OMEGAMON II for IMS

Version 5.5.0

IMS Console Facility
Note

Before using this information and the product it supports, read the information in "Notices" on page 145.

First Edition (December 2005)

This edition applies to version 3, release 1, modification 0 of IBM Tivoli OMEGAMON XE for IMS on z/OS (product number 5698-A39) and to all subsequent releases and modifications until otherwise indicated in new editions.

This edition replaces GC32-9263-00.

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This manual describes how to configure and use the IMS Console Facility (I/CF) feature of IBM® Tivoli® OMEGAMON II® for IMS.
About This Guide

Who should read this guide

This guide is for
- Systems programmers responsible for installing I/CF
- Systems operators responsible for using the IMS Master Console

Readers should be familiar with the following topics:
- Operating systems....
- Desktop environments ...

Document set information

This section lists publications in the IBM Tivoli OMEGAMON XE for IMS on z/OS library and related documents. It also describes how to access Tivoli publications online and how to order Tivoli publications.

IBM Tivoli OMEGAMON XE for IMS on z/OS library

The following documents are available in the library:
- *Getting Started with IBM Tivoli OMEGAMON XE for IMS on z/OS*, SC32-9469
  Provides planning information for installing IBM Tivoli OMEGAMON XE for IMS on z/OS and information about the OMEGAMON XE zSeries® products.
- *Configuring IBM Tivoli OMEGAMON XE for IMS on z/OS*, SC32-9354
  Explains how to configure and customize IBM Tivoli OMEGAMON XE for IMS on z/OS and its user interfaces and components.
- *Using IBM Tivoli OMEGAMON XE for IMS on z/OS*, GC32-9351
  Describes the basics of using IBM Tivoli OMEGAMON XE for IMS on z/OS to manage real-time IMS environments.
- *IBM Tivoli OMEGAMON XE for IMS on z/OS Release Notes*, GI11-4037
  Contains information about what is new in this release, including new or revised OMEGAMON II® panels. Also contains information about problems discovered late in the testing cycle that are not included in the other publications and work-around procedures for those problems.

IBM Tivoli OMEGAMON II for IMS library

The following documents are available in the library:
  Describes the basics of using IBM Tivoli OMEGAMON II for IMS to manage realtime IMS environments.
About This Guide

- **IBM Tivoli OMEGAMON II for IMS Configuration and Customization Guide**, SC32-9356
  Explains how to configure and customize OMEGAMON II and its user interfaces and components.

- **IBM Tivoli OMEGAMON II for IMS IMS Console Facility, SC32-9357**
  Provides a comprehensive description of the features of the IMS Console Facility (ICF) component.

- **IBM Tivoli OMEGAMON II for IMS Transaction Reporting Facility, SC32-9358**
  Provides user and reference information about the features of the Transaction Reporting Facility (TRF) component.

- **IBM Tivoli OMEGAMON II for IMS Bottleneck Analysis Reference Manual, SC32-9359**
  Provides reference information and descriptions of the features of the bottleneck analysis component.

- **IBM Tivoli OMEGAMON II for IMS Historical Component (EPILOG) Reference Manual, SC32-9360**
  Provides a comprehensive description of the features of the historical component (EPILOG®).

- **IBM Tivoli OMEGAMON II for IMS Historical Component (EPILOG) User’s Guide, GC32-9361**
  Teaches you, step-by-step, how to operate the historical component (EPILOG) reporter after installation.

- **IBM Tivoli OMEGAMON II for IMS Realtime Commands Reference Manual, SC32-9362**
  Describes in detail all of the features of the OMEGAMON II command interface.

- **IBM Tivoli OMEGAMON II for IMS Response Time Analysis (RTA) Reference Manual, SC32-9363**
  Provides reference information and descriptions of the features of the response time analysis (RTA) component.

- **IBM Tivoli OMEGAMON II for IMS Application Trace Facility, SC32-9470**
  Explains how the Application Trace Facility (ATF) monitors and collects detailed information on IMS and Data base Control (DBCTL) transactions to help you analyze and improve performance.

- **IBM Tivoli End-to-End Response Time Feature Reference Manual, SC32-9376**
  Provides a description of the ETE Response Time feature and explains how to start ETE after installation and customization have been completed. Also includes a description of each ETE command argument and descriptions of the ETE error messages, return codes, and sense codes.
IBM Tivoli OMEGAMON Platform Messages

The following books document the messages issued by the OMEGAMON Platform components and products that run on it.

- *IBM Tivoli Candle Products Messages Volume 1* (AOP–ETX), SC32-9416
- *IBM Tivoli Candle Products Messages Volume 2* (EU–KLVGM), SC32-9417
- *IBM Tivoli Candle Products Messages Volume 3* (KLVHS-KONCT), SC32-9418
- *IBM Tivoli Candle Products Messages Volume 4* (KONCV-OC), SC32-9419
- *IBM Tivoli Candle Products Messages Volume 5* (ODC–VEB and Appendixes), SC32-9420

Related publications

To use the information in this guide effectively, you must have some prerequisite knowledge, which you can obtain from the following guides:

- *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®, Warehouse Proxy, Alert Adapter for AF/REMOTE®, Alert Adapter for Tivoli Enterprise Console®, and Alert Emitter for Tivoli Enterprise Console on Windows® and UNIX®.

- *Administering OMEGAMON Products: CandleNet Portal*, GC32-9180
  This document describes the support tasks and functions required for the OMEGAMON platform, including CandleNet Portal user administration.

- *Using OMEGAMON Products: CandleNet Portal*, GC32-9182
  This guide describes the features of CandleNet Portal and how best to use them with your OMEGAMON products.

- *Historical Data Collection Guide for IBM Tivoli OMEGAMON XE Products*, GC32-9429
  Describes the process of collecting historical data and either warehousing it or converting it to delimited flat files for reporting purposes. Also describes how to configure historical data collection and warehousing intervals using the CandleNet Portal describes how to maintain the Persistent Data Store used to collect and store historical data on z/OS.

- *Configuring IBM Tivoli Candle Management Server on z/OS*, GC32-9414
  Provides instructions for configuring and customizing the Candle Management Server on z/OS.

The online glossary for the CandleNet Portal includes definitions for many of the technical terms related to OMEGAMON XE software.

Accessing publications online
The documentation CD contains the publications that are in the product library. The format of the publications is PDF. 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. Access the Tivoli software information center by first going to the Tivoli software library at the following Web address:

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

Scroll down and click the Product manuals link. In the Tivoli Technical Product Documents Alphabetical Listing window, click the Tivoli OMEGAMON XE for IMS link to access the product library at the Tivoli software information center.

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 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.

For more information about these three ways of resolving problems, see “Support Information” on page 139.
Participating in newsgroups

User groups provide software professionals with a forum for communicating ideas, technical expertise, and experiences related to the product. They are located on the Internet and are available using standard news reader programs. These groups are primarily intended for user-to-user communication and are not a replacement for formal support.

To access a newsgroup, use the instructions appropriate for your browser.
Documentation Conventions

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

Panels and figures
The panels and figures in this document are representations. Actual product panels may differ.

Required blanks
The slashed-b (ɓ) character in examples represents a required blank. The following example illustrates the location of two required blanks.

ɓeBA*ServiceMonitorɓ0990221161551000

Revision bars
Revision bars (||) may appear in the left margin to identify new or updated material.

Variables and literals
In examples of z/OS® command syntax, uppercase letters are actual values (literals) that the user should type; lowercase letters are used for variables that represent data supplied by the user. Default values are underscored.

LOGON APPLID (cccccccc)
In the above example, you type LOGON APPLID followed by an application identifier (represented by cccccccc) within parentheses.

Symbols
The following symbols may appear in command syntax:

| Table 1. Symbols in Command Syntax |
|-----------------------------|-----------------------------|
| Symbol | Usage |
| | The “or” symbol is used to denote a choice. Either the argument on the left or the argument on the right may be used. Example: |
| `| YES | NO |
| | In this example, YES or NO may be specified. |
| `[ ] | Denotes optional arguments. Those arguments not enclosed in square brackets are required. Example: |
| | APPLDEST DEST [ALTDEST] |
| | In this example, DEST is a required argument and ALTDEST is optional. |
Table 1. Symbols in Command Syntax

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Usage</th>
</tr>
</thead>
</table>
| { }    | Some documents use braces to denote required arguments, or to group arguments for clarity. Example:  
            
            `COMPARE {workload} -  
            REPORT={SUMMARY | HISTOGRAM}`  
            The `workload` variable is required. The `REPORT` keyword must be specified with a value of SUMMARY or HISTOGRAM. |
| _      | Default values are underscored. Example:  
            
            `COPY infile outfile - [COMPRESS={YES | NO}]`  
            In this example, the COMPRESS keyword is optional. If specified, the only valid values are YES or NO. If omitted, the default is YES. |
Chapter overview

This chapter provides an overview of the IMS Console Facility (I/CF). It includes an introduction, a list of new functions and features, and information you need to know before you install I/CF.

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Introduction to I/CF

Overview
The IMS Console Facility (I/CF) provides a complete IMS Master Console solution for IBM Tivoli OMEGAMON II for IMS.

This unit provides an overview of the product.

Available through CUA only
I/CF takes full advantage of Candle Technologies by using the CL/Engine to facilitate the IMS Master Terminal interface. I/CF is available only through the CUA component of IBM Tivoli OMEGAMON II for IMS V300 and above.

Console support capability
I/CF provides console support for any IMS DC or DB/DC environment that has VTAM connectivity to the MVS image running the IBM Tivoli OMEGAMON II for IMS address space.

You must start IBM Tivoli OMEGAMON II for IMS on the same MVS system that runs your IMS or DBCTL subsystem if you want to:
- Get MVS messages not normally sent to the IMS Master Terminal
- Provide an I/CF Console for a DBCTL environment
- Issue MVS and VTAM commands

Important
IBM recommends that you start one IBM Tivoli OMEGAMON II for IMS CUA address space on each MVS system. You can monitor any number of IMS systems.
Refer to the overview of the sysplex configuration section of Chapter 1, in the IBM Tivoli OMEGAMON II for IMS Configuration and Customization Guide.

Single point of entry
I/CF provides a single point of entry to the IMS Master Terminal for multiple concurrent users. It also eliminates the need to define a physical device as the IMS Master Console with 24 hour per day support personnel.
New Features

Overview

This unit provides a list of new and modified features and functions that I/CF provides. The remainder of this document details these features.

New and modified features and functions

I/CF contains the following features:

- 4-way screen scrolling
- IMS, MVS, and VTAM command entry
- Multi-directional **FIND**
- Date/Time stamped Console log
- Command entry audit
- Command entry security
- Multi-color highlighting
- Console recovery facilities
- Message suppression
- Direct VTAM logon interface
- Sysout or dataset log
- User message logging
- Exception logging
- CICAT support
- Automation interface to OMEGACENTER Gateway™ for MVS
- Remote Console Interface
Storage Requirements

Introduction

This unit lists the storage requirements for I/CF.

Types of storage and space requirements

I/CF has the following additional storage requirements.

**Note:** Unless otherwise stated, the system releases all allocated storage when the IBM Tivoli OMEGAMON II for IMS CUA address space terminates.

### Table 2. Storage and Space Requirements

<table>
<thead>
<tr>
<th>Type of storage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA</td>
<td>360 bytes&lt;br&gt;Used to connect to the MVS Subsystem Interface. Multiple IBM Tivoli OMEGAMON II for IMS CUA address spaces reuse this storage. You must IPL the system to release this storage.</td>
</tr>
<tr>
<td>Extended CSA</td>
<td>Use the following guidelines for Extended CSA storage:</td>
</tr>
<tr>
<td>4K</td>
<td>520 bytes&lt;br&gt;Used to connect to the MVS Subsystem Interface. Multiple IBM Tivoli OMEGAMON II for IMS CUA address spaces reuse this storage. You must IPL the system to release this storage.</td>
</tr>
<tr>
<td></td>
<td>260 bytes&lt;br&gt;Per I/CF Master Console.</td>
</tr>
<tr>
<td></td>
<td>300 bytes&lt;br&gt;Per user-requested subsystem console.</td>
</tr>
<tr>
<td></td>
<td>300 bytes&lt;br&gt;Per IBM Tivoli OMEGAMON II for IMS CUA address space.</td>
</tr>
<tr>
<td>Private</td>
<td>Does not require additional storage</td>
</tr>
<tr>
<td>Extended Private</td>
<td>Use the following guidelines for Extended Private storage:</td>
</tr>
<tr>
<td>300 bytes</td>
<td>Per I/CF Master Console.</td>
</tr>
<tr>
<td>2k bytes</td>
<td>Per I/CF console.</td>
</tr>
<tr>
<td>160 bytes</td>
<td>Per I/CF console viewable data line.</td>
</tr>
</tbody>
</table>
Chapter overview

This chapter provides information about installing, configuring, and customizing I/CF. You configure I/CF as part of the IBM Tivoli OMEGAMON II for IMS configuration.

