKC2XMnn DD DUMMY to your CICS started task. If you want to use other 
   than the default OMEGAMON II address space pair (the defaults here are 
   CANSOC0 and CANSC20 as set on Configure OMEGAMON II for CICS option 
   1) to monitor a CICS region, you must add this DD statement to the CICS 
   region JCL to identify the address space pair.
3. Add //RKCPXMnn DD DUMMY to your CICS started task.
4. Add the program KOCOME00. Program KOCOME00 is the only program loaded 
   from your CICS startup JCL’s DFHRPL concatenation. You can copy this 
   program to a separate DFHRPL to reduce PDS directory search times. If you 
   include program KOCOME00 in your PLTPI, you can ensure that the 
   OMEGAMON II address space is active before your CICS region completes 
   initializing. To do this, add the following DD statement to the CICS startup JCL: 
   //OCCIREQnn DD DUMMY
   After you add the DD statement, program KOCOME00 checks the 
   cross-memory interface task (XMIT) is running as a subtask of the menu 
   system. If the subtask is active, initialization continues. If the subtask is not 
   active, the following WTOR message appears:
   OC0806: XMCR OCCIREQ SPECIFIED IN THE STARTUP JCL BUT RKX2XMnn NOT ACTIVE.
   REPLY ABEND, IGNORE, OR RETRY.
   Where nn is the suffix specified in the //RK2XMn DD DUMMY statement in the 
   CICS startup JCL or, if no suffix was specified, by the default (00).
5. Add a DD statement for RKANMOD and concatenate the OMEGAMON II load 
   library to your DFHRPL DD statement. Here is an example of the additional 
   statements:
   //DFHRPL.....
   //
Now you have completed configuring IBM Tivoli OMEGAMON XE for CICS on z/OS, you should install the CandleNet Portal Server and CandleNet Portal client on your workstation. When you have done this continue with “Verifying the configuration” on page 38.

Verifying the configuration

Now that you have completed the configuration you can verify that it has been successful. Initially you can check that the logs generated from the jobs are clean and contain no error messages.

Verification involves:

- Starting the Candle Management Server and the CandleNet Portal Server through Manage Candle Services from your workstation.
- Start two started tasks:
  - Candle Management Server
  - OMEGAMON II for CICS
- Start your CICS regions.

After “Completing the configuration” on page 129 and “Modifying the CICS started task” on page 130, carry out the following steps:

1. Start the started task for Candle Management Server, /S taskname, and check the log for any errors.
2. On your workstation start Manage Candle Services. Start > All programs > Candle OMEGAMON XE > Manage Candle Services.

4. Start the CandleNet Portal Right-click > Start.
When CandleNet Portal opens you will see the list of CICS regions that are associated with the agent in Navigator pane at the top left hand side of the workspace.
Chapter 6. Installing CandleNet Portal server and client on Windows XP

In the package that you received with this product there are three CDs. They are:

**IBM Tivoli Data File files for z/OS.**
This contains the data files necessary for z/OS seeding.

**IBM Tivoli OMEGAMON platform**
This contains:
- Candle Management Server.
- Candle Management Agent
- CandleNet Portal Server, including CandleNet Portal Web browser client enablement (Windows only)
- CandleNet Portal Desktop Client (Windows only)
- Candle Management Workstation (Windows only)

**IBM DB2 Universal Database Workgroup Server Edition Version 8.1**

A full list of all the materials that you receive with this product can be found in *IBM Tivoli OMEGAMON XE for CICS on z/OS: Getting Started*.

**Note:** A complete account of these processes is found in the *Installing Candle Products on Windows*.

If you plan to install the Candle Management Server on a UNIX platform, see *IBM Tivoli OMEGAMON Platform: Installing and Setting up OMEGAMON Platform and CandleNet Portal on Windows and UNIX*.

Other platforms that you can install a Candle Management Server on include AIX, Solaris and HP/UX.

**Note:**
This section describes the background, and procedures that you should adopt when installing and configuring:
- CandleNet Portal Server.
- CandleNet Portal desktop client.

If you plan to install Candle Management Server on Windows, see the procedure described in “Installing Candle Management Server on Windows XP” on page 42.

The installation and configuration processes described in this information are limited to Windows XP Professional Edition with Support pack 1.

**Deploying CandleNet Portal**

To deploy CandleNet Portal at your site:
- Install at least one CandleNet Portal Server for each hub Candle Management Server. You can have more than one CandleNet Portal Server connected to the same hub Candle Management Server, for example, to provide a test environment and a production environment.

**Note:** It is recommended that you install the CandleNet Portal Server on the same machine as the Warehouse Proxy, if possible, for ease of
administration. The CandleNet Portal Server requires its own “Data Warehouse data” source if it is not installed on the same machine as the Warehouse Proxy.

Prerequisites

Note: For full details of the hardware and software, see IBM Tivoli OMEGAMON XE for CICS on z/OS: Getting Started. A summary of the main recommended hardware and software configurations are as follows:

These are:

Hardware
The recommended hardware for adequate Candle Management Server performance in an average monitoring environment is:
- Processor speed: 1 GHz CPU
- RAM: 1 GB RAM (although 512MB would be sufficient for smaller systems)

Software
You may install a Candle Management Server on an Intel-based (x86) CPU or compatible CPU running Windows XP Professional Edition, Windows 2000, or Windows 2003 Server. The CMS is not supported on DEC Alpha machines.

Installing DB2 UDB

The OMEGAMON XE installation package comes with DB2 Universal Database Workgroup Server Edition. Install DB2 UDB on the machine where you will be installing a CandleNet Portal Server.

If you only intend to install a CandleNet Portal client, you can omit this step.

Note: If you already have a DB2 UDB (version 7 or 8) installation, you need not install the DB2 UDB (version 8.1) included in your Candle package unless you want to upgrade to version 8.1.

Upgrading from a version that used MSDE or Microsoft SQL Server
If you are upgrading the CandleNet Portal Server from an earlier version that used MSDE for the CandleNet Portal Server database, the migration to DB2 UDB is done by the OMEGAMON installer. If Microsoft SQL Server (version 7.0) was used for the CandleNet Portal Server database, the OMEGAMON installer gives you the choice of moving it to DB2 UDB or keeping the database on Microsoft SQL Server.

1. On the machine where the CandleNet Portal Server will be installed, log on to Windows with a local ID that has Administrator authority. The DB2 UDB installation will add a local db2admin user account to Windows, which it cannot do if your local ID does not have Administrator authority. Without the db2admin ID, DB2 UDB is unable to create the CandleNet Portal Server database and the CandleNet Portal Server will not start.

2. Insert the DB2 Universal Database Workgroup Server Edition CD to start the install wizard.

3. Select “Install Products” and proceed through the license agreement and other screens.
4. Select the installation type Accept the defaults. Do not select Data warehousing. This is unrelated to the Candle data warehouse, which is configured separately.

5. Select the "installation" folder: Change the installation drive if necessary.

6. Set user information for the DB2 Administration Server:
   a. You can either accept the user name of “db2admin” or you can use a different name (up to eight letters and numbers).
   b. Enter a password.
   c. Do not enter a domain name in the drop-down list.

   **Note:** Follow the guidelines for your site.

   DB2 UDB requires the user name and password for all administrative tasks, particularly when you create the CandleNet Portal Server database. If the Windows Local Security Settings on this machine enables complex or long passwords, use whatever password fits the requirements. This Windows setting also affects CandleNet Portal Server installation.

   If you change your DB2 password after you install CandleNet Portal and set up the DB2 database associated with CandleNet Portal Server, then CandleNet Portal Server might not initialize correctly the next time it is started. However, the Manage Candle Services window could indicate that CandleNet Portal Server status as Started, but a user logging on to CandleNet Portal will not be able to connect. Check for SQL exceptions in the CandleNet Portal Server log.