This chapter provides:

- a broad overview of the installation, configuration, and customization process (as well as where you can locate the information you will need)
- background about the Candle Installation and Configuration Assistance Tool (CICAT)
- an overview of how you install IBM Tivoli OMEGAMON II for IMS using CICAT
- an overview of how you configure IBM Tivoli OMEGAMON II for IMS using CICAT and a checklist listing the steps for the I/CF CICAT configuration procedure
- a checklist listing the steps for the manual configuration procedures
- a checklist listing the steps for the manual customization procedures

If you are installing IBM Tivoli OMEGAMON II for IMS for the first time or you need a reminder about the different components and modes of operation for IBM Tivoli OMEGAMON II for IMS, see the chapter “Configuration Planning and Considerations” in the IBM Tivoli OMEGAMON II for IMS Configuration and Customization Guide.

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Overview of the Process

Introduction
This section provides a broad overview of the installation, configuration, and customization process. It also includes information about accessing help when using CICAT.

Broad overview of the process
The following table contains the broad steps you follow when you install, configure, and customize IBM Tivoli OMEGAMON II for IMS. The table also shows where you can find the information you will need during each of the steps.

Table 3. Overview of the Process

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Using CICAT, install the product and create any new runtime environments.</td>
<td>Installing Candle Products on MVS and the online help for the product panel you are using</td>
</tr>
<tr>
<td>2</td>
<td>Using CICAT, configure the components you want to use.</td>
<td>Online help for the product panel you are using</td>
</tr>
<tr>
<td>4</td>
<td>Manually configure the I/CF components.</td>
<td>Chapters 3 and 5 in this guide</td>
</tr>
<tr>
<td>5</td>
<td>Manually customize the I/CF components you want to use.</td>
<td>Chapters 3 in this guide</td>
</tr>
</tbody>
</table>
Getting help with CICAT

The help for CICAT contains detailed information about using the CICAT panels. For example, the help contains information about:

- how to use the panel
- why parameters are required
- what the available action codes provide
- what the input fields mean
- what you are required to supply

To display help from any CICAT panel, press the Help key (F1) or enter HELP on the command line.

You can also display help for the help. For example, you can display information about the command to use to return to the previous topic in the help system. To display the help for help from any help panel, press the Help key (F1) or enter HELP on the command line.
CICAT Background and Requirements

Introduction

This section describes using the Candle Installation and Configuration Assistance Tool (CICAT).

You must use CICAT to install and configure IBM Tivoli OMEGAMON II for IMS and I/CF. CICAT is an ISPF dialog that guides you through the installation and configuration steps required to install this product. Data entry panels assist you in understanding your site-specific parameter values. Associated help panels assist you in understanding the CICAT process and describe the input fields on the entry panels.

CICAT is restartable. If necessary, you can end the dialog, start it again, and continue from the point of interruption. ISPF V2.3 or above is required to use CICAT.

If you have not previously installed CICAT during installation of this or any other IBM product, you must do so now. For instructions on installing CICAT, see the Installing Candle Products on MVS manual. If you want to use CICAT from a previous installation, you must ensure that it is the most current version of CICAT. The Installing Candle Products on MVS manual will help you make this determination.

Restrictions on specifying values in CICAT

*Important note:* Entering ampersand (&) in any CICAT parameter string, whether you are in interactive or batch mode, results in a CICAT abend.

Reminder about the information available

If you need information about installing IBM Tivoli OMEGAMON II for IMS using CICAT, you can locate information in the:

- *Installing Candle Products on MVS* manual
- online help for the product panel you are using
Introduction

This section provides information about the CICAT installation process, including information on:

- selecting products to configure
- managing your runtime environment

Overview of the installation process using CICAT

The following is an overview of how you select products to configure and manage your runtime environment.

1. Invoke CICAT.
2. Select from the CICAT Main Menu as follows:
   - If installing a standalone product, select the item for the product.
   - If installing from a multi-product quick install tape, select the item **MultiProduct Quick Install, nnnn level**.
3. Ensure that installation and maintenance is completed before starting configuration.
4. Select Assist **Configuration**.
5. If a target RTE has not already been defined, use action code A (Add) to define an RTE.
6. Use action B (Build) to allocate runtime libraries.
7. Use action code C (Configure) to invoke configuration of an RTE.
8. Select a product to configure, depending on how you selected from the CICAT Main Menu, as follows:
   - If you selected a single-component product on the CICAT Main Menu, the product configuration menu appears and you can proceed to configure.
   - If you selected a multi-component product, a list of components appears. Select and configure each component in the order presented.
   - If you selected a multi-product quick install tape, a list of products and components found on the tape appears. Select and configure each product/component in the order presented.
9. If you want to configure another product and it is not part of a quick install tape, return to the initial CICAT menu, select the product, and return to step 4 to select **Assist Configuration**.
10. When you are finished configuring all the products you want in an RTE, return to the Runtime Environments panel and use action code L (Load) to load the runtime libraries.
11. You can now proceed to verify and customize the products you configured in your RTE.
CICAT Configuration Procedures

Introduction
This section describes the CICAT configuration procedures for I/CF.

Prerequisites for configuring IBM Tivoli OMEGAMON II for IMS and I/CF
Before you start to configure I/CF, be sure that you have reviewed the considerations and planning information in the chapter “Configuration Planning and Considerations” in the IBM Tivoli OMEGAMON II for IMS Configuration and Customization Guide.

The following configuration procedures assume that you have:

- Completed SMP/E installation and applied maintenance for IBM Tivoli OMEGAMON II for IMS or for a MultiProduct Quick Install tape that includes IBM Tivoli OMEGAMON II for IMS, as described in your Installing Candle Products on MVS manual.

Reminder about the information available
If you need information about configuring I/CF using CICAT or specific information about the values you specify using CICAT, see the online help for the product panel you are using.
Accessing the Configure IBM Tivoli OMEGAMON II for IMS menu

To begin IBM Tivoli OMEGAMON II for IMS configuration:

1. Start CICAT. (For a reminder, see your Installing Candle Products on MVS manual.)
2. On the CICAT Main Menu:
   - If you installed the MultiProduct Quick Install tape, select MultiProduct Quick Install.
     
     To preview the list of products included in your MultiProduct Quick Install tape, you can use action code V (View Additional Information) on MultiProduct Quick Install.
   
   - If you installed IBM Tivoli OMEGAMON II for IMS as a separate product, select it.
3. On the Installation/Configuration Primary Menu, select Assist Configuration.
4. On the Runtime Environments panel, use action code C (Configure) on the RTE you are ready to configure.
5. If you installed the MultiProduct Quick Install tape or a multicomponent product, select IBM Tivoli OMEGAMON II for IMS on the Product Configuration Selection Menu.
6. Proceed to use the Configure IBM Tivoli OMEGAMON II for IMS Menu.
**Example of the Configure IBM Tivoli OMEGAMON II for IMS menu in CICAT**

The following figure is an example of the Configure IBM Tivoli OMEGAMON II for IMS menu.

```
-------------      CONFIGURE OMEGAMON II FOR IMS ------------
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  Configure I/CF console commands
6  Configure I/CF trap commands
7  Install Candle Subsystem
8  Run migration utility
9  Install BookManager data

F1=Help   F3=Back
```
CICAT configuration checklist

The following table contains the steps for configuring I/CF, that you perform on the CICAT Configure IBM Tivoli OMEGAMON II for IMS menu. The steps are listed in the sequence in which they are to be performed. Use the ✔ column to check off steps as you complete them.

Table 4. CICAT Configuration Procedure Checklist

<table>
<thead>
<tr>
<th>✔</th>
<th>CICAT Configuration Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use <strong>Configure I/CF console commands</strong> to specify the IMS console number and console commands parameters. See the online help and sub-parameter descriptions in “ICFCONSL command” on page 103 for more information about how to complete these fields. The result depends on what is specified in the LOG field: Log using Dataset (D), Sysout (S), or No (N) logging. If D is specified, enter the dataset information. If S is specified, enter the printing information. If N is specified, there is no logging.</td>
<td></td>
</tr>
<tr>
<td>Use <strong>Configure I/CF trap commands</strong> to specify the IMS trap number and trap commands parameters. See the online help and sub-parameter descriptions for the ICFTRAP command on page “ICFTRAP command” on page 110 for more information on how to complete these fields.</td>
<td></td>
</tr>
</tbody>
</table>
Manual Configuration Procedures

Introduction
This section provides information about performing manual configuration procedures for I/CF.

Reminder about the information available
The checklist in the following table contains the location where you can find the information you will need.

Manual configuration checklist
The following table contains the steps you perform manually to configure I/CF. The steps are listed in the sequence in which they are to be performed. Use the ✔ column to check off steps as you complete them.

Table 5. Manual Configuration Procedure Checklist

<table>
<thead>
<tr>
<th>✔</th>
<th>Manual Configuration Step</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Configure I/CF IMS SYSGEN changes using “Changing the IMS system generation” on page 39.</td>
</tr>
<tr>
<td></td>
<td>Configure I/CF VTAM changes using “Defining the VTAM Major Node for SYSA” on page 56.</td>
</tr>
</tbody>
</table>
Manual Customization Procedures

Introduction
This section provides information about performing manual customization procedures for I/CF.

Reminder about the information available
The checklist in the following table contains the location where you can find the information you will need.

Manual customization checklist
The following table contains the steps you perform manually to customize I/CF. The steps are listed in the sequence in which they are to be performed. Use the ✔ column to check off steps as you complete them. IBM recommends that you review the entire process before you begin customizing I/CF.

Table 6. Manual Customization Procedure Checklist

<table>
<thead>
<tr>
<th>✔</th>
<th>Manual Customization Step</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Define an I/CF console using “Defining an I/CF Console” on page 38.</td>
</tr>
<tr>
<td></td>
<td>Define a direct VTAM interface using “Defining a Direct VTAM Interface” on page 40.</td>
</tr>
<tr>
<td></td>
<td>Define an interface for entering VTAM commands using “Defining an Interface for Entering VTAM Commands” on page 42.</td>
</tr>
<tr>
<td></td>
<td>Define a command resource class using “Defining a Command Resource Class” on page 44.</td>
</tr>
<tr>
<td></td>
<td>APF-authorize OMEGAMON II using “APF-Authorization Requirements” on page 46.</td>
</tr>
</tbody>
</table>
Chapter overview

This chapter describes how to manually customize the IMS Console Facility by defining an I/CF Console, defining a direct VTAM interface, defining a VTAM command entry interface, and defining a command resource class.

*Note:* Use the procedures in this chapter when you are modifying an existing system.

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  - Overview ...................................................................................... 38
  - Using the ICFCONSL command .................................................. 38
  - Changing the IMS system generation .......................................... 39
  - Defining a VTAM APPLID ............................................................ 39
- Defining a Direct VTAM Interface .................................................. 40
  - Overview ...................................................................................... 40
  - Modifying KI2START ................................................................. 40
  - Defining the VTAM APPLID ........................................................ 41
- Defining an Interface for Entering VTAM Commands ....................... 42
  - Overview ...................................................................................... 42
  - Defining a Secondary Program Operator (SPO) applid .............. 42
  - Modifying the startup parameters ............................................ 43
- Defining a Command Resource Class ............................................ 44
  - Overview ...................................................................................... 44
  - Creating a command resource class name table ....................... 44
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  - Overview ...................................................................................... 46
  - APF-authorizing OMEGAMON II ................................................. 46
Defining an I/CF Console

Overview

You can define any number of IMS Master Terminals to a single IBM Tivoli OMEGAMON II for IMS address space. This manual method of defining a master console consists of issuing the ICFCONSL command, changing the IMS system generation, and defining the VTAM APPLID. This unit tells you how to do each of these steps.

Note: For these changes to take effect, stop/restart the IBM Tivoli OMEGAMON II for IMS CUA address space.

If you choose to use CICAT, see “Installing, Configuring, and Customizing I/CF” on page 23.