   The installation of OMEGAMON XE may fail during the start of DB2 if the DB2ADMIN user ID and password combination is incorrect. If you have changed the password for DB2ADMIN since DB2 was installed and then try to install OMEGAMON XE, you will receive error messages.

7. On the remaining screens, select the defaults.

8. Click **Install** to start copying the files. After the installation is complete, restart Windows before installing the CandleNet Portal. (Restart Windows even if the DB2 UDB installer does not ask you.)

   **Note:** If the Windows Local Security Policy on this machine is set to require complex passwords, you must create a new Windows user named CNPS before the Candle installer can configure the CandleNet Portal Server.

---

**Installing and configuring OMEGAMON platform**

It is assumed that you have already installed a database package.

Installation and configuration is a two stage process:

1. You install the base OMEGAMON platform. This is described in the following procedure.

2. You install a specific product, in our case, Tivoli OMEGAMON XE for CICS on z/OS. You can also add other OMEGAMON products depending on the what you plan to monitor. This installation relates only to Tivoli OMEGAMON XE for CICS on z/OS. See **Installing and configuring Tivoli OMEGAMON XE for CICS on z/OS** on page 139.

   **Note:** If you are upgrading from a previous release of OMEGAMON XE, the software is loaded to your existing Candle directory. Do not create a new directory.
Follow these steps:

1. Log onto Windows using an ID with Administrator authority and close any running applications.

2. Insert the IBM Tivoli OMEGamon Platform CD into your CD ROM drive. Installation begins automatically.
   - If the installer does not start, go to the Windows directory on your CD ROM drive and run setup.exe.
   - If setup.exe initialization fails, you may not have enough free disk space to decompress the setup files.

3. From the Welcome to IBM Tivoli OMEGamon Platform panel click Next. The Software License Agreement is displayed, read the software license agreement.

4. From the Software License panel, click Accept. The Choose Destination Location dialog is displayed. The default is c:\Candle.

5. Either accept the default (recommended) or define your own path and click Next. The Select features panel is displayed. This is the point where your selection depends on the configuration that you want to deploy. The five choices are:
   - Agent Support
   - Candle Management Server
   - CandleNet Portal Server
   - Candle Portal Desktop Client
   - Candle Management Workstation

   As we are concerned with just installing the CandleNet Portal Server and CandleNet Portal Desktop Client, we can ignore the other options for the moment. Obviously, if you wanted to deploy the Candle Management Server on your workstation instead of z/OS you would need to select this as well. See "Installing Candle Management Server on Windows XP" on page 42.

6. From the Select Features panel, click both CandleNet Portal Server and CandleNet Portal Desktop Client and click Next.
7. From the Select Program folder accept the defaults and click *Next*.
8. From the Start Copying Files click *Next*. At the end of this process the Setup Type panel is displayed.
9. Deselect the *Launch Manage Candle Services....* and select *Configure CandleNet Portal* and click *Next*. The other option *Configure CandleNet Portal* is mandatory.

**Figure 109. Select Features window, CandleNet Portal**

**Figure 110. Setup Type window, CandleNet Portal**
10. On the Define CandleNet Portal Host Information panel, check that the name is the name of your host machine where you are installing CandleNet Portal Server and click **Next**. This should **not** include a domain name, such as ibm.com

A pop-up window is displayed, CNPS Data Source Configuration.

11. Enter your DB2 password and a password for the CNPS database user. Click **OK**. It is a good idea to keep these the same (for your own sanity). This step takes a few moments to complete while it populates the database.

![CNPS Data Source Config Parameters dialog]

12. On the Success panel click **OK**. The CandleNet Portal Server Configuration panel appears. If you are just installing a CandleNet Portal, go to 15 on page 139.

![CNP Server Configuration dialog]

13. For this simple configuration just click **Protocol 1** and select TCP/IP. Click **OK**. The CandleNet Portal Server Configuration panel is displayed.
14. Enter the host name of the machine where your Candle Management Server is defined. This should be the fully-qualified name. Also enter the port number that you defined in your Candle Management Server configuration. Click OK. The InstallShield Wizard Complete panel is displayed.

15. Click Finish and check the Readme.

Now, you are ready to add one or more of your agents to the IBM Tivoli OMEGAMON platform, continue with "Installing and configuring Tivoli OMEGAMON XE for CICS on z/OS."

**Installing and configuring Tivoli OMEGAMON XE for CICS on z/OS**

This procedure assumes that you have the IBM Tivoli OMEGAMON Platform installed on your workstation.

This installation and configuration adds the Tivoli OMEGAMON XE for CICS on z/OS to that platform and thus enable you to monitor your CICS regions.

1. Log onto Windows using an ID with Administrator authority and close any running applications.

2. Insert the **IBM Tivoli Data Files for z/OS** CD into your CD ROM drive. Installation begins automatically.
   - If the installer does not start, go to your CD. Open the Windows directory and run setup.exe.
   - If setup.exe initialization fails, you may not have enough free disk space to decompress the setup files.

3. From the Welcome to Tivoli OMEGAMON XE for CICS on z/OS panel click Next. The Software License Agreement is displayed, read the software license agreement.

4. From the Software License panel, click Accept The Select Features dialog is displayed. If this is the first time that you have installed CandleNet Portal and you followed the instructions in the previous procedure, there should be two features available for selection: CandleNet Portal Server and CandleNet Portal Desktop Client.
5. Select both **CandleNet Portal Server** and **CandleNet Portal Desktop Client**. Click **Next**. This displays the Select Program folder panel.

6. From the Select Program folder panel, click **Next**. This displays the Start Copying files panel.

7. From the Start Copying files panel, click **Next**. This displays the Setup Type panel.

8. Select the **Launch Manage Candle Services....** and **Configure CandleNet Portal** and click **Next**. The other option **Configure CandleNet Portal** is mandatory.

---

*Figure 114. Install Shield wizard - Select features*
Figure 115. Install Shield wizard- Setup Type

This displays the Define CandleNet Portal Host Information panel

Figure 116. Install Shield wizard- Define CNP Host information

**Note:** You should not include the domain name of your host machine.
9. Enter the host name of the machine where your CandleNet Portal Server is defined and click **Next**. The InstallShield Wizard Complete panel is displayed. 

![Install Shield wizard- complete](image)

10. Click **Finish** and check the Readme. The **Manage Candle Services** window opens.

Now, you are ready to start the CandleNet Portal Server, CandleNet Portal desktop client, and CandleNet Portal browser on your workstation to monitor your CICS systems. Continue to "Starting CandleNet Portal."

---

**Starting CandleNet Portal**

When you installed CandleNet Portal and CandleNet Portal Server, the **Manage Candle Services** window opened. This topic describes some of the features of that panel.

From your desktop, click **Start > All programs > Candle OMEGAMON XE > Manage Candle Services.**

![Manage Candle services](image)
From **Manage Candle Services** panel, right-click and from the drop-down menu you can:

- Start and stop the CandleNet Portal Server and the CandleNet Portal either as a desktop client or through a browser.
- Change the startup type. The options are Automatic, Manual and Disabled.
- Change the login feature from the default sysadmin.
- Reconfigure the CandleNet Portal Server so that it access a different Candle Management Server.
- Use the Advanced option to view trace logs and manage the CMS seed data.
- For other features see *IBM Tivoli OMEGAMON Platform: Administering OMEGAMON Products: CandleNet Portal Version 195*.