Using the ICFCONSL command

Define the I/CF console by modifying the IBM Tivoli OMEGAMON II for IMS startup command.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Edit rhilev.midlev.RKANCMD(KI2START).</td>
</tr>
</tbody>
</table>
| 2    | Add the ICFCONSL command and the appropriate parameters to KI2START.  
     | See “ICFCONSL command” on page 103 for detailed information about the ICFCONSL command. |
| 3    | Save KI2START. |
Changing the IMS system generation

The following is an example of the IMS system generation changes you need to make to define the IMS Master Console for use by I/CF.

**Note:** This is only required for IMS DC or IMS DB/DC systems.

Figure 1. Sample IMS System Generation Changes

```
***
*** IMS MASTER CONSOLE DEFINITION FOR I/CF
***
TYPE        UNITYPE=SLUTYPE1
TERMINAL    NAME=xxxxxxxx,COMPT1=(CONSOLE,BASIC-SCS1)
NAME        (xxxxxxxx,MASTER)
NAME        (xxxxxxxx)
***
```

Defining a VTAM APPLID

The following is an example of the VTAM APPLID you need to define the IMS Master Console for use by I/CF.

Figure 2. Sample IMS Master Console Definition

```
***
*** VTAM APPLID FOR I/CF MASTER CONSOLE
***
ICFMJNOD   VBUILD     APPL
xxxxxxxxxx APPL       AUTH=(ACQ,NVPACE),EAS=1,ACB=yyyyyyyy
```

In the example above,

- **xxxxxxxx** The 8-character VTAM APPLID. This must match the IMS system generation NAME subparameter in the TERMINAL macro. See Figure 1 above.

- **yyyyyyyy** The VTAM ACB name. If you omit this subparameter, VTAM defaults to the APPLID as the ACB name.

**Note:** The ACB subparameter of the ICFCONSL command requires the ACB name, not the APPLID.
Defining a Direct VTAM Interface

Overview

A direct VTAM interface allows you to log on to the IMS Console Facility by typing the logon applid for I/CF.

There are 2 steps to defining a direct VTAM interface, as follows:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Modify KI2START.</td>
</tr>
<tr>
<td>2</td>
<td>Define the VTAM APPLID.</td>
</tr>
</tbody>
</table>

This unit describes each of these steps.

**Note:** To make these changes take effect, stop/restart the IBM Tivoli OMEGAMON II for IMS CUA address space.

Modifying KI2START

Use the following procedure to modify KI2START.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Edit rhilev.midlev.RKANCMD(KI2START).</td>
</tr>
<tr>
<td>2</td>
<td>Insert the following line:</td>
</tr>
<tr>
<td></td>
<td><strong>DIALOG yyyyyyyy KI2PICF</strong></td>
</tr>
<tr>
<td></td>
<td><em>where yyyyyyy is the ACB name.</em></td>
</tr>
<tr>
<td>3</td>
<td>Save KI2START.</td>
</tr>
</tbody>
</table>
Defining the VTAM APPLID

The following is an example of the VTAM APPLID you need for the direct VTAM interface.

Figure 3. Sample Direct VTAM Interface Definition

```plaintext
*** VTAM APPLID FOR DIRECT VTAM INTERFACE
***
ICFDLOG    VBUILD   APPL
xxxxxxxxxx  APPL     AUTH=(ACQ,NVPACE),EAS=100,ACB=yyyyyyyy,PARSESS=YES
```

In the example above,

- `xxxxxxxx` The 8-character VTAM APPLID.
- `yyyyyyyy` The VTAM ACB name.

This must match the ACB name you used when you modified KI2START in the section, “Defining a Direct VTAM Interface” on page 40.
Defining an Interface for Entering VTAM Commands

Overview

There are two steps to defining an interface for entering VTAM commands, as follows:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Define a VTAM secondary program operator (SPO) APPLID.</td>
</tr>
<tr>
<td>2</td>
<td>Modify the IBM Tivoli OMEGAMON II for IMS CUA startup parameters.</td>
</tr>
</tbody>
</table>

This unit describes each of these steps.

**Note:** To make these changes take effect, stop/restart the IBM Tivoli OMEGAMON II for IMS CUA address space.

Defining a Secondary Program Operator (SPO) applid

The following is an example of the SPO APPLID you need to define the interface for entering VTAM commands.

**Figure 4. Sample SPO APPLID Definition**

```plaintext
***
*** SPO APPLID FOR VTAM COMMAND ENTER INTERFACE
***
ICFSPO VBUILD APPL
xxxxxxxx APPL AUTH=(SPO,NVPACE),EAS=1,ACB=yyyyyyyy,PARSESS=YES
```

In the example above,

- `xxxxxxxx` The 8-character VTAM APPLID.
- `yyyyyyyy` The VTAM ACB name.

This must match the ACB name you use when you modify the IBM Tivoli OMEGAMON II for IMS startup parameters. See “Modifying the startup parameters” on page 43.
Defining an Interface for Entering VTAM Commands

Modifying the startup parameters

Use the following procedure to modify the IBM Tivoli OMEGAMON II for IMS startup parameters. If you want to modify these parameters, you must first copy the member to the runtime library and then edit it.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Copy KI2INVPO from your SMP/E target parameter library, thilev.TKANPAR, to your runtime parameter library, rhilev.midlev.RKANPAR.</td>
</tr>
<tr>
<td>2</td>
<td>Edit rhilev.midlev.RKANPAR(KI2INVPO). Insert the following line: yyyy yyyy SHARE(16) where yyyy is the ACB name, as in KI2START.</td>
</tr>
<tr>
<td>3</td>
<td>Save KI2INVPO.</td>
</tr>
</tbody>
</table>
Defining a Command Resource Class

Overview

To use an external security system to validate commands that you enter through an I/CF console, you must define a Command Resource Class to the IBM Tivoli OMEGAMON II for IMS CUA address space.

To define a command resource class, modify the Network Access Manager (NAM) security parameters, as follows:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Create a command resource class name table.</td>
</tr>
<tr>
<td>2</td>
<td>Specify the command resource class name table to the IBM Tivoli OMEGAMON II for IMS CUA address space.</td>
</tr>
</tbody>
</table>

This unit describes each of these steps.

Note: To make these changes take effect, stop/restart the IBM Tivoli OMEGAMON II for IMS CUA address space.

Creating a command resource class name table

Use the following procedure to create the command resource class name table:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Edit <code>rhilev.midlev.RKANPAR(xxxxxxxx)</code>. Substitute any valid member name for <code>xxxxxxx</code>. IBM recommends <code>KI2ICFCL</code>.</td>
</tr>
<tr>
<td>2</td>
<td>Insert the following line: <code>ICFCMD EXTERNAL=yyyyyyyy</code> where <code>yyyyyyyy</code> is the command resource class name you use to define your external security system for I/CF command resources. See “Command Entry Security” on page 87.</td>
</tr>
<tr>
<td>3</td>
<td>Save the member.</td>
</tr>
</tbody>
</table>
Specifying the command resource class name table

Use the following procedure to specify the command resource class name table to the IBM Tivoli OMEGAMON II for IMS CUA system:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Edit <code>rhilev.midlev.RKANPAR(KI2INNAM)</code>.&lt;br&gt;Insert the following line:&lt;br&gt;<code>CLASS=xxxxxxxx</code>&lt;br&gt;where <code>xxxxxxxx</code> is the name of the <code>rhilev.midlev.RKANPAR</code> member you specified when you created a command resource class name table on page 44.</td>
</tr>
<tr>
<td>2</td>
<td>Save KI2INNAM.</td>
</tr>
</tbody>
</table>
APF-Authorization Requirements

Overview

OMEGAMON II requires APF authorization for the JOBLIB or STEPLIB dataset(s) that OMEGAMON II uses for execution. This unit tells you how to APF-authorize OMEGAMON II.

APF-authorizing OMEGAMON II

You can APF-authorize OMEGAMON II by adding the dataset name or names with the appropriate volume identification to your current SYS1.PARMLIB(IEAAPFxx) member and doing an IPL of your MVS operating environment.

You need to authorize the following datasets:

- rhilev.midlev.RKANMOD
- rhilev.midlev.RKANMODL

Notes:

1. If one library in a steplib or joblib concatenation requires APF authorization, all libraries in the concatenation require APF authorization or all libraries will lose their APF status. You may already have APF authorization, if you have already installed other IBM products.

2. ETE does not pertain to DBCTL users.
Chapter overview

This chapter describes the overall automation strategy for I/CF, explains how to define automation for an I/CF console, and describes how to install the I/CF Automation Interface Exit.

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  Identifying I/CF messages in OMEGACENTER Gateway for MVS 49
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  Overview ................................................................. 50
  Automating an I/CF console .......................................... 50
Providing an Automation Exit ............................................. 51
  Overview ................................................................. 51
  Assemble and link the automation interface exit .............. 51
Automation Strategy

Overview

IBM designed I/CF to provide an automation interface between an I/CF console and OMEGACENTER Gateway for MVS. This unit discusses the overall automation strategy of I/CF.

External requirements

You can use the automation interface to provide full IMS message automation without the use of the AOI exit that OMEGACENTER Gateway for MVS provides. To do this, you must assemble and link an interface exit using OMEGACENTER Gateway for MVS macros and load modules. See “Providing an Automation Exit” on page 51 for more information.

I/CF provides a fully functioning sample program which sends all messages to OMEGACENTER Gateway for MVS using AOSIM. See the OMEGACENTER Gateway for MVS User’s Guide for complete information about the AOSIM facility.

Messages sent through the automation interface

I/CF passes the following messages to the OMEGACENTER Gateway for MVS interface exit:

- IMS Master Terminal messages I/CF retrieves for an IMS DC or IMS DB/DC Master Terminal
- I/CF messages including messages users generate through the I/CF AFOPER command and which are not sent to the Master Console.
- Exception messages the IBM Tivoli OMEGAMON II for IMS CUA sends to the I/CF console

Note: OMEGAMON II does not pass MVS Subsystem Interface messages to the automation interface routine because OMEGACENTER Gateway for MVS already has access to them.
Identifying I/CF messages in OMEGACENTER Gateway for MVS

The automation interface exit gives your OMEGACENTER Gateway for MVS automation routines the ability to distinguish between an MVS Subsystem Interface message and an I/CF console message.

All messages the system sends to OMEGACENTER Gateway for MVS from I/CF have a jobtype of **IMS**. You can find this value in the AOJTYPE global variable.

*Note:* You can find a description of global variables in the OMEGACENTER Gateway for MVS User’s Guide.

The system sets the AOCONNM global variable to the IMS console name (the VTAM ACB name). If this is an IMS DBCTL system, the system sets the console name equal to the IMSID.

The system then sets the AOJOBNM global variable to the IMSID. I/CF messages appear as WTO messages to OMEGACENTER Gateway for MVS.

*Note:* I/CF messages sent to the automation interface are **not** sent to the MVS Master Console.
Defining Automation for an I/CF Console

Overview
This unit describes how to specify that you want the system to send messages to the I/CF automation interface exit.

Automating an I/CF console
When you define an I/CF console, use the AUTO subparameter on the ICFCONSL command. See “ICFCONSL command” on page 103 for more information.
Providing an Automation Exit

Overview

This unit describes how to install the I/CF Automation Interface Exit (KI2AOSIM).

Assemble and link the automation interface exit

The I/CF Automation Interface Exit must have a load module name of KI2AOSIM. The system loads this module when the IBM Tivoli OMEGAMON II for IMS CUA address space initializes.

See *thilev.TKANSAM(KI2AOSIM)* for a fully functioning sample interface module. This sample sends all messages to the first available OMEGACENTER Gateway for MVS address space.

If you are manually configuring I/CF, use the following procedure to make the automation interface functional:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Copy KI2AOSIM from your SMP/E target sample library, <em>thilev.TKANSAM</em>, to your runtime sample library, <em>rhilev.midlev.RKANSAM</em>.</td>
</tr>
<tr>
<td>2</td>
<td>Follow the instructions in <em>rhilev.midlev.RKANSAM(KI2AOSIM)</em> to assemble and link the sample module.</td>
</tr>
<tr>
<td>3</td>
<td>Start or restart the IBM Tivoli OMEGAMON II for IMS CUA address space to make the automation interface functional.</td>
</tr>
</tbody>
</table>
Providing an Automation Exit
Chapter overview

This chapter tells you how to define an I/CF Remote Console Interface, which allows you to connect one or more I/CF Remote Consoles to a Master I/CF Console.

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Defining an I/CF Remote Console Interface

Overview

The I/CF Remote Console Interface is a bi-directional VTAM interface that allows you to access all I/CF Console messages. The Remote Console also can issue IMS, MVS, VTAM, and AFOPER commands to be executed by the I/CF Master Console. Responses to the commands are sent back to the I/CF Remote Console.