### Deleting CandleNet Portal

This procedure is a two stage process to remove:

1. Tivoli OMEGAMON XE for CICS on z/OS
2. The IBM Tivoli OMEGAMON platform.

You should not remove the latter if you have other products running on your system.

1. Stop any CandleNet Portal, CandleNet Portal Server, and Candle Management Server processes that are running on your workstation.
2. Open the Control panel and click **Add/Remove Programs**.
3. Select **IBM Tivoli OMEGAMON for CICS** and click **Change/Remove**.
4. On the **Welcome** panel select **Remove** and click **OK**. You will be prompted to remove the CNPS database.

![Removing programs dialog](image)

*Figure 119. Removing programs dialog*
5. Click **Yes**.

**Note:** If you are monitoring more than one product, click **No** otherwise you will remove the CNPS database for all your products.

6. Enter the userid and password for your database and click **OK**.

![Figure 120. Enter User ID and Password](image)

7. On the **Complete** dialog, click **Finish** to exit the process.

8. Return to the control panel and click **Add/Remove Programs**. This repeats the process for the OMEGAMON platform except that this time you are not prompted to remove the database.

**Note:** Do not remove the OMEGAMON platform if you have other products installed.

9. Select **IBM Tivoli OMEGAMON Platform** and click **Change/Remove**.

10. On the **Complete** dialog, click **Finish** to exit the process.

This process removes IBM Tivoli OMEGAMON XE for CICS on z/OS and the OMEGAMON platform from your workstation. It will have also removed the CNPS database from DB2 if you requested it. However, if you want to remove DB2 from your system you have to stop all the DB2 processes and re-enter the Control panel and click **Add/Remove Programs**.
Chapter 7. Updating and deleting runtime environments

Here are two procedures to update and delete runtime environments:

- "Updating a runtime environment."
- "Deleting a runtime environment."

Updating a runtime environment

With this topic you can change the configuration of your existing runtime environment, change the configuration of Tivoli OMEGAMON XE for CICS on z/OS or add new products to an existing runtime environment.

This procedure describes how to update the runtime environment:

1. Using the configuration tool, make the changes you want to the configuration.
2. On the Runtime Environments (RTEs) panel, use the U (Update). This displays current runtime environment values and indicates those you can change.
3. If the changes are to values that require manual steps outside of the Configuration tool to complete the configuration, perform the appropriate steps. For example, if you are using the persistent data store and you change the prefix for the procedure using the Configuration tool, you must also copy the renamed procedure to your PROCLIB.

Note: Following any changes you must Build, Configure and Load any of the affected products.

Deleting a runtime environment

If you no longer need a particular runtime environment, including the runtime libraries and the configuration values set for the RTE, you can delete it. Make sure you really do not need the RTE before proceeding. If you delete a runtime environment, any other RTE that shares libraries with it becomes inoperable.

Be aware that the delete job deletes all libraries that match the pattern:
\texttt{rhilev.RTEnamel.*}

If you have allocated libraries for this RTE with a different high-level prefix, then you will have to manually delete those libraries. Also make sure that any libraries that match the pattern \texttt{rhilev.RTEnamel.*} (that may not be part of the RTE) are renamed if you do not want to delete those libraries.

As a precaution, you should back up the entire SMP/E and RTE environment, including the INSTLIB, INSTDATA, and INSTJOBS libraries. This allows the RTE and INSTLIB to be restored as needed. Restoring only the RTE is not sufficient since the RTE information is deleted from the INSTLIB.

Follow these steps to delete a runtime environment.

1. Enter the Configuration tool and from the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.
2. On the Product Selection Menu, enter **S** in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. The Configuration tool displays the Runtime Environments (RTEs) panel.

3. Enter **D** next to the Run-Time environment you want to delete and press Enter. This displays the **Delete the Runtime Environment** panel.

```
-----------------------------------------------------
DEDELETE RUNTIME ENVIRONMENT --------------------------------
COMMAND ===>

WARNING: If you delete this RTE, all of the following will be deleted:
1. All runtime libraries in this RTE.
2. All runtime products in this RTE.
3. All configuration values set for this RTE.

Are you sure you want to delete this RTE === Y (N, Y)
```

```
RTE: RTEnname Type: SHARING Desc: RTE without CMS
Libraries High-level Qualifier Volser Unit Storclas Mgmtclas PDSE
Non-VSAM hilev P20MG1 3390 N
VSAM hilev P20MG1
Mid-level Qualifier === RTEnname
Sharing base libraries with === SMP
Copied configuration values from RTE ===
```

4. On the Delete Runtime Environment panel, specify **Y** for “Are you sure you want to delete this RTE” and press Enter.

5. Review the JCL and submit the job. In particular check the line `Delete rhilev.RTEnname.*`. Be sure that this applies only to your libraries.
   This job deletes all libraries that match the pattern.

6. Press F3 to return to the Main Menu.
Chapter 8. Collecting and storing historical data

With Tivoli OMEGAMON XE for CICS on z/OS you can collect both:
- Task history data
- System history data.

This topic provides a summary of the differences between the two. Task history data is collected through OMEGAMON II for CICS and involves the allocation and initialization of data sets. The collection of system data involves the configuration of persistent datastores associated with the Candle Management Server, Tivoli OMEGAMON XE for CICS on z/OS, and the Monitoring Agent.

You can customize Tivoli OMEGAMON XE for CICS on z/OS to collect and store historical data. You can then use CandleNet Portal to display short term history.

Tivoli OMEGAMON XE for CICS on z/OS writes its data to a persistent data store that belongs to the same z/OS image as the Candle Management Server.

For more information about the CT/PDS facility, see the IBM Tivoli OMEGAMON Platform: Historical Data Collection Guide for OMEGAMON XE Products, Versions 360 and 195.

Task history data

When you configure OMEGAMON II for CICS, you have the option of allocating a task history data set to store task data for specific CICS regions. This process is described in “Allocating task history data sets” on page 25. When you configure the persistent datastores the following partition data sets are created:
- high.level.qualifier.RTEname.RKC2HISn

Where RGENHISn is the low-level qualifier.

Note: Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one, additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

Once these datasets are set up you can use the features of CandleNet Portal to collect and store the data.

System history data

During the configuration of Tivoli OMEGAMON XE for CICS on z/OS you may have set up three persistent datastores associated with:
1. Candle Management Server
2. Tivoli OMEGAMON XE for CICS on z/OS (optional)
3. Monitoring Agent (optional)

Each of these are involved with the collection of system data. If you are using data warehousing, you must configure a persistent datastore associated with the Candle Management Server, otherwise the remaining two persistent datastores are optional. When you configure the persistent datastores the following partition data sets are created:
Candle Management Server
- `high.level.qualifier.RTEName.RGENHISn`

  Where RGENHISn is the low-level qualifier.

**Note:** Three is the supported minimum setting for all but a limited number of special purpose data sets. If you specify one, additional I/O is required to delete records when space is reused. If you specify two, data becomes unavailable when a datastore file fills up.

**Tivoli OMEGAMON XE for CICS on z/OS**
- `high.level.qualifier.RTEName.RKCPHISn`

  Where RGENHISn is the low-level qualifier.

**Monitoring Agent**
- `high.level.qualifier.RTEName.RKC5HISn`

  Where RGENHISn is the low-level qualifier.

Both the datastores associated with Tivoli OMEGAMON XE for CICS on z/OS and Monitoring Agent pass the system data to the Candle Management Server that they are linked to. This could be either a hub or remote Candle Management Server.

**Related tasks**
- “Configuring a persistent data store (Candle Management Server)” on page 20
- “Allocating task history data sets” on page 25
- “Configuring a persistent data store (Tivoli OMEGAMON XE for CICS on z/OS)” on page 29
- “Configuring a persistent data store Monitoring Agent” on page 33

---

**Collecting task history data**

This topic describes the process of configuring CandleNet Portal to collect and filter historical data. By using CandleNet Portal to control the collection of historical data, it allows the data to be collected at either the agent or the Candle Management Server, and provides the additional option of data warehousing.