Using the I/CF Remote Console Interface

The following diagram shows the I/CF Remote Console Interface used to connect an I/CF Remote Console to an I/CF Master Console.

This example shows an IMS subsystem on SYSA, which can be an IMS DB/DC, DBCTL, or DCCTL system.

Figure 5. I/CF Remote Console Connected to an I/CF Master Console

To define an I/CF Remote Console Interface you must make system generation changes, define an IMS Applid, define a VTAM Major Node, and specify ICFCONSL command parameters. The next two pages provide details.
Changing the IMS system generation

The following is an example of system generation changes needed to define the IMS Master Terminal:

Figure 6. Sample IMS System Generation Changes

```
***
*** IMS MASTER TERMINAL DEFINITION FOR I/CF
***
TYPE        UNITYPE=SLUTYPE1
TERMINAL    NAME=IMSAMSTR,FBUF=256,OPTIONS=(TRANSRESP),
            COMPT1=(CONSOLE,BASIC-SCS1)
NAME        (xxxxxxxx,MASTER)
NAME        (xxxxxxxx)
***
```

This definition is required in order to allow the IMS and I/CF systems to connect. I/CF supports only an LU1 interface to a VTAM terminal. This example shows how to define the IMS Master Terminal as an LU1 device.

If I/CF is unable to connect to the IMS Master Terminal you may assign the second LTERM to another terminal definition within the IMS system, thereby ensuring a backup access to the IMS Master Terminal.

Identifying the IMS Applid

When defining a VTAM I/CF Console, you need to provide the IMS applid. This can be found in the APPLID subparameter of the COMM macro.

Figure 7. Sample IMS Applid

```
***
***DEFINE IMS APPLID USING SYSGEN PARAMETERS
***
COMM RECANY=...,
    APPLID=IMS610A,
    PASSWORD=...,
    OPTIONS=...,
    COPYLOG=...
```
Defining an I/CF Remote Console Interface

Defining the VTAM Major Node for SYSA

This example shows the VTAM Major Node parameters for SYSA.

The ACBNAME subparameter on the VTAM APPL statements below is not required. If you do not specify an ACBNAME, VTAM uses the VTAM Applid as a default.

Figure 8. Sample VTAM Major Node with a Remote Console Interface.

```
***
*** VTAM MAJOR NODE WITH A REMOTE CONSOLE INTERFACE
***
ICFMTO    VBUILD TYPE=APPL
IMSAMSTR  APPL   AUTH=(ACQ,NVPACE),ACBNAME=R11I225M
IMSARMOT  APPL   AUTH=(ACQ,NVPACE),ACBNAME=R11I2REM,PARSESS=YES,EAS=20
```

When defining a VTAM I/CF console, VTAM must be notified of the interface to I/CF. This is accomplished by defining the VTAM ACBs and APPLIDs in a major node. Typically, the ACBNAME defaults to the APPLID (columns 1-8 on the APPL statement.) Also, the major node name is the same as the member name within your SYS1.VTAMLST dataset where these parameters are stored.

I/CF opens the VTAM ACBs and this notifies VTAM of the APPLIDs that will be processed by I/CF. When other applications, (that is, IMS) want to connect to I/CF, they do so by requesting a connection to the VTAM APPLID. For this reason, I/CF and the VTAM major node need to be activated on the same system. When an IMS system on another MVS image wants to connect to I/CF, it makes the connection request to its local VTAM which is then sent to the VTAM which is local to I/CF. (This is known as a Cross-domain request.)

To summarize, an application requests a session with a VTAM APPLID but processes session requests through a VTAM ACB. I/CF requests a session with the IMS APPLID (as specified on the COMM macro) and IMS requests a session with the I/CF Console VTAM APPLID. VTAM sends session requests to I/CF through the VTAM ACB.
Specifying the ICFCONSL command parameters

The following example creates an I/CF Master Console on SYSA in Figure 9.

To provide an I/CF Remote Console Interface, you must define a second VTAM applid by specifying the REMOTEACBNAME subparameter of the ICFCONSL command, as shown below. In this case, the REMOTEACBNAME (Master Terminal) is R11I2REM.

Here, the APPLID of the IMS system on SYSA in Figure 9 is IMS610A.

Figure 9. Sample Parameters for I/CF Remote Console Interface

```plaintext
*** I/CF MASTER CONSOLE WITH I/CF REMOTE CONSOLE INTERFACE
*** ICFCONSL -
   ACB(R11I225M) -
   DATEFORMAT(2) -
   EXCEPTIONUSERID(USER1) -
   IMSAPPL(IMS610A) -
   IMSID(IMSA) -
   LOGCLASS(X) -
   LOGDEST(ARCY) -
   LOG MASTER VIEW SUBSYSCONSOLE AUTO
   REMOTEACBNAME(R11I2REM) -
   SESSNAME(SP11 IMS PRODUCTION) -
   VIEWSIZE(25000) -
```

If you want to issue commands from a Remote Console to be executed at the I/CF Master Console, you must specify the MASTER subparameter, as shown in the example above.

For more information on the ICFCONSL command syntax, see “ICFCONSL command” on page 103.
Defining an I/CF Remote Console

Overview
This unit describes how to define an I/CF Remote Console. You must specify certain subparameters as shown in the following examples.

Defining the VTAM Major Node for SYSB
This example shows the VTAM Major Node subparameters required to define the I/CF Remote Console on SYSB. SYSB is the Remote Console in Figure 9 on page 57. To connect to an I/CF Remote Console Interface, you must specify the DLOGMOD=SCS (or other LU1 VTAM logmode) subparameter on the VTAM Applid for the I/CF Remote Console, as shown below.

Figure 10. Sample VTAM Major Node for the I/CF Remote Console Interface

```plaintext
*** VTAM MAJOR NODE FOR I/CF REMOTE CONSOLE INTERFACE
***
ICFREMOT VBUILD TYPE=APPL
IMSAREM APPL AUTH=(ACQ,NVPACE),DLOGMOD=SCS
```
Remote Console parameters

When you create an I/CF Remote Console, it adopts many of the attributes of the I/CF Master Console:

- Because all the IMS, MVS, VTAM, and AFOPER commands are sent to the I/CF Master Console, you need not specify the SUBSYS_CONSOLE (subsystem consoles) or AUTO (automation) parameters of the ICFCONSL command.

- Messages received at the I/CF Remote Console carry a Date/Time Stamp format, as specified at the I/CF Master Console via the DATEFORMAT parameter of the ICFCONSL command.

The following example shows the ICFCONSL command parameters required to define the I/CF Remote Console on SYSB. The ICFCONSL command is found in the KI2START member of rhilev.midlev.RKANCMDB.

Figure 11. Sample Parameters for I/CF Remote Console

```plaintext
***
*** I/CF REMOTE CONSOLE PARAMETERS
***
ICFCONSL -
  ADB (IMSAREM)  -
  IMSAPPL (IMSARMOT)  -
  IMSID (IMSA)  -
LOGCLASS (A)  -
LOGDEST (TONY)  -
LOG VIEW MASTER  -
REMOTE  -
SESSNAME (SP11 IMS PRODUCTION)  -
VIEWSIZE (25000)  -
```

The REMOTE subparameter defines this console as an ICF Remote Console.
Security

I/CF Remote Console

Command Entry Authorization occurs at the I/CF Remote Console. The I/CF Master Console does not validate commands received through the I/CF Remote Console Interface. See “Set Up Logon Security” on page 80 for more information on security.
Chapter overview

This chapter tells you how to use I/CF. It includes information on logon methods, navigation tools, entering commands, and switching logs.

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</tr>
<tr>
<td>Switching logs</td>
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</tr>
<tr>
<td>Results</td>
<td>77</td>
</tr>
</tbody>
</table>
Logon Methods

Overview

There are three logon methods you can use to access I/CF. These are:

- Direct
- Indirect
- Integrated

This unit describes these methods.

Direct logon

Use the following procedure to log on directly to I/CF.

**Note:** You must define a direct VTAM interface to perform this procedure. See “Defining a Direct VTAM Interface” on page 40 for more information.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log on to the IMS Console Facility by typing the logon applid for I/CF.</td>
</tr>
</tbody>
</table>
| 2    | Press Enter.  
      | **Result:** The system displays the logo panel. |
| 3    | Press Enter.  
      | **Result:** The system displays the IMS Console Facility Sign On Panel. See Figure 13 on page 131. |
| 4    | At the IMS Console Facility Sign On Panel, type your userid, password, group, and account information, as required. |
| 5    | Press Enter.  
      | **Result:** The system displays the IMS Console Selection pop-up. See Figure 14 on page 133. |
| 6    | At the IMS Console Selection pop-up, select an IMS console that you want to monitor. |
| 7    | Press Enter.  
      | **Result:** The system displays the I/CF console. See Figure 15 on page 134. |
Logon Methods

Indirect logon

Use the following procedure to indirectly log on to I/CF.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log on to IBM Tivoli OMEGAMON II for IMS as usual.</td>
</tr>
</tbody>
</table>
| 2    | When the logo panel appears, press Enter.  
**Result:** The system displays the CUA Sign On Panel. See Figure 12 on page 130. |
| 3    | Press PF11.  
**Result:** The system displays the IMS Console Facility Sign On Panel. See Figure 13 on page 131. |
| 4    | At the IMS Console Facility Sign On Panel, type your userid, password, group, and account information, as required. |
| 5    | Press Enter.  
**Result:** The system displays the IMS Console Selection pop-up. See Figure 14 on page 133. |
| 6    | At the IMS Console Selection pop-up, select an IMS console that you want to monitor. |
| 7    | Press Enter.  
**Result:** The system displays the I/CF console. See Figure 15 on page 134. |
Integrated logon

If you want to access an I/CF console while in an IBM Tivoli OMEGAMON II for IMS session, use the integrated logon procedure.

To use the integrated logon procedure, the system must meet the following conditions:

- You must have defined the I/CF console as a Master Console using the ICFCONSL command.
- You must have defined the I/CF console as a viewable console using the ICFCONSL command.
- The IMSID on the ICFCONSL command must match the IMSID of the current IBM Tivoli OMEGAMON II for IMS CUA session.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Log on to IBM Tivoli OMEGAMON II for IMS as usual.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>When the logo panel appears, press Enter.</td>
</tr>
<tr>
<td></td>
<td><strong>Result:</strong> The system displays the CUA Sign On Panel. See Figure 12 on page 130.</td>
</tr>
<tr>
<td>3</td>
<td>In the appropriate fields, type your userid, password, group, and account information, as required.</td>
</tr>
<tr>
<td>4</td>
<td>Press Enter.</td>
</tr>
<tr>
<td></td>
<td><strong>Result:</strong> The system displays the System Overview panel.</td>
</tr>
<tr>
<td>5</td>
<td>At the System Overview panel, press PF6.</td>
</tr>
<tr>
<td></td>
<td><strong>Result:</strong> The system displays the I/CF console. See Figure 15 on page 134.</td>
</tr>
<tr>
<td></td>
<td>You can use the PF6 function key from any OMEGAMON II panel to access I/CF.</td>
</tr>
</tbody>
</table>
Overview

There are a number of tools available to you for navigation purposes. For example:

- 4-way scrolling
- IMS, VTAM, and MVS command entry
- Multi-directional FIND
- REPEAT-FIND facility

This unit explains each of these navigational features. This unit also explains remote transfer capabilities and viewing other I/CF consoles.

4-way scrolling

You can scroll in the I/CF console display area left, right, up, or down using your scrolling PFKeys.

You can scroll to a specific place on the display area any of the following ways:

<table>
<thead>
<tr>
<th>You can ...</th>
<th>Press ...</th>
<th>The system scrolls ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>place the cursor in the display area where you</td>
<td>one of the scrolling</td>
<td>to the position you specified with the</td>
</tr>
<tr>
<td>want to scroll.</td>
<td>PFKeys.</td>
<td>cursor.</td>
</tr>
<tr>
<td>enter a numeric value on the Command line.</td>
<td>one of the scrolling</td>
<td>the number of positions you specified.</td>
</tr>
<tr>
<td></td>
<td>PFKeys.</td>
<td></td>
</tr>
<tr>
<td>type <strong>MAX</strong> or <strong>M</strong> on the Command line.</td>
<td>one of the scrolling</td>
<td>to the maximum row or column.</td>
</tr>
<tr>
<td></td>
<td>PFKeys.</td>
<td></td>
</tr>
</tbody>
</table>
Using the multi-directional FIND facility

You can search for specific text strings by typing FIND on the command line. The syntax for this command is as follows:

\[ \text{FIND text\_string FIRST|LAST|PREV|NEXT} \]

where

**text\_string** Any text string, with or without quotes. The text string cannot be longer than a console line. A string with imbedded blanks requires single or double quotes.

**FIRST** I/CF starts the scan at the first available console line and scans forward through the console lines until the system finds the text or it reaches the last console line.

**LAST** I/CF starts the scan at the last available console line and scans backward through the console lines until the system finds the text or it reaches the first console line.

**PREV** I/CF starts the scan at the console line prior to the top line in the current console display area and scans backward through the console lines until the system finds the text or it reaches the first console line.

**NEXT** I/CF starts the scan at the console line after the top line in the current console display area and scans forward through the console lines until the system finds the text or it reaches the last console line.

<table>
<thead>
<tr>
<th>IF the system ...</th>
<th>THEN the system displays ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>finds the specified text</td>
<td><strong>CHARS xxxxxxxx FOUND</strong></td>
</tr>
<tr>
<td>does not find the specified text</td>
<td>**TOP</td>
</tr>
</tbody>
</table>
Using the REPEAT-FIND facility

The REPEAT-FIND facility allows you to re-execute the last FIND command you entered. The messages described in “Using the multi-directional FIND facility” on page 67 also apply to the REPEAT-FIND facility.

If you press PF5, the REPEAT-FIND function key, the system responds as follows:

| IF you specified ... | THEN the system assumes the REPEAT-FIND modifier to be ...
|----------------------|----------------------------------------------------------
| FIRST as a modifier   | NEXT                                                      |
| LAST as a modifier    | PREV                                                      |

If you continue to press PF5 (REPEAT-FIND), the system responds as follows:

| IF you press the REPEAT-FIND PFKey after reaching the ... | THEN the scan wraps the console lines and restarts at the ...
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>first console line</td>
<td>last console line</td>
</tr>
<tr>
<td>last console line</td>
<td>first console line</td>
</tr>
</tbody>
</table>

Remote transfer

Transplexing is only available when you use the integrated I/CF Console logon method with OMEGAVIEW Version 120 and above. See “Integrated logon” on page 65 for more information.
Viewing other consoles

To view other I/CF consoles that you have defined, use the following procedure:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>On the I/CF Console panel, place your cursor on the promptable title line.</td>
</tr>
</tbody>
</table>
| 2    | Press PF4.  
**Result:** The IMS Console Selection panel lists all the ICF consoles defined. |
| 3    | Select another I/CF console. |
| 4    | Press Enter.  
**Result:** The system displays the I/CF console for the console you selected. |
Changing the Way the System Displays Information

Overview

You can specify how the system displays information on the screen using the following I/CF features:

- Date format on the Date/Time Stamp
- Color highlighting
- Message suppression

Changing the date format on the date/time stamp

At one minute intervals, I/CF displays a date and time stamp on the console and adds an entry into the audit log. At midnight, I/CF records a change-of-day timestamp into the audit log.

See “Messages” on page 121 for the format of the one minute date/time stamp and the change-of-day date/time stamp.

**Note:** You cannot modify individual console messages to contain a date or a time stamp.

The format of the date/time stamp is as follows:

<table>
<thead>
<tr>
<th>Option</th>
<th>Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MM/DD/YY (Default)</td>
<td>10/29/96</td>
</tr>
<tr>
<td>2</td>
<td>YY/MM/DD</td>
<td>96/10/29</td>
</tr>
<tr>
<td>3</td>
<td>MMM DD,YYYY</td>
<td>OCT 29,1996</td>
</tr>
<tr>
<td>4</td>
<td>MMMMMMMMM MD,YYYY</td>
<td>OCTOBER 29,1996</td>
</tr>
<tr>
<td>5</td>
<td>DD.MM.YY</td>
<td>29.10.96</td>
</tr>
<tr>
<td>6</td>
<td>YYYY/DDD</td>
<td>1996/303</td>
</tr>
</tbody>
</table>
Changing color highlighting

I/CF uses 4 basic colors for lines in the console display area.

Use the ICFTRAP command to change the default color scheme. See “ICFTRAP command” on page 110 for more information.

The following chart illustrates the default color scheme:

Table 7. Default Color Scheme

<table>
<thead>
<tr>
<th>Color</th>
<th>Message Type</th>
</tr>
</thead>
</table>
| Red   | Red indicates one of two types of messages:  
|       | ■ Exception messages from IBM Tivoli OMEGAMON II for IMS  
|       | ■ I/CF error messages  
| Blue  | IMS, MVS, and VTAM messages  
| Green | Green indicates one of two types of messages:  
|       | ■ Date/time stamp messages  
|       | ■ I/CF informational and warning messages  
| White | Command Entry Audit messages |
Implementing message suppression

You can specify any contiguous text to identify a console line you want to suppress from the display. Use the ICFTRAP command to define a message suppression trap. See “ICFTRAP command” on page 110 for more information.

Note: Message suppression is not available for the I/CF console logging facilities.

<table>
<thead>
<tr>
<th>IF you ...</th>
<th>THEN the console ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>suppress a message</td>
<td>does not display any messages with the text you specified from this point forward.</td>
</tr>
<tr>
<td></td>
<td>Note: Messages with the specified text received prior to the entry of the message suppression command continue to display on the I/CF console.</td>
</tr>
<tr>
<td>remove message suppression</td>
<td>begins to display messages with the text you specified from this point forward.</td>
</tr>
<tr>
<td></td>
<td>Note: Messages you suppressed prior to the entry of this command continue to be suppressed.</td>
</tr>
</tbody>
</table>
Entering Commands

Overview
You can enter I/CF, IMS, VTAM, and MVS commands from the I/CF console. This unit tells you how to enter each of these types of commands.

Entering I/CF commands
You can type the following I/CF commands directly on the console Command line with no preceding characters:
- AFOPER
- CLOSE
- MSG
- OPEN
- RESTART
- RECYCLE
- SWITCH

For more information about these commands, see “Command Reference” on page 99.

Entering IMS commands
Begin each IMS command with a forward slash (/) on:
- the I/CF console Command line, and
- the IMS Command Entry pull-down.

Entering VTAM commands
On the I/CF console Command line, begin each VTAM command with a period (.).
For example,

```
.D NET,ID=R112CUA,E
```

Note: This is only available if you defined a VTAM command entry APPLID. See “Defining an Interface for Entering VTAM Commands” on page 42 for more information.
Entering Commands

Entering MVS commands

On the I/CF console Command line, begin each MVS command with a dash (-).

For example,

- D R,L

**Note:** You must specify the SUBSYSCONSOLE subparameter on the ICFCONSL command for the system to display responses to MVS commands.

Verifying commands

When you enter a command on the I/CF console, you can view messages indicating whether or not the command was issued. Whenever I/CF actually issues any MVS, VTAM, or IMS command, a message is passed to the automation interface. The message ID is ICFCQ212 and appears as a WTO in AF/Operator.

When the I/CF VTAM connection is successfully established, you will see an ICFVR003 message.

When the I/CF connection is terminated, you will see an ICFVR005 message.
Logging Data

Overview

I/CF logs all messages that appear on the I/CF console. Message suppression does not suppress messages from the I/CF console log.

This unit describes sysout and dataset logging, user message logging, and exception logging.

Specifying sysout logging

Use the ICFCONSL command to specify JES sysout logging.

When you specify sysout logging, you supply the following information:

- Sysout class
- Destination id
- Destination userid

I/CF closes and reallocates the sysout log at midnight. At this time, you can use any mechanism to remove the dataset from the JES spool. Closing the log at midnight avoids the risk of running out of JES spool space due to an IMS subsystem that is available for extended periods of time.

Specifying dataset logging

You specify the datasets for logging using the LOGDSNn subparameter of the ICFCONSL command.

There is no pre-set time for closing dataset logs. When a log dataset fills up, I/CF switches to the second specified dataset. You can control the switch interval by controlling the size of the log dataset. When a switch occurs, I/CF submits a job to the JES internal reader for execution.
### User message logging

You can enter a message into the I/CF console. Anyone who is logged on to the I/CF console will see the message you entered. Use this procedure to enter a message:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | On the Command line of the I/CF console, type `MSG any text`  
*Note:* You do not have to type quotes around the message. The message is not case sensitive. |
| 2    | Press Enter.  
**Result:** I/CF displays the message on the I/CF console and writes the message to the console log in upper-case letters. |

### Exception logging

I/CF displays exception messages on the I/CF console and writes them to the I/CF console log.

IBM Tivoli OMEGAMON II for IMS base exception processing on an individual user profile. Therefore, you need to specify which userid will provide exception messages.

Use the EXCEPTIONUSERID subparameter to the ICFCONSL command to specify the userid. See “ICFCONSL command” on page 103 for more information. This userid must be logged on in order to establish the exception profile and start sending exception messages to I/CF.

IBM recommends that the userid match the one you use for the OMEGAVIEW connection to IBM Tivoli OMEGAMON II for IMS.
Switching the Logs

Overview
This unit tells you how to switch logs and what happens based on the type of log you are using.

Switching logs
You can force a log to switch by issuing the SWITCH command directly into the I/CF console or as an MVS modify command.

Results
How I/CF responds to the SWITCH command depends on whether you are using sysout or dataset logging, as follows:

<table>
<thead>
<tr>
<th>IF you specified ...</th>
<th>THEN I/CF ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>sysout logging</td>
<td>closes the current sysout log and re-allocates it.</td>
</tr>
<tr>
<td>dataset logging</td>
<td>closes the current dataset log, opens the alternate dataset log, and submits the appropriate archive job.</td>
</tr>
</tbody>
</table>
Switching the Logs
Chapter overview

This chapter tells you how to set up logon security for OMEGAMON II and how to implement security for I/CF.

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Set Up Logon Security

Overview
You must choose security for user logon to the OMEGAMON II CUA system. The types of security available are:

- Network Access Manager (NAM) for internal security
- System Authorization Facility (SAF) for external security
- RACF external security
- CA-ACF2 external security
- CA-TOP SECRET external security
- User-Coded Exit

*Note:* To bypass logon security, skip this section and go to “Command Entry Security” on page 87.

Using Network Access Manager (NAM)
The OMEGAMON II system provides an internal security system, NAM, which uses a VSAM dataset to store the userids and passwords of the users you authorize to access your CUA system.

To use NAM, follow these steps:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If you did not use CICAT, you must copy KI2DFNAM from the target library and then modify it.</td>
</tr>
<tr>
<td>2</td>
<td>Create the NAM VSAM dataset. We provide a sample JCL in rhilev.midlev.RKANPAR(KI2DFNAM). Follow the instructions in KI2DFNAM to modify the member.</td>
</tr>
</tbody>
</table>
| 3    | Set the parameters in rhilev.midlev.RKANPAR(KI2INNAM) as follows:  

```
DEFAULT DSNAME(-RVHILEV-.NAM)  
EXIT=xxxxxxxx  
NORACF  
NODB
```

where `xxxxxxxx` is the user-coded exit module name the CUA uses for resource access validation. |
Create the NAM SET commands to define the userids and passwords of users you authorize for your OMEGAMON II CUA system. You can find a sample of these commands in rhilev.RKANCMD(KI2CMNAM).

You can execute the NAM SET commands using one of three methods:

1. After starting the CUA system, issue the commands through the MVS console as modify commands to the CUA system. The format is:

   ```
   F jobname,NAM SET userid PASSWORD=password
   ```

   where `jobname` is the name of the CUA interface job or started task.

2. After starting the CUA system and editing a member in your rhilev.RKANCMD dataset, execute all commands in that member through the MVS console as a modify command to the CUA system. The format is:

   ```
   F jobname,member
   ```

   where `jobname` is the name of the CUA interface job or started task, and `member` is the member name of the member you edited in your rhilev.RKANCMD dataset.

3. After editing a member in your rhilev.RKANCMD dataset, add that member name as another command to the KI2START member in your rhilev.RKANCMD dataset. You will only use this method under the following conditions:

   - You are initializing the NAM dataset. Normally, this only occurs the first time you start your CUA system.
   - You need to add more users to the database.
Using SAF

The System Authorization Facility (SAF) provides an installation with centralized control over system security processing through a system service called the MVS router. The MVS router provides a focal point for all products that provide resource management. The resource management components and subsystems call the MVS router as part of security decision-making functions in their processing, such as access control checking and authorization-related checking. These functions are called control points. SAF supports the use of common control points across products and across systems.

SAF is the preferred security interface for CT/Engine and can be used by installations that have CA-ACF2 or CA-TOP SECRET, as well as with RACF, without the need to have any NAM exits installed. See your security product documentation for information regarding the use of SAF.