To configure history data collection in the CandleNet Portal do the following:

1. From the toolbar of CandleNet Portal, click ![History Collection](image). This opens the History Collection Configuration dialog to define and start historical collection for the specified Monitoring Agents and attribute groups.

   [Figure 121 on page 149](image) shows the status panel shows:

   **Status**
   - You can select a specific Candle Management Server to view the data.

   **Select a product**
   - If you are monitoring more than one product, select the product.

   **Collection status**
   - Shows the list of attribute groups for your system. In addition it shows:
     - The time interval in minutes
     - The location where the data is collected. In this case either the Candle Management Server or the Monitoring Agent.
     - The warehouse interval status. This shows whether you are using data warehousing or not. In this example it shows that it is turned off.
     - Short term history indicates the length of time that history data is retained.
     - File name is the name of the files where the history data is stored.

   You can take the following actions from this panel.
2. From the History collection configuration window, click Configuration. In this window you can control each product and attribute group that you want to collect data. From Figure 122 on page 150 you can:

Select the product

If you are monitoring more than one product you can select specific products.

Select product groups

Select an attribute group or groups

Configuration Control

Collection interval

Select the collection interval.
Collect at
   Either the Candle Management Server or the Monitoring Agent

Short term history
   Determines how long you retain the history data for.

Warehouse Interval
   If you are using data warehousing, you can set the interval to one hour or one day.

The actions that you can take include:
   • Configure groups when you have made any changes.
   • Unconfigure groups when you want to return to the defaults for particular attribute groups.
   • Show default groups shows all the default attribute groups.

---

![History Collection Configuration](image)

Figure 122. History data collection configuration with dispatcher summary selected

3. From the **History collection configuration** window, click **Done**. This saves the changes that you have made.
4. To view the effects of the changes that you have made. From CandleNet Portal, open the navigation tree, right-click **Transaction Analysis** and click **Online Data Viewing**. Figure 123 shows the data that you have collected through historical data collection.

![Online Data Viewing workspace](image)

**Figure 123. Online data viewing workspace**

In busy systems, you can collect a huge amount of data. In *IBM Tivoli OMEGAMON XE for CICS on z/OS: Getting Started* you can estimate the amount of DASD you might need to use this function efficiently.

## Features of task history data

### Filtering

Transaction history pre-filtering is accomplished using standard CandleNet Portal query operations. When the agent finds a WHERE clause containing a filter that can be passed to On-line Data Viewing, it relays the information to the Common Interface to ensure that the record search is performed as efficiently as possible.

**Note:** The history icon always appears in the upper-left portion of the historical transaction table view. This icon is automatically set for this report to allow records within a given time range to be retrieved. It is not possible to control the behavior of On-line Data Viewing using the CandleNet Portal Historical Configuration dialogue.

### Use of wildcards

The On-line Data Viewing subtask in the OCCI region supports the use of wildcards, but only as a trailing character. Using the query editor of OMEGAMON XE, a wildcard character can appended to transaction, terminal, or user identifiers.
when the “Return a subset of the string” function is used as shown in Figure 124:

In this example, On-line Data Viewing is passed the filter AB*, requesting a display of all task identifiers that begin with the letters “AB”. The Online Data Viewing agent does not recognise the string’s starting position set in the query editor. Instead, a wildcard character (asterisk) will be appended if the string is less than the field length defined in the catalogue.

**Note:** Wildcard support cannot be provided using the “Value of expression” query editor function because the framework would filter out results that do not contain an asterisk.

Any filters set using “Scan for string within a string” are not used by the search routines of the On-line Data Viewing subtask, resulting in the subtask sending back all data that satisfies any of the other filtering criteria. Thus, the string scan will operate without the benefit of subtask indexing.

Filter settings processed by the On-line Data Viewing agent can be verified with a trace control of (UNIT:KCP ALL). Once active, records are written to RKLVLOG that show precisely which filters have been detected, and relayed, to the On-line Data Viewing subtask.

**Limiting the number of responses**

Row and scan limits previously set using the Candle Management Workstation filter panel are now found on the Advanced Options page of the query editor, as shown in the following illustration:
The advanced options are only available when the client session is in Workspace Administration Mode, defined through Administer Users on the CandleNet Portal tool bar.

The row limit tells the collector agent to stop returning records once the value set for ROWLIM is reached. Scan limit, on the other hand, tells the On-line Data Viewing subtask how many records it can read when looking for data that satisfy the search criteria. These two collection controls help ensure that excessive resources are not consumed if poor filtering choices are selected.

It is important that the number of digits associated with the row and scan limit values remain unchanged. The row limit must always be seven digits, and the scan limit must contain eight digits. The length of the field is currently used to determine the limit type because the Data Server does not pass the field name (ROWLIM or SCANLIM) to the collection agent. Therefore, if limits are changed, please ensure the digit counts are not altered.

Figure 125. Query editor advanced options

The advanced options are only available when the client session is in Workspace Administration Mode, defined through Administer Users on the CandleNet Portal tool bar.

The row limit tells the collector agent to stop returning records once the value set for ROWLIM is reached. Scan limit, on the other hand, tells the On-line Data Viewing subtask how many records it can read when looking for data that satisfy the search criteria. These two collection controls help ensure that excessive resources are not consumed if poor filtering choices are selected.

It is important that the number of digits associated with the row and scan limit values remain unchanged. The row limit must always be seven digits, and the scan limit must contain eight digits. The length of the field is currently used to determine the limit type because the Data Server does not pass the field name (ROWLIM or SCANLIM) to the collection agent. Therefore, if limits are changed, please ensure the digit counts are not altered.
Chapter 9. Migrating

Use the following topics to migrating from previous release or from one version of OMEGAMON to Tivoli OMEGAMON XE

- “Migrating your profile from OMEGAMON II to OMEGAMON XE”
- “Issues relating to migration from earlier releases” on page 157
- “Migrating from Candle Management Workstation to CandleNet Portal” on page 159
- “Seeding the Candle Management Server” on page 161

Migrating your profile from OMEGAMON II to OMEGAMON XE

CandleNet Portal provides a utility that you can use to migrate your existing OMEGAMON II profile so that the situations and thresholds in the profile can be used as predefined situations in OMEGAMON XE.

You must have CandleNet Portal installed on your workstation to access the utility. The utility you use to migrate your existing OMEGAMON II profile is provided with CandleNet Portal.

There are three steps in the process for migrating your existing OMEGAMON II profile so that the thresholds in the profile can be used as predefined situations in OMEGAMON XE. They are:

- Prepare the profile to be migrated by exporting and transferring the profile to your workstation where you have CandleNet Portal installed.
- On the workstation, run the utility to create the equivalent predefined situations.
- Make the predefined situations available by seeding the situations with the Candle Management Server.

Use the following procedure:

1. Export the file that contains the profile. To do this:
   a. Logon to your CUA interface in OMEGAMON II.
   b. Select a CICS region
   c. From the Region status panel, select Options and enter 8 (Region profiles)
   d. From the Region Profile panel, select Action and enter 5 (Export profiles)
      This shows the Export region profile, as shown in Figure 126, where you enter the name of the profile that you want to export.
   e. Using the Export option, you can export any given profile to a member.

   Figure 126. OMEGAMON II CUA interface showing export region profile panel
2. FTP the file that contains the profile to the workstation where CandleNet Portal is installed.