To use SAF as the security system for one or more control points, follow these steps:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure all libraries in the RKANMODL concatenation are APF-authorized. IBM’s <em>Initialization and Tuning Reference</em> has information about APF authorization.</td>
</tr>
</tbody>
</table>
| 2    | For each control point that you want to use SAF, make the following changes in member rhilev.midlev.RKANPAR(KLVINNAM).  
   a. Change **DB** to **NODB**.  
   b. Add **SAF** to the control point definition.  
   If you have not added any control points, the member will look like this when you finish:  
   ```  
   DEFAULT DSNAMERhilev.NAM) NORACF NODB SAF  
   ``` |
| 3    | You may need to increase the value assigned to the RESERVE parameter of member rhilev.midlev.RKANPAR(KLVSYFIN). |
| 4    | Restart CT/Engine to activate the change. |
Using RACF

To use RACF external security:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Make sure you have Control access to the VSAM files that the CUA system defines for use.</td>
</tr>
</tbody>
</table>
| 2    | Set the parameters in the `rhilev.midlev.RKANPAR(KI2INNAM)` dataset, as follows:  

```
DEFAULT
SAF
NODB
```

Using CA-ACF2

To use CA-ACF2 external security:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | Assemble and link the IBM-supplied CA-ACF2 security validation exit module KLVA2NEV.  
You will find the JCL to assemble and link KLVA2NEV in your `rhilev.RKANSAM(KI2ASM)` dataset. You must link KLVA2NEV into the `rhilev.RKANMODL` dataset by setting AC=0, AMODE=31, and RMODE=24.  
Follow the instructions in the sample JCL to assemble and link KLVA2NEV. |
| 2    | Set the parameters in the `rhilev.midlev.RKANPAR(KI2INNAM)` dataset, as follows.  

```
DEFAULT
EXIT=KLVA2NEV
NORACF
NODB
```
| 3    | Define the CUA system as a multi-user address space to CA-ACF2.  
From the TSO Ready prompt:  
1. Type `ACF` and press Enter.  
2. At the ACF prompt, type `SET LID` and press Enter.  
3. At the LID prompt, type `CH jobname MUSASS` and press Enter, where:  
   `jobname`  
is the name of the OMEGAMON II address space.  
4. At the LID prompt, type `END` and press Enter. |
**Using CA-TOP SECRET**

To use CA-TOP SECRET external security:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | Assemble and link the IBM-supplied CA-TOP SECRET security validation exit module KLVTSNEV.  
You will find the JCL to assemble and link KLVTSNEV in your *rhilev.midlev.RKANSAM(KI2ASM)* dataset. You must link KLVTSNEV into the *rhilev.RKANMODL* dataset by setting AC=1, AMODE=31, and RMODE=24.  
Follow the instructions in the sample JCL to assemble and link KLVTSNEV. |
| 2    | Set the parameters in the *rhilev.midlev.RKANPAR(KI2INNAM)* dataset as follows:  
**DEFAULT**  
**EXIT=KLVTSNEV**  
**NORACF**  
**NODB** |
| 3    | Define the CUA address space as a started task in the STC record and relate the CUA address space to a *Master Facility Accessor ID*. For example:  
**TSS ADD(STC) PROC(jobname) ACID(master facility acid)**  
where *jobname* is the name of the OMEGAMON II started task. |
| 4    | Define *jobname* as a facility to CA-TOP SECRET in the *Facility Matrix table*.  
To use the same Facility name across multiple CUA started task names, the Facility name must match at least one of the started task names in each address space. See the example at the end of this procedure. |
Example:
The following example shows **FACILITY** statements from a production installation using the CA-TOP SECRET security system. Some statements may not be relevant to your CUA system, so you may need to modify the statements to fit your standards and configuration.

```
FACILITY(USER3=NAME=jobname)
FACILITY(jobname=MODE=FAIL,ACTIVE,SHRPRF)
FACILITY(jobname=PGM=KLV,NOASUBM,NOABEND,NOXDEF)
FACILITY(jobname=ID=3, Multiuser, RES, LUMSG, STMSG, WARNPW, SIGN(M))
FACILITY(jobname=NOINSTDATA, NORNDPW, AUTHINIT, NOPROMPT, NOAUDIT, NOMRO)
FACILITY(jobname=NOTSOC, LOG(INIT, SMF, MSG, SEC9))
```

**Caution**
Specify the sign parameter on the **FACILITY** statement as SIGN(M). Otherwise, CA-TOP SECRET produces a message stating that the system has revoked user access.

Also, verify that you set **MODE=FAIL**.
Using a user-coded exit

To use user-coded exit security:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | Modify the IBM-supplied sample security validation exit routine to meet your specific security needs.  
This validation exit is in *rhilev.midlev.RKANSAM(KI2ICFX1)*.  
If you use this exit as is, you allow users to:  
- Log onto I/CF using any userid with a password that matches the userid  
- Use all display commands  
Modify the sample user validation routines to validate userids for access to all commands except display. |
| 2    | Assemble and link the IBM-supplied user-coded security validation exit module KI2ICFX1.  
You will find the JCL to assemble and link KI2ICFX1 in your *rhilev.midlev.RKANSAM(KI2ASM)* dataset. You must link KI2ICFX1 into the *rhilev.midlev.RKANMODL* dataset by setting AC=1, AMODE=31, and RMODE=24.  
Follow the instructions in the sample JCL to assemble and link KI2ICFX1. |
| 3    | Set the parameters in the *rhilev.midlev.RKANPAR(KI2INNAM)* dataset, as follows.  
\[
\begin{align*}
\text{DEFAULT} \\
\text{EXIT}=\text{KI2ICFX1} \\
\text{NORACF} \\
\text{NODB}
\end{align*}
\]
Command Entry Security

Overview

I/CF provides you with the ability to secure specific IMS, MVS, and VTAM commands to specific users and user groups. I/CF does this by converting the commands you enter through an I/CF console to a resource name. It then passes the resource name to an external security system or to the IBM-supplied user-coded security validation exit.

This unit provides you with an outline of how to secure resources to either RACF, CA-ACF2 or CA-TOP SECRET.

Note: This is not a complete or specific task list.

For more information
Consult your security administrator for product-specific requirements.

Prerequisite

To use any of the available external security system interfaces, you must define a Command Resource Class to the IBM Tivoli OMEGAMON II for IMS CUA address space. See “Defining a Command Resource Class” on page 44 for more information.
How I/CF converts commands to resources

I/CF takes the command you enter and converts it to a resource name as follows:

**high-level node**

The internal I/CF command recognition character converts to the high-level node. For example:

<table>
<thead>
<tr>
<th>IF the first character of the command is ...</th>
<th>THEN I/CF converts it to ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dash (-)</td>
<td>MVS</td>
</tr>
<tr>
<td>Slash (/)</td>
<td>IMS</td>
</tr>
<tr>
<td>Period (.)</td>
<td>VTAM</td>
</tr>
</tbody>
</table>

**second node**  The system name

**third node**  The command

**fourth node**  VTAM VARY command only: The element name (the ID= subparameter)

The following table shows examples of commands and the I/CF converted resource name.

**Table 8. Command Conversion Examples**

<table>
<thead>
<tr>
<th>Command</th>
<th>Resource Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>-R 104,/ERE OVERRIDE.</td>
<td>MVS.SP11.R</td>
</tr>
<tr>
<td>-104/ERE OVERRIDE.</td>
<td>MVS.SP11.R</td>
</tr>
<tr>
<td>-D R,L</td>
<td>MVS.SP11.D</td>
</tr>
<tr>
<td>-P TDOIS25</td>
<td>MVS.SP11.P</td>
</tr>
<tr>
<td>-F TDOIS25,STOP</td>
<td>MVS.SP11.F</td>
</tr>
<tr>
<td>-V NET,INACT,ID=R11I225M,F</td>
<td>VTAM.SP11.V.R11I225M</td>
</tr>
<tr>
<td>-V 1C1,OFFLINE</td>
<td>MVS.SP11.V</td>
</tr>
<tr>
<td>/STA DB D121PART</td>
<td>IMS.I51A.STA</td>
</tr>
<tr>
<td>/CHE DUMPQ</td>
<td>IMS.I51A.CHE</td>
</tr>
<tr>
<td>.D NET, ID=R11I225M,E</td>
<td>VTAM.SP11.D</td>
</tr>
<tr>
<td>.V NET,INACT,ID=R11I225M,F</td>
<td>VTAM.SP11.V.R11I225M</td>
</tr>
</tbody>
</table>
Securing I/CF commands

You can also secure the following I/CF commands:

- AFOPER
- CLOSE
- MSG
- OPEN
- RECYCLE
- RESTART
- SWITCH

These commands do not require a command recognition character.

**Note:** When you use these commands as parameters on the ICFCMD, the system does not secure them.

The resulting resource name uses the following syntax:

```
high-level node
  ICF
  second node  the IMSID
  third node   the I/CF command
```

The following table shows I/CF command examples and their converted resource names:

<table>
<thead>
<tr>
<th>Command</th>
<th>Resource Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECYCLE</td>
<td>ICF:I51A.RECYCLE</td>
</tr>
<tr>
<td>RESTART</td>
<td>ICF:I51A.RESTART</td>
</tr>
<tr>
<td>SWITCH</td>
<td>ICF:I51A.SWITCH</td>
</tr>
<tr>
<td>MSG</td>
<td>ICF:I51A.MSG</td>
</tr>
<tr>
<td>AFOPER</td>
<td>ICF:I51A.AFOPER</td>
</tr>
</tbody>
</table>
Changing the resource access list

If you change the resource access list by defining additional resources or modifying access to defined resources, do one of the following:

- Issue the following MVS modify command to the IBM Tivoli OMEGAMON II for IMS CUA address space:
  
  `F jobname,NAM RACLIST`

  where `jobname` is the MVS jobname or started task name of the IBM Tivoli OMEGAMON II for IMS CUA address space.

- Stop/re-start the IBM Tivoli OMEGAMON II for IMS CUA address space.

Defining RACF resources

Use the following procedure to define RACF resources. Contact your RACF administrator if you need assistance. Also see the *RACF Macros and Interfaces* manual.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | Define a new Resource Class to RACF by using the ICHERCDE macro in the ICHRRCDE Class Descriptor Table.  
  *Note:* The ICHERCDE macro sets RACLIST=DISALLOWED as a default. If you code RACLIST=ALLOWED, use the ICHRFRTB macro to create a router table entry for the class. |
| 2    | If you define a new resource class in the RACF Class Descriptor Table, IPL your system with a CLPA option. |
| 3    | Issue the SETROPTS command to activate your new resource class. |
| 4    | Issue RACF RDEF commands to define the resources. |
| 5    | Issue RACF PERMIT commands to authorize user access to the resources you defined. |
Defining CA-ACF2 resources

Use the following procedure to define CA-ACF2 resources.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Define R-APL in ACF2 and associate it with ACF2 resource names.</td>
</tr>
<tr>
<td>2</td>
<td>Determine the access rights for each resource using a resource rule in ACF2. Use $KEY statements to specify the resource and UID statements to allow user access to the resource.</td>
</tr>
</tbody>
</table>

Defining CA-TOP SECRET resources (Version 4.1 and earlier)

Use the following procedure to define resources for CA-TOP SECRET Version 4.1 and earlier.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In each user's TOP SECRET access ID, specify access to the FACILITY named task, where task is the CUA started task name.</td>
</tr>
<tr>
<td>2</td>
<td>Allow user's access to each resource through the Limited Command Facility (LCF) under the FACILITY using TSS ADD statements.</td>
</tr>
</tbody>
</table>

Defining CA-TOP SECRET resources (Version 4.2 and later)

Use the following procedure to define resources for CA-TOP SECRET Version 4.2 and later.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Review the discussion of the Resource Definition Table (RDT) in the CA-TOP SECRET Command Function Guide.</td>
</tr>
<tr>
<td>2</td>
<td>Define an RDT class using the TSS ADD statement.</td>
</tr>
<tr>
<td>3</td>
<td>Set violation threshold (VTHRESH) to NOTIFY.</td>
</tr>
<tr>
<td>4</td>
<td>Specify user access to the resources using TSS ADD statements.</td>
</tr>
</tbody>
</table>
Specifying a user exit

Use the following procedure to specify a user exit.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | Modify the IBM-supplied sample security validation exit routine to meet your specific security needs. This validation exit is in `rhilev.midlev.RKANSAM(KI2ICFX1)`. If you use this exit as is, you allow users to:  
  - Log onto I/CF using any userid with a password that matches the userid  
  - Use all display commands  
  Modify the sample user validation routines to validate userids for access to all commands except display. |
| 2    | Assemble and link the IBM-supplied user-coded security validation exit module KI2ICFX1. The JCL to assemble and link KI2ICFX1 is in `rhilev.midlev.RKANSAM(KI2ASM)`. Follow the instructions in the sample JCL. Link the module into the `rhilev.midlev.RKANMODL` dataset setting AC=1, AMODE=31, and RMODE=24. |
| 3    | Set the parameters in the `rhilev.midlev.RKANPAR(KI2INNAM)` dataset as follows:  
  - `DEFAULT`  
  - `EXIT=KI2ICFX1`  
  - `NORACF`  
  - `NODB` |
Command Entry Audit

Overview

This unit describes the Command Entry Audit.

How the Command Entry Audit works

Whenever an I/CF user issues a command, the following happens:

- The command displays on the I/CF Master Console with the date, time, and userid of the person who issued the command.
- The system highlights the command on the display console.
- I/CF writes the command to the sysout or dataset log.
Command Entry Audit
Chapter overview

This chapter tells you about I/CF’s automated and manual console recovery facilities.

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  Overview ................................................................................. 96
  Automatic recovery .............................................................. 96

Manual Console Recovery Facilities ........................................... 97
  Overview ................................................................................. 97
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ICFX Exception ........................................................................... 98
  Overview ................................................................................. 98
  ICFX exception description .................................................. 98
  Turning ICFX on or off .......................................................... 98
  Exception control panel for IMS status ................................. 98
Automatic Console Recovery Facilities

Overview
This unit describes I/CF’s automatic console recovery facilities.

Automatic recovery
If I/CF disconnects from the IMS subsystem, I/CF attempts to connect to IMS as often as the interval you have defined with the RETRY INTERVAL command. See “ICFCONS leave command” on page 103.

<table>
<thead>
<tr>
<th>IF the attempt is ...</th>
<th>THEN ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>successful</td>
<td>I/CF accepts a connection request from IMS.</td>
</tr>
<tr>
<td>unsuccessful</td>
<td>I/CF automatically attempts to re-connect to IMS. The system displays these attempts in the RLVLOG, but not on the I/CF console.</td>
</tr>
</tbody>
</table>
Manual Console Recovery Facilities

Overview
This unit tells you about the manual RECYCLE and RESTART facilities. It also tells you how to recycle or restart the connection to IMS manually from either the I/CF console or the MVS System Console.

The RECYCLE facility
Use RECYCLE if the ACB is stopped. The RECYCLE facility allows you to close the VTAM ACB and terminate the active session with IMS. Once stopped, I/CF automatically reopens the VTAM ACB and attempts to reestablish the VTAM session.

The RESTART facility
Use RESTART if the ICF console is stopped. The RESTART facility allows you to terminate a VTAM session with IMS. Once stopped, I/CF attempts to reestablish the VTAM session.

Using the I/CF console
You can manually reconnect I/CF to the IMS subsystem from the I/CF console where you are logged on.

Note: You cannot recycle or restart an I/CF console with an ACTIVE status.

On the I/CF console Command line, issue either a RECYCLE or a RESTART command.

Using the MVS Master Console
You can manually reconnect I/CF to the IMS subsystem from the MVS Master Console. On the MVS Master Console command line, issue the ICFCMD command with the appropriate subparameters. See “ICFCMD - MVS Console Command” on page 100 for more information.

Commands that you enter from the MVS Master Console ignore the status of the I/CF console and force either the restart or recycle processing to occur.
ICFX Exception

Overview

ICFX is a new exception for IBM Tivoli OMEGAMON II for IMS. This unit describes ICFX.

ICFX exception description

ICFX notifies you that I/CF is not connected to the monitored IMS. The exception only trips when you have defined an I/CF console as an I/CF Master Console for the monitored IMS ID.

Turning ICFX on or off

You can turn ICFX on or off from the IBM Tivoli OMEGAMON II for IMS Exceptions panel under the Options pull-down. Default: ON

Exception control panel for IMS status

The ICFX exception is on the IMS Status - Alerts Exceptions pop-up panel. You access this pop-up panel by selecting Customize Exceptions from the Options pull-down and then selecting IMS Status - Alerts from the list of exception groups.
Chapter overview

This chapter defines the commands associated with I/CF.

Chapter contents

<table>
<thead>
<tr>
<th>Command</th>
<th>Page</th>
</tr>
</thead>
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<td>100</td>
</tr>
<tr>
<td>IFCONSL command</td>
<td>103</td>
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<tr>
<td>ICFTRAP command</td>
<td>110</td>
</tr>
<tr>
<td>MSG Command</td>
<td>113</td>
</tr>
<tr>
<td>AFOPER Command</td>
<td>114</td>
</tr>
<tr>
<td>RECYCLE Command</td>
<td>115</td>
</tr>
<tr>
<td>RESTART Command</td>
<td>116</td>
</tr>
<tr>
<td>OPEN Command</td>
<td>117</td>
</tr>
<tr>
<td>CLOSE Command</td>
<td>118</td>
</tr>
<tr>
<td>SWITCH Command</td>
<td>119</td>
</tr>
</tbody>
</table>
ICFCMD - MVS Console Command

Overview

You issue the ICFCMD command as a modify command from the MVS Console. The system then sends a message to the RLVLOG and to the MVS System Console.

This unit describes the syntax and subparameters of the ICFCMD command. The ICFCMD interface to ICF is an unsecured interface; anyone with MVS console access may issue these commands.

Command syntax

The following is the syntax for the ICFCMD command.

```
ICFCMD -
   ACB(xxxxxxxx) -
   CLOSE -
   OPEN -
   RECYCLE -
   RESTART
   SWITCH -
```

Subparameter descriptions

The following chart describes each of the subparameters for the ICFCMD command.

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Length</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACB</td>
<td>8</td>
<td>None</td>
<td>The VTAM ACB name or the DBCTL IMSID you defined for the I/CF console. See “Defining a VTAM APPLID” on page 39 for more information. Note: This subparameter matches the ACB subparameter on the ICFCONSL command. If this is a DBCTL subsystem, the value of this subparameter is the IMSID you specified on the ICFCONSL command.</td>
</tr>
</tbody>
</table>
The CLOSE subparameter inhibits I/CF or IMS from reestablishing the VTAM connection. The ICFX exception notifies you that I/CF is not connected to IMS. The ICFX exception remains tripped as long as there is no VTAM connection between I/CF and IMS.

The OPEN command is required to allow IMS and I/CF to connect to one another after a CLOSE command.

Closes the VTAM ACB and terminates the active session with IMS. See “Manual Console Recovery Facilities” on page 97 for more information.

Terminates a VTAM session with IMS. See “Manual Console Recovery Facilities” on page 97 for more information.

Forces a log to switch. How I/CF responds to this command depends on whether you are using sysout or dataset logging. See “Switching the Logs” on page 77 for more information.
Using the ICFCMD command to switch logs

The following example causes the logs to switch.

F jobname,ICFCMD SWITCH ACB(I61C)

where:

jobname

is the IBM Tivoli OMEGAMON II for IMS MVS started task name or MVS jobname.

Using the ICFCMD command to recycle a subsystem

The following example causes the I/CF console R11I225M to recycle.

F jobname,ICFCMD ACB(R11I225M) RECYCLE

where:

jobname

is the IBM Tivoli OMEGAMON II for IMS MVS started task name or MVS jobname.
ICFCONSL command

Overview
This unit describes the ICFCONSL command, which defines an I/CF console and its characteristics. You can specify the ICFCONSL command in your KI2START member, rhilev.midlev.RKANCMD.

Command syntax
The following is the syntax for the ICFCONSL command.

ICFCONSL -
   ACB(xxxxxxxx) -
   AUTO -
   DATEFORMAT(x) -
   DBCTL -
   EXCEPTIONUSERID(xxxxxxxx) -
   IMSAPPL(xxxxxxxx) -
   IMSID(xxxxxxxx) -
   LOG -
   LOGARCH1(xxxxxxxx) -
   LOGARCH2(xxxxxxxx) -
   LOGCLASS(x) -
   LOGDEST(xxxxxxxx) -
   LOGDESTU(xxxxxxxx) -
   LOGDSN1(xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx) -
   LOGDSN2(xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx) -
   MASTER -
   REMOTE -
   REMOTEACBNAME(xxxxxxxx) -
   RETRYINTERVAL(nn:nn:nn) -
   SESSNAME(xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx) -
   SUBSYSCONSOLE -
   VIEW -
   VIEWSIZE(xxxxxx) -
**Subparameter descriptions**

The following chart describes each of the subparameters for the ICFCONSL command:

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Maximum Length of Parameter Value</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACB</td>
<td>8</td>
<td>None</td>
<td>The VTAM ACB name you defined for the IMS Master Console. See “Defining a VTAM APPLID” on page 39 for more information. <strong>Note:</strong> A DBCTL subsystem does not require this subparameter. This field appears as <strong>ACBID</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>AUTO</td>
<td>None</td>
<td>Off</td>
<td>Sends IMS Master Terminal, I/CF, and exception messages to OMEGACENTER Gateway for MVS. Requires the OMEGACENTER Gateway for MVS automation interface exit. See “Providing an Automation Exit” on page 51 for more information. This field appears as <strong>A</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>DATEFORMAT</td>
<td>1</td>
<td>1</td>
<td>Specifies the date format for the date stamp. The following shows the code for each format: 1 MM/DD/YY 2 YY/MM/DD 3 MMM DD, YYYY 4 MMMMMMMM DD, YYYY 5 DD.MM,YY 6 YYYY/DDD This field appears as <strong>FMT</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
</tbody>
</table>
ICFCONSL command

Note: If you have not defined the IMS ID as a DBCTL subsystem, I/CF issues an error message on the RLVLOG dataset and does not create the I/CF console.

This field appears as **CT**
on the Configure I/CF Console Commands CICAT panel.

Valid codes are:
- **M** - Master
- **D** - DBCTL

---

### Table 11. ICFCONSL Command Subparameter Descriptions

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Maximum Length of Parameter Value</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBCTL</td>
<td>None</td>
<td>Off</td>
<td>Indicates that this is an IMS Master Console for a DBCTL subsystem.</td>
</tr>
<tr>
<td>EXCEPTIONUSERID</td>
<td>8</td>
<td>None</td>
<td>The OMEGAMON II for IMS userid that I/CF uses to log exception messages from the IBM Tivoli OMEGAMON II Realtime Performance Monitor. IBM recommends that this userid match the OMEGAVIEW userid which connects to IBM Tivoli OMEGAMON II for IMS.</td>
</tr>
<tr>
<td>IMSAPPL</td>
<td>8</td>
<td>None</td>
<td>The VTAM APPLID you defined for the IMS DB/DC subsystem at IMSGEN time.</td>
</tr>
<tr>
<td>IMSID</td>
<td>8</td>
<td>None</td>
<td>The IMSID specified at IMSGEN time.</td>
</tr>
</tbody>
</table>

---

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### Table 11. ICFCONSL Command Subparameter Descriptions

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Maximum Length of Parameter Value</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG</td>
<td>None</td>
<td>Off</td>
<td>Indicates that the system is to log the information from this console. This field appears as <strong>LOG</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>D</strong> = Log via dataset</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>S</strong> = Log via sysout</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>N</strong> = No logging</td>
</tr>
<tr>
<td>LOGARCHn</td>
<td>8</td>
<td>None</td>
<td>Specifies the member name in the <code>rhilev.midleu.RKANPAR</code> dataset that the system submits when a log dataset switch occurs. This field appears as <strong>LOG1</strong> in the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>LOGCLASS</td>
<td>A</td>
<td>None</td>
<td>Specifies the JES sysout class for the system to use when writing the log.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Note</strong>: You must specify the LOG subparameter. I/CF uses LOGCLASS in conjunction with the LOGDEST and LOGDESTU subparameter.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>This field appears as <strong>LOGCLASS</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>LOGDEST</td>
<td>8</td>
<td>None</td>
<td>Specifies the JES sysout destination id. This field appears as <strong>LOGDEST</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>LOGDESTU</td>
<td>8</td>
<td>None</td>
<td>Specifies the JES sysout destination userid. This field appears as <strong>LOGDEST USER</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
</tbody>
</table>
ICFCONSL command