3. On the workstation, copy the file to drive:\Candle\CNPS. For example, if you have installed CandleNet Portal on your c: drive, you would copy the file to the c:\Candle\CNPS directory.

4. Open a DOS session and change directory to drive:\Candle\CNPS.

5. At the prompt, enter the following command. **KXE**MIGR options profile pp outfile ctl Result: The utility creates the file that contains the migrated profile, the control file, and the log (if any).

   **profile**
   Specifies the name of the file that you exported that contains the profile. This is required.

   **pp**
   Specifies the product code. This is required.

   **outfile**
   Specifies the name of the file that will contain the migrated profile. The default is Kpp_UPD.SQL (where pp is the 2 character product code).

   **ctl**
   Specifies the name of the product control file. The default is KppPROD.txt (where pp is the 2 character product code).

   **options**
   Specifies the following options:
   - **-v** Displays diagnostic messages for the utility.
   - **-?** Display help
   - **-nw** Migrate predefined situations with the status of critical and excludes the migration of situations with a status of warning.

6. When KXE**MIGR** is run, it places a member called KCP_UPD.SQL in the CNPS\SQLLIB directory.

   **Note:** The utility may put your file in c:\candle\cnps rather than c:\candle\cnps\sql. You should move it to the sql directory if this is the case.

7. From your desktop, click Start > All programs > Candle OMEGAMON XE > Manage Candle Services. This displays the Manage Candle Services dialog.

8. From the Actions menu in the Manage Candle Services window, click Advanced.

   The program displays the Seed Candle Management Server dialog.

10. On the Seed Candle Management Server dialog, specify the options you want.
    For a Candle Management Server on your workstation, click On this computer.

11. For a Candle Management Server installed on a different computer, click On a different computer. On the Non-resident Candle Management Server Connection dialog(s), specify the appropriate values and click OK. The program displays the Select Product to Seed Candle Management Server dialog.
12. On the Select Product to Seed CMS dialog, select updated file, for example kcp_upd.sql, see Figure 127 and click OK.

Manage Candle Services seeds the Candle Management Server and displays the Seed Data Operation Complete dialog box indicating whether or not the seeding completed successfully.

Using this procedure you can use the thresholds and situations from OMEGAMON II with Tivoli OMEGAMON XE.

Issues relating to migration from earlier releases

The Candle Management Workstation is shipped with Tivoli OMEGAMON XE for CICS on z/OS version 3.1.0 solely for workload definition purposes. You should not use the Reports folder supplied with the Candle Management Workstation. In addition, some of the situations provided with earlier versions of the OMEGAMON for CICS and CICSp Plex monitor are no longer necessary.

Situations

The following situations are no longer supplied in the seeding data of Tivoli OMEGAMON XE for CICS on z/OS, and should be removed using the CandleNet Portal Situation Editor:

- CICSp lex_DLIDMB Warning
- CICSp lex_DLIDMB_Critical
- CICSp lex_DLIE NQ Warning
- CICSp lex_DLIE NQ_Critical
- CICSp lex_DLIPSB Warning
- CICSp lex_DLIPSB_Critical
- CICSp lex_DLIThread Warning
- CICSp lex_DLIThread_Critical
- CICSp lex_DLIMonAct Warning
- CICSp lex_DLIMonAct_Critical
- CICSp lex_DB2Shutdown Warning
- CICSp lex_DB2Shutdown_Critical
- CICSp lex_JournalTOT_R Warning
- CICSp lex_JournalTOT_Critical

The situations listed above do not fail if they are run, since their corresponding tables still exist. However, the attributes they reference are now out-of-date because they apply to releases of CICS that are no longer supported. As a result, the situations will never be evaluated as true; provided they have not been modified in some way.
History situations from previous releases

Two history situations were used as an historical control mechanism and have been replaced by the CandleNet Portal History Configuration dialogue:
CICSplex_Hist_Workload_Control
CICSplex_Hist_Region_Control

Each of the historical situations references a table that is no longer supplied in the Tivoli OMEGAMON XE for CICS on z/OS catalogue. Consequently, the situations fail, and produce a corresponding error indication in the CandleNet Portal:

A blue “X” mark in the status field of the Enterprise Message Log indicates that the situation is invalid. You should remove these two situations if you have them installed in the Candle Management Server.

CICSplex_Hist_Region_Control references an obsolete table called Region Analysis. All of the attributes that appeared in Region Analysis have since been moved to other tables located on the CandleNet Portal navigation tree. Hence, if historical recording of the transferred attributes is desired, standard CandleNet Portal historical recording techniques should be employed, see "Collecting task history data" on page 148.

CICSplex_Hist_Workload_Control offered a means of moving Service Level Analysis history data from workload buffers into the Persistent Data Store (PDS). The function carried out by this situation is now performed by the CandleNet Portal History Collection Configuration panel, see "Collecting task history data" on page 148.

It is better to use CandleNet Portal to retrieve history from the workload collector subtask at a rate that exceeds the interval specified in the Candle Management Workstation Interval Editor Window. In this way, records are be lost when the subtask interval expires. The subtask takes measures to ensure that duplicate history records are never written to the specified data store; irrespective of how low the CandleNet Portal collection interval is set.
Migrating from Candle Management Workstation to CandleNet Portal

This topic shows how the features of CandleNet Portal have superseded the functions of Candle Management Workstation. They are:

- "Reporting function of Candle Management Workstation"
- "Using the service level analysis report" on page 160
- "Using the Service Level Analysis workspace" on page 160

**Reporting function of Candle Management Workstation**

The workload definition functions, accessed from an icon in the **Administration** folder of the Candle Management Workstation, have not been ported to the CandleNet Portal in Tivoli OMEGAMON XE for CICS on z/OS. For this reason, a copy of the Candle Management Workstation has been provided.

While the workload definition process has not changed, the same is not true for the reporting function delivered with the Candle Management Workstation. Indeed, most of the reports shown in the “Reports” folder of the Candle Management Workstation have been removed. However the Reports icon shown below continues to appear in the Candle Management Workstation main container to support the remaining reports:

![Candle Management Workstation main container](image)

*Figure 128. Candle Management Workstation main container*

Double-click on the Reports folder opens the following Candle Management Workstation window:

![Candle Management Workstation Reports folder](image)

*Figure 129. Candle Management Workstation Reports folder*

Of the seven reports listed in **Figure 129**, only the following four can be expected to function properly:

- CICS Shared Temporary Storage
- CICS Transaction Analysis (real-time only, not its historical option)
- CICS VSAM RLS Lock Analysis
- CICS Topology
Task history, collected by ONDV workspace in the Common Interface of Candle Management Workstation, is now available through the CandleNet Portal as Online Data Viewing link workspace accessed as a link from the Transaction Analysis workspace. An example of the report is shown below:

Using the service level analysis report

The Candle Management Workstation CICS Region Analysis report generated a database I/O error, making it and all of its subordinate reports unavailable on the CMW. Specifically, the Storage Summary, VSAM Analysis, and MQ reports that used to be accessed via right-click on a row of Region Analysis output can no longer be obtained in the Candle Management Workstation since their parent report is no longer supported. One other casualty of the Region Analysis failure is the CICS Connections Analysis report that attempts to read the Region Analysis table prior to driving the Connections Analysis agent.

While the Candle Management Workstation CICS Service Level Analysis report does not generate an error message, the absence of a node on its SQL means that it will never return any rows of data. Instead, you should use the Service Level Analysis node found on the CandleNet Portal navigation tree.

Using the Service Level Analysis workspace

With Tivoli OMEGAMON XE for CICS on z/OS, the Origin Node is in the Service Class table, manages the situation status. Figure 131 on page 161 shows CandleNet Portal Service Class situation behavior:
When a situation is written against the Service Level Analysis table, the Monitoring Agent collects service class data and returns an identical row set for each CICS node to which the situation has been distributed. This ensures that all of the correct nodes on the CandleNet Portal navigation tree are set with an appropriate status light.

With the new implementation of Service Level Analysis, some thought should be given to assigning Service Level Analysis situations to a minimum number of nodes on a given LPAR. If the situation is distributed to all nodes, then the number of returned rows will be the product of the service class row set times the number of subnodes in the distribution list. The only advantages to assigning a Service Level Analysis situation to more than one node in a given MVS image are:

1. It allows status lights to be set for each selected node
2. It helps ensure that an alert is raised if one CICS has gone offline in an LPAR, while another CICS is still active and being monitored.

By standardizing the use of the Origin Node field in service class reports, the Candle Management Workstation no longer recognizes a tripped SLA situation. For this reason, you should abandon using the Candle Management Workstation for status purposes, and employ its services strictly for the Workload Definition function it offers Tivoli OMEGAMON XE for CICS on z/OS.

### Seeding the Candle Management Server

When you seed the Candle Management Server, you provide the Candle Management Server with product-specific information that the Candle Management Server uses for product-provided solutions for example, predefined situations and policies.

Before seeding the Candle Management Server, verify that:

- The z/OS products are installed and available with CandleNet Portal.
The same versions of the z/OS products are installed and available with CandleNet Portal.

Also verify that the image you used to install CandleNet Portal is compatible with the products you installed and configured.

For example, if you received a product package containing tapes and a CD image, verify that an older or newer CD image of CandleNet Portal has not been installed on the workstation you will be using to seed the Candle Management Server. If you have any question about whether or not they are compatible, contact IBM Software Support.

The guidelines you follow to seed the Candle Management Server depend on the platform for the product. These platforms include:

- Distributed platforms (such as UNIX and Windows)
- z/OS

The guidelines for seeding the Candle Management Server for products on z/OS vary depending on the product.

**Note:** When you select the **Complete the Configuration** step from the **Main Menu**, the Configuration tool dynamically displays the Candle Management Server seeding requirements. The requirements that display depend upon how a particular product seeds its Candle Management Server.

Follow these steps to seed the Candle Management Server:

1. On the workstation where you installed the CandleNet Portal Server, click **Start > Programs > Candle OMEGAMON XE for CICS > Manage Candle Services.** The program displays the **Manage Candle Services** dialog.
2. From the Actions menu in the Manage Candle Services window, select **Advanced**.
3. On the **Advanced** menu, select **Seed Candle Management Server.** This displays the **Seed Candle Management Server** dialog.
4. On the **Seed Candle Management Server** dialog, specify the options you want. For a Candle Management Server on your workstation, click **On this computer.** For a Candle Management Server installed on a different computer, click **On a different computer.**
   - On the Non-resident Candle Management Server Connection dialog, specify the appropriate values and click **OK.**
   - The program displays the **Select Product to Seed Candle Management Server** dialog.
5. On the **Select Product to Seed Candle Management Server** dialog, select the products you have installed and click **OK.**

Manage Candle Services seeds the Candle Management Server and displays the Seed Data Operation Complete dialog box indicating whether or not the seeding completed successfully.
Chapter 10. Using advanced features in the Configuration Tool

Both of these features allow you to port existing runtime environments to different z/OS images. They are:

Table 7. Advanced Features Available in the Configuration Tool

<table>
<thead>
<tr>
<th>Task</th>
<th>Advanced Feature</th>
<th>Location of Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port an existing RTE to one or more z/OS images, without reconfiguring the RTE for those z/OS images</td>
<td>System Variable Support</td>
<td>“Enabling system variable support”</td>
</tr>
<tr>
<td>Replicate and transport an RTE to one or more z/OS images</td>
<td>Batch Mode Processing</td>
<td>“Using batch mode processing” on page 164</td>
</tr>
</tbody>
</table>

Enabling system variable support

You enable system variable support from the Add Runtime Environment panel. In an existing RTE, use the Update (U) command to enable system variable support.

Some older versions of products may not support the system variable feature. These products can exist in the same RTE and you will not need to reconfigure these products in the RTE.

Follow these steps to enable system variable support.

1. From the Main Menu, click Configure products > Select product to configure... and select the product you are configuring. Result: The Configuration tool displays the Runtime Environments (RTEs) panel.

2. Add a new RTE or update an existing RTE:
   a. If you are adding a new RTE, type A in the Action field and specify all other required information.
   b. If you are updating an RTE, type U in the Action field. Press Enter.
   c. On the first Add Runtime Environment panel, enter all of the required information.
   d. Press Enter to access the second Runtime Environment panel.

3. Specify the following values to enable system variable support:

   Table 8. System Variable Values

<table>
<thead>
<tr>
<th>Use z/OS system variables?</th>
<th>Specify Y to enable support. The default is N.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTE name specification</td>
<td>Specify the system variable name by which the RTE is identified in the SYS1.PARMLIB LPAR system definition member. The default is &amp;SYSNAME. This value becomes the value of the SYS parameter in all started tasks (for example, SYS='&amp;SYSNAME'). Note: Resolved system variable values cannot exceed the length of the variable name (maximum length of 8 characters).</td>
</tr>
</tbody>
</table>
Important: If you change the status of system variable support in an existing RTE (on to off), you must reconfigure all products in that RTE. This includes respecifying VTAM values and recreating runtime members.

4. (Optional) Specify the following values on the second Add Runtime Environment panel to enable other functions:

Table 9. Add Runtime Environment Values

| RTE base alias specification | If this RTE is sharing with a base RTE, specify an optional system variable specification for the base RTE. This value is inserted into the base RTE library references in all started tasks. The resolved name must be a valid library name qualifier. This field is commonly used to switch between base RTEs at different maintenance levels. You can use the RTE base alias as:
|                           | • An easy way to switch RTE bases
|                           | • An alternate way to refer to an existing base
| Note: A label of n/a will be next to this field if the current RTE is not sharing with a base RTE. |
| Applid prefix specification | Specify the VTAM applid prefix that contains system variables. Be sure to place a period after the last symbolic in the specification. The resolved prefix can be a maximum of four characters. The default is K&SYSCLONE. |
| Use VTAM model applids?     | If you want to use model applids (wildcards), specify Y. Using model applids will generate VTAM nodes that contain applids with wildcard suffixes wherever possible. These wildcards allow usage of any applids that match the pattern within the VTAM node. The default is N. |

5. When you have finished specifying the values to enable system variable support, press F3 until you return to the Main Menu.

Using batch mode processing

Once you have established a runtime environment in one address space or z/OS image, you may want to replicate this across other images that you have. This is the most likely time that you will want to use the batch mode processing utility. These topics provide detailed instructions on using the Configuration tool batch mode processing to:

• Create a new RTE by running a single batch job
• Replicate an existing RTE
• Transport a replicated RTE to other z/OS images

Batch mode processing using the Configuration tool is an alternate way of building and configuring an RTE. Instead of using the interactive Configuration tool to build and configure an RTE, you can submit a single batch job that performs all of the same processing.

The components of batch mode processing in the Configuration tool include:

Configuration tool batch job (ICATB)

ICATB is a new job that is generated into the INSTJOBS library. You submit this job to build and configure an RTE.
**Configuration tool batch parameter member**

This is a single member in INSTJOBS, that contains all of the configuration values for all products to be configured in the RTE.

**RTE Utility to create Configuration tool batch parameter member**

This utility creates the batch parameter member for an existing RTE, which can then be used for subsequent ICATB job executions. The name of the parameter member is the RTE name.

You create the Configuration tool batch job only once on an image. It can then be used for all subsequent batch mode processing on that image.

**Note:**

1. You must recreate the Configuration tool batch job if your ISPF environment has changed.
2. When the SUBMIT parameter is set to **YES**, the generated RTE configuration jobs are submitted for execution automatically if the job names do not currently exist in the INSTJOBS library. If the generated jobs already exist, then the jobs are regenerated but not automatically submitted for execution.
3. The JCL suffix must be unique for each RTE, because when the Configuration tool batch job runs, it is used in every member name that is generated in INSTJOBS. If the suffix is not unique, the jobs that are generated will conflict with other RTE jobs that may already exist in INSTJOBS.

**Planning your RTE replication process**

Batch mode processing in the Configuration tool is customized for installations that want to replicate an existing runtime environment (RTE) onto any number of z/OS images.

Once you have interactively created and configured an RTE for your products, the Configuration tool batch mode processing option allows you to collect those parameters and replicate the RTE onto any local or remote z/OS image.

The Configuration tool batch mode process involves the following three broad steps:

- Creating batch mode parameters
- Adding and configuring parameter input decks
- Creating the new RTE on the appropriate z/OS image, using the appropriate RTE transportation method

**Note:** Once an RTE has been created in batch mode, it can later be accessed and further configured using the interactive Configuration tool.

1. Edit the newly created member and invoke Configuration tool edit macros to add additional product parameter decks to it. Once you have finished adding products to the member, configure the product by changing the default parameter values as required.
2. Create the new RTE on the appropriate z/OS image using one of the following transport methods.
<table>
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<th>Transport Method</th>
<th>This method uses...</th>
<th>Advantages &amp; Disadvantages</th>
</tr>
</thead>
</table>
| Define RTE on local z/OS image using shared DASD | Interactive and batch mode Configuration tool on the local z/OS image, to create an RTE accessible to the target image. | Advantages of this method:  
- The interactive Configuration tool, located on the local image, contains the configuration information for all images.  
- Only one copy of the runtime libraries is created.  
- Only one batch job is submitted.  
The disadvantage of using this method is that this is only applicable for z/OS images with shared DASD. |
| Transport RTE from local image to remote image | Interactive and batch mode Configuration tool on the local image to create an RTE. Once the RTE has been defined, you use sample transport jobs to ship the runtime libraries and parameters to the remote image. | Advantages of this method:  
- The interactive Configuration tool, located on the local image, contains the configuration information for all images.  
- Only one batch job is submitted.  
- This is applicable for remote z/OS images that do not share DASD.  
The disadvantage of using this method is that two copies of the runtime libraries are created. |
| Transport RTE batch jobs from local z/OS image to remote image | Interactive and batch mode Configuration tool on the local image to create a set of batch jobs that can build an RTE. Once created, you use sample transport jobs to ship the batch jobs to the remote image. The jobs are manually submitted on the remote image to create the runtime libraries and parameters. | Advantages of this method:  
- The interactive Configuration tool, located on the local image, contains the configuration information for all images.  
- This is applicable for remote z/OS images that do not share DASD.  
- Only one copy of the runtime libraries is created.  
The disadvantage of using this method is that you must manually submit a series of batch jobs, or use the Auto Submit CLIST to submit the jobs that will create the RTE. |
| Transport RTE batch mode parameters from local z/OS image to remote image equipped with the Configuration tool | Interactive Configuration tool on the local image to export an existing RTE. Once the RTE parameters have been collected, you use the sample transport jobs to ship the batch mode parameters to the remote image. The batch mode Configuration tool is run on the remote image to create the runtime libraries and parameters. | Advantages of this method:  
- This is applicable for remote z/OS images that do not share DASD.  
- Only one copy of the runtime libraries is created.  
- Only one batch job is submitted.  
The disadvantage of using this method is that the interactive Configuration tool located on the local image does not contain the configuration information for all images. |
Creating batch mode parameters

Use the Create batch mode parameters processing option to export an existing RTE’s parameters into a library member.

You then copy the member and change the image-specific parameters, as necessary, to configure the RTE for its new environment.

You can generate parameter decks for all products within an existing RTE, and then copy the information into a new library member to be used during batch mode processing.

Follow these steps to generate the RTE parameters and copy the information into a new library member.
1. Enter the Configuration tool and from the Main Menu, enter 3 (Configure products) and 2 (Select product to configure). This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.
2. On the Product Selection Menu, enter S in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. The Configuration tool displays the Runtime Environments (RTEs) panel.
3. Create the new library member:
   a. Type Z next to the RTE you want to replicate and press Enter.
   b. From the RTE Utility Menu, click Create batch mode parameters and press Enter.
   c. Specify the library that will receive the batch parameter member generated by the Configuration tool. The INSTJOBS library is specified by default, and the member name will be the same as that of the current RTE.
   d. Press Enter.
4. Exit the Configuration tool.
5. Edit the INSTJOBS library and copy the exported library member to a new member name. This new member name is also used as the name of the new RTE.
6. Using ISPF Option 2, edit the new library member to reflect the settings specific to the z/OS image where the new RTE will exist.

Adding and configuring product parameter decks (optional)

You can add parameter decks for additional products to the newly created library member.

Follow these steps to add and configure parameter decks for additional products.
1. Enter the Configuration tool and from the Main Menu, enter 3 (Configure products) and ? (Services and Utilities) and . This displays the Product Selection menu, only those packages that are eligible to be configured are listed on this panel.
2. On the Product Selection Menu, enter S in the Actions field next to IBM Tivoli OMEGAMON XE for CICS on z/OS V3.1.0. The Configuration tool displays the Runtime Environments (RTEs) panel.
3. Starting from the Main Menu, click Configure Products > Services and utilities > Create batch mode job and press Enter.
Note: KCISETUP needs to be created once on an image and can be used for all subsequent parameter deck processing on that image. KCISETUP must be recreated if your ISPF environment has changed, or you subsequently split your INSTLIB.

4. Exit the Configuration tool.
5. Set the environmental variables required to run the Configuration tool edit macros:
   a. Log onto a TSO session, invoke ISPF, and then go to TSO command mode (Option 6 in ISPF).
   b. Enter the following command: EX ’shilev.INSTLIB(KCISETUP)’ where shilev is the high-level qualifier.
6. Using ISPF Option 2, edit the library member that was created using “Creating batch mode parameters” on page 167, entering the following on the command line: For SMP/E installs, enter:
   
   KCICPGEN Kppvvv
   
   where pp is the two-letter component code for the product you are configuring, and vvv represents the version of that product.

   Note: Only supply the component code and version that identifies the package you purchased. Underlying components that make up the package will be included.

7. Repeat the above command until a parameter deck is generated for all the products you want to add. For a Quick Install, enter:
   
   KCICPGEN QI
   
   The KCICPGEN command invokes the Configuration tool edit macro, which uses the Kppvvv or QI parameter within the command string to locate the correct product information (PI) member within INSTDATA. Once it finds the PI member, the edit macro scans the file and builds a list of all components and parameters required for the specified product. A product that already exists within the library member is not replaced.

8. Change the product parameter values within the library member as required. The values displayed represent default settings.

9. Once you have finished editing the library member, save your changes. The library member is now ready for batch processing.

Transporting the RTE

Use any of the following the transport methods to create the new RTE on the appropriate z/OS image.

- “Define an RTE on a local z/OS image using shared DASD” on page 169
- “Transport RTE from a local z/OS image to a remote image” on page 169
- “Transport RTE batch jobs from a local z/OS image to a remote image equipped with the Configuration tool” on page 170
- “Transport RTE batch mode parameters from a local z/OS image to a remote image” on page 171

Before using the transport methods within this section, make sure that sufficient space and library security authorizations exist.

For a list of the advantages and disadvantages for each transport method see Table 10 on page 166
Define an RTE on a local z/OS image using shared DASD

Follow these steps to define an RTE on a local z/OS image using shared DASD.

1. Start the Configuration tool on your local image.
2. Create the Configuration tool batch mode job: Starting from the Main Menu, click Configure products > Services and utilities > Create batch mode job. Press Enter.
3. Exit the Configuration tool.
4. Perform a scan on your RTE parameters:
   a. Edit ICATB, updating the BATCHLIB and BATCHMEM parameters as necessary, and setting the SUBMIT parameter to SCAN.
   b. Submit the ICATB job to scan your RTE parameters.
   c. Verify that the job completes successfully; review the parameter report; correct any errors in the parameter member; repeat the scan until a clean report is generated.
5. Create a new RTE that is accessible to the target image:
   a. Edit ICATB again, setting the SUBMIT parameter to YES. This submits the RTE configuration jobs that allocate and populate runtime libraries.
   b. Submit the ICATB job to create the RTE.
   c. Verify that the job completes successfully.

Perform any manual configuration steps on the target image, such as:
  • Copying procedures to PROCLIB
  • Copying VTAM definitions to VTAMLST
  • APF-authorizing libraries

Transport RTE from a local z/OS image to a remote image

Follow these steps to transport an RTE from a local z/OS image to a remote image:

1. Start the Configuration tool on your local image.
2. Starting from the Main Menu, click Configure products > Services and utilities > Create batch mode job. Press Enter.
3. Exit the Configuration tool.
4. Perform a scan on your RTE parameters:
   a. Edit ICATB, updating the BATCHLIB and BATCHMEM parameters as necessary, and setting the SUBMIT parameter to SCAN.
   b. Submit the ICATB job to scan your RTE parameters.
   c. Verify that the job completes successfully; review the parameter report; correct any errors in the parameter member; repeat the scan until a clean report is generated.
5. Create a new RTE that is accessible to the target image RTE:
   a. Edit ICATB again, setting the SUBMIT parameter to YES. This submits the RTE configuration jobs that allocate and populate runtime libraries.
   b. Submit the ICATB job to create the RTE.
   c. Verify that the job completes successfully.
6. Start the Configuration tool again.
7. Select the RTE you want to transport:
a. Access the Runtime Environments (RTEs) panel. (From the Main Menu, click Configure products > Select product to configure, and then select a product.)

b. Type Z next to the RTE you want to transport and press Enter.

8. On the RTE Utility Menu, click Generate sample transport JCL and press Enter. This action will cause several sample transport jobs to be generated within the RKANSAM library. Member $XPRTNDX provides a description of all generated members.

For example, to use DFDSS to transport the runtime libraries to the target image, use sample job

- XFDMP01 on the master image to dump the runtime libraries
- XDFRST01 on the target image to restore the runtime libraries

You have now successfully transported a new RTE to the target image.

Perform any manual configuration steps on the target image, such as:
- Copying procedures to PROCLIB
- Copying VTAM definitions to VTAMLST
- APF-authorizing libraries

**Transport RTE batch jobs from a local z/OS image to a remote image equipped with the Configuration tool**

Follow these steps to transport RTE batch jobs from a local z/OS image to a remote image that is equipped with the Configuration tool.

1. Start the Configuration Tool on your local image.

2. Create the Configuration Tool batch mode job:
   - a. Starting from the Main Menu, click Configure products > Services and utilities > Create batch mode job.
   - b. Press Enter.

3. Exit the Configuration tool.

4. Perform a scan on your RTE parameters:
   - a. Edit ICATB, updating the BATCHLIB and BATCHMEM parameters as necessary, and setting the SUBMIT parameter to SCAN.
   - b. Submit the ICATB job to scan your RTE parameters.
   - c. Verify that the job completes successfully; review the parameter report; correct any errors in the parameter member; repeat the scan until a clean report is generated.

5. Create the RTE generation jobs:
   - a. Edit ICATB again, setting the SUBMIT parameter to NO. This creates the RTE configuration jobs that allocate and populate runtime libraries.
   - b. Submit the ICATB job to create the RTE generation jobs.
   - c. Verify that the job completes successfully.

You have now successfully created a set of RTE configuration batch jobs that must be transported to the target image.

6. Start the Configuration tool again.

7. Select the RTE you want to transport:
   - a. Access the Runtime Environments (RTEs) panel. (From the Main Menu, click Configure products > Select product to configure, and then select a product.)
b. Type Z next to the RTE you want to transport and press Enter.

8. On the RTE Utility Menu, click Generate sample transport JCL and press Enter. This will cause several sample transport jobs to be generated within the RKANSAM library. Member $XPRTNDX provides a description of all generated members.

For example, to use DFDSS to transport the targets, INSTLIB, INSTDATA, and INSTJOBS to the remote image, use sample job

- XDFDMP03 on the master image to dump the batch jobs
- XDFRST03 on the target image to restore the batch jobs

9. Submit the batch jobs on the target image in the order listed in the Jobs Sorted By Generation Sequence section of the the Configuration tool Batch Mode job report. You can submit each job manually or use the Auto Submit CLIST to automatically submit the Configuration tool jobs on the target image. To use the Auto Submit CLIST:

a. Verify that the SMP/E target libraries are available on this image upon which the CLIST will be executed.

b. Edit the member named SUB#jclsuffix in INSTJOBS, where jclsuffix identifies the JCL suffix for the new RTE.

c. Execute the CLIST to submit the Configuration tool jobs that will create the RTE.

You have successfully created a new RTE on the target image.

10. Perform any manual configuration steps on the target image, such as:

- Copying procedures to PROCLIB
- Copying VTAM definitions to VTAMLST
- APF-authorizing libraries

Transport RTE batch mode parameters from a local z/OS image to a remote image

Follow these steps to transport RTE batch mode parameters from a local z/OS image to a remote image.

1. Start the Configuration tool on your local image.

2. Select the RTE you want to transport:

a. Access the Runtime Environments (RTEs) panel. (From the Main Menu, click Configure products > Select product to configure, and then select a product.)

b. Type Z next to the RTE you want to transport and press Enter.

3. On the RTE Utility Menu, click Generate sample transport JCL and press Enter. This will cause several sample transport jobs to be generated within the RKANSAM library. Member $XPRTNDX provides a description of all generated members.

For example, to use DFDSS to transport the targets, INSTLIB, INSTDATA, and INSTJOBS to the remote image, use sample job

- XDFDMP03 on the master image to dump the batch jobs
- XDFRST03 on the target image to restore the batch jobs

You have successfully transported the batch mode parameters to the target image.

4. Create the Configuration tool batch mode job:

a. Starting from the Main Menu, click Configure products > Services and utilities > Create batch mode job.
b. Press Enter.

5. Exit the Configuration tool.

6. Perform a scan on your RTE parameters:
   a. Edit ICATB, updating the BATCHLIB and BATCHMEM parameters as necessary, and setting the SUBMIT parameter to **SCAN**.
   b. Submit the ICATB job to scan your RTE parameters.
   c. Verify that the job completes successfully; review the parameter report; correct any errors in the parameter member; repeat the scan until a clean report is generated.

7. Create the RTE on the target image:
   a. Edit ICATB again, setting the SUBMIT parameter to **YES**. This submits the RTE configuration jobs that allocate and populate runtime libraries.
   b. Submit the ICATB job to create the RTE.
   c. Verify that the job completes successfully.

8. Perform any manual configuration steps on the target image, such as
   - Copying procedures to PROCLIB
   - Copying VTAM definitions to VTAMLST
   - APF-authorizing libraries
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