Table 11. ICFCONSL Command Subparameter Descriptions

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Maximum Length of Parameter Value</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGDSNn</td>
<td>44</td>
<td>None</td>
<td>When you specify a LOGDSN1 and LOGDSN2, you can send a complete copy of all the console lines for this console, to a dataset. When the dataset is full, I/CF switches to the other dataset and continues logging. <strong>Note:</strong> You must specify the LOG subparameter to use the LOGDSNn subparameter. This field appears as LOG2 on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>MASTER</td>
<td>None</td>
<td>Off</td>
<td>Indicates that you can enter IMS, MVS, and VTAM commands through this console. This field is an option for the CT field on the Configure I/CF Console Commands CICAT panel. Valid codes are: <strong>M</strong> - Master, <strong>D</strong> - DBCTL</td>
</tr>
<tr>
<td>REMOTE</td>
<td>None</td>
<td>Off</td>
<td>Defines this I/CF console as a remote console to a Master I/CF console. This field appears as <strong>RCON</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>REMOTEACBNAME</td>
<td>8</td>
<td>None</td>
<td>The VTAM ACBNAME you specified on your remote connection VTAM APPLID. See Figure 5 on page 54 for more information. This field appears as <strong>IMS R-ACB</strong> on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
</tbody>
</table>
### Table 11. ICFCONSL Command Subparameter Descriptions

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Maximum Length of Parameter Value</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETRYINTERVAL</td>
<td>6</td>
<td>None</td>
<td>The parameter value is assumed to be seconds. The numeric format is <strong>HH:MM:SS</strong>&lt;br&gt;For example, you can enter:&lt;br&gt;<strong>RETRY INTERVAL(00:00:90)</strong>&lt;br&gt;This can also be entered as:&lt;br&gt;<strong>RETRY INTERVAL(00:01:30)</strong>&lt;br&gt;See page “Automatic recovery” on page 96 for more information.</td>
</tr>
<tr>
<td>SUBSYSConsole</td>
<td>None</td>
<td>Off</td>
<td>Dynamically allocates a subsystem console which allows you to receive responses to your MVS commands on your I/CF console.&lt;br&gt;&lt;br&gt;Note: Check with your MVS system administrator to ensure an adequate number of subsystem consoles are available for this I/CF console.&lt;br&gt;This field appears as <strong>SC</strong>&lt;br&gt;on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
<tr>
<td>VIEW</td>
<td>None</td>
<td>Off</td>
<td>Lets you view this console through I/CF. This field appears as <strong>VW</strong>&lt;br&gt;on the Configure I/CF Console Commands CICAT panel. Valid codes are:&lt;br&gt;<strong>Y</strong> - Yes&lt;br&gt;<strong>N</strong> - No</td>
</tr>
<tr>
<td>VIEWSIZE</td>
<td>6</td>
<td>25,000</td>
<td>The number of lines you can view from the I/CF console. This field appears as <strong>Count</strong>&lt;br&gt;on the Configure I/CF Console Commands CICAT panel.</td>
</tr>
</tbody>
</table>
Defining an I/CF console for an IMS DB/DC region

The following example defines an I/CF console for an IMS DB/DC region. Here, the APPLID of the IMS system is IMS610A and the IMS Master Terminal is R11I225M.

This console sends the IMS Master Terminal, I/CF, and exception messages to the OMEGACENTER Gateway for MVS automation interface exit.

ICFCONSL -
   ACB(R11I225M) -
   DATEFORMAT(2) -
   EXCEPTIONUSERID(MVUSER1) -
   IMSAPPL(IMS610A) -
   IMSID(I61A) -
   LOGCLASS(X) -
   LOGDEST(PR11) -
   LOG MASTER VIEW SUBSYSCONSOLE AUTO
   SESSNAME(IMS V6.1 DB/DC SP11) -
   VIEWSIZE(25000) -

Defining an I/CF console for an IMS DBCTL region

The following example defines an I/CF console for an IMS DBCTL region. As you can see, there is no ACB or IMSAPPL subparameter. I/CF consoles for IMS DBCTL subsystems automatically assume that this is a command-enterable I/CF Master Console. Therefore, this example does not require a MASTER subparameter.

ICFCONSL -
   DATEFORMAT(4) -
   DBCTL SUBSYSCONSOLE -
   EXCEPTIONUSERID(MVUSER1)
   IMSID(I61C) -
   LOG -
   LOGCLASS(X) -
   LOGDEST(PR11) -
   SESSNAME(IMS V6.1 DBCTL SP22) -
   VIEW -
   VIEWSIZE(25000) -
ICFTRAP command

Overview
This unit describes the ICFTRAP command. You can specify this command in your K12START member in *rhilev.midlev.RKANCMD*.

Command syntax
The following is the syntax for the ICFTRAP command.

```
ICFTRAP -
   MASTER CONSOLE ACB(xxxxxxxx) -
   MESSAGE COLOR(x) -
   DELETE MESSAGE -
   CONTIGUOUS TEXT(xxxxxxxxxxxxx...) -
   VIEW MESSAGE -
```

Subparameter descriptions
The following chart describes each of the subparameters for the ICFTRAP command:

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Maximum Length of Parameter Value</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASTER CONSOLE ACB</td>
<td>8</td>
<td>None</td>
<td>The VTAM ACB name you defined for the IMS Master Console. See “Defining a VTAM APPLID” on page 39 for more information. If you omit the MASTER CONSOLE ACB subparameter, this trap applies to all I/CF consoles you defined to this OMEGAMON II address space.</td>
</tr>
</tbody>
</table>
Changing the color of an IMS message

The following example is a message trap that changes the color of the IMS DFS810A message on a specific terminal. This trap is for a specific I/CF console.

ICFTRAP -
   ACB(R11225M) -
   COLOR(R)
   TEXT(DFS810A) -
   VIEW

### Table 12. ICFTRAP Command Subparameter Descriptions

<table>
<thead>
<tr>
<th>Subparameter</th>
<th>Maximum Length of Parameter Value</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MESSAGE COLOR</td>
<td>1</td>
<td>B</td>
<td>Specifies the color of the message as it appears on the I/CF console. The options are as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>R = Red</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>G = Green</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>W = White</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B = Blue</td>
</tr>
<tr>
<td>Note:</td>
<td></td>
<td></td>
<td>If you specify an invalid color, I/CF sets the color to Red. If you do not specify any color, I/CF sets the color to Blue.</td>
</tr>
<tr>
<td>DELETE MESSAGE</td>
<td>0</td>
<td>None</td>
<td>Tells I/CF to delete a previously entered Message Suppression trap, with the same ACB and TEXT subparameter values.</td>
</tr>
<tr>
<td>CONTIGUOUS TEXT</td>
<td>132</td>
<td>None</td>
<td>Any contiguous text (including spaces) which you want matched to each message received from the IMS subsystem.</td>
</tr>
<tr>
<td>VIEW MESSAGE</td>
<td>0</td>
<td>View</td>
<td>Specifies whether or not you can view the message on the I/CF console. Valid codes are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Y = Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N = No</td>
</tr>
</tbody>
</table>
ICFTRAP command

Changing the color of a IMS DBCTL message
The following example is a message trap that changes the color of the DFS989I message from an IMS DBCTL subsystem. This trap is for a specific I/CF console.

ICFTRAP -
  ACB(I61C) -
  COLOR(R) -
  TEXT(DFS989I)
  VIEW

Example of message suppression
The following example is a message trap that suppresses the display of the DFS000I messages from any I/CF console. An IMS DBCTL subsystem produces this particular format of the DFS000I for each command response line.

ICFTRAP- TEXT('DFS000I MESSAGE(S) FROM ID=')-NOVIEW
MSG Command

Overview
Use the MSG command to transmit messages to other I/CF consoles. You can only enter this command on the I/CF console Command line.

*Note:* The system does not send these user messages to the OMEGACENTER Gateway for MVS automated interface exit.

Command syntax
On the Command line of the I/CF console, type

```
MSG xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

where:

```
xxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

is your message text.
AFOPER Command

Overview

Use the AFOPER command to trigger OMEGACENTER Gateway for MVS automation traps.

**Note:** Unlike the MSG command, the system sends these user messages to the OMEGACENTER Gateway for MVS automated interface exit.

Command syntax

On the Command line of the I/CF console, type:

```
AFOPER xxxxxxx
```

where:

```
xxxxxxx
```

is your OMEGACENTER Gateway for MVS automation trigger. See the OMEGACENTER Gateway for MVS manual.
RECYCLE Command

Overview
Use the RECYCLE command to close the VTAM ACB and terminate the active session with IMS. For more information, see “Manual Console Recovery Facilities” on page 97.

Command syntax
On the Command line of the I/CF console, type:

```
RECYCLE
```

*Note:* You can also enter this command from the MVS console. See “ICFCMD - MVS Console Command” on page 100 for more information.
RESTART Command

Overview
Use the RESTART command to terminate a VTAM session with IMS. For more information, see “Manual Console Recovery Facilities” on page 97.

Command syntax
On the Command line of the I/CF console, type:

```
RESTART
```

Note: You can also enter this command from the MVS console. See “ICFCMD - MVS Console Command” on page 100 for more information.
OPEN Command

Overview
Use the OPEN command to open the I/CF console after a CLOSE command.

Command syntax
On the Command line of the I/CF console, type:

```
OPEN
```

Note: You can also enter this command from the MVS console. See “ICFCMD - MVS Console Command” on page 100 for more information.
CLOSE Command

Overview
Use the CLOSE command to close the I/CF console.

Command syntax
On the Command line of the I/CF console, type:

    CLOSE

You can also enter this command from the MVS console. See “ICFCMD - MVS Console Command” on page 100 for more information.
SWITCH Command

Overview
Use the SWITCH command to switch logs. For more information, see “Switching the Logs” on page 77.

Command syntax
On the Command line of the I/CF console, type

    SWITCH

Note: You can also enter this command from the MVS console. See “ICFCMD - MVS Console Command” on page 100 for more information.
SWITCH Command
Chapter overview

This chapter contains new messages for I/CF.

Chapter contents

I/CF Date/Time Stamp Messages ..................................................... 122
I/CF Messages ................................................................. 123
I/CF Date/Time Stamp Messages

Overview
This unit describes the formats for the I/CF date/time stamp messages.

One minute date/time stamp

I/CF DATE/TIME IS: xxxxxxxxxxxxxxxxxxxx HH:MM:SS

Explanation: This highlighted message date/time stamps the console and the audit log at one minute intervals.

xxxxxxxxxxxxxxxxx
The date format you specified using the ICFCONSL command. See “ICFCONSL command” on page 103 for more information.

You can use the FIND facility to locate a specific date/time stamp.

System Action: I/CF displays the message on the console and writes an entry in the audit log.
User Response: None

Change-of-day date/time stamp

I/CF CHANGE-OF-DAY PROCESSING COMPLETE.
aaaaaaaa, xxxxxxxxxxxxxxxxxxxx HH:MM:SS

Explanation: This highlighted message tells when a change of day has occurred.

aaaaaaa The day of the week, such as SATURDAY.

xxxxxxxxxxxxxxxxxxxx
The date format you specified using the ICFCONSL command. See “ICFCONSL command” on page 103 for more information.

You can use the FIND facility to locate a specific change-of-day stamp.

System Action: :sysact.I/CF displays the message on the console and writes an entry in the audit log.
User Response: None
I/CF Messages

Overview

This unit describes the new messages in I/CF.

Messages

ICFCC001  I/CF VECTOR TABLE NOT FOUND.
Explanation:  I/CF could not initialize.
System Action:  The system does not create the I/CF console.
User Response:  Review the RLVLOG for other error messages.

ICFCC002  I/CF IN SHUTDOWN MODE
Explanation:  Someone has started to shutdown the CUA address space while attempting to define an I/CF console.
System Action:  The CUA address space will shut down.
User Response:  None.

ICFCC003  I/CF CONSOLE ALLOCATION FAILURE. SIZE= ########
Explanation:  Unable to obtain storage for the console definition. This occurs when trying to acquire 1600 bytes of extended private storage.
System Action:  The system does not create the I/CF console.
User Response:  Restart the job with a larger region size.

ICFCC007  I/CF UNABLE TO CREATE VIEW QUEUE FOR CONSOLE xxxxxxx
Explanation:  An internal error occurred while trying to create a viewable console.
System Action:  I/CF console is not viewable.
User Response:  Contact the IBM Software Support

ICFCC009  I/CF UNABLE TO CREATE LOG QUEUE FOR CONSOLE xxxxxxx
Explanation:  The system specified logging, but an internal error occurred.
System Action:  Logging is not available for the I/CF console.
User Response:  Contact the IBM Software Support

ICFCC039  I/CF ICFCONSL COMMAND FORMAT ERROR
Explanation:  This is a user definition error.
System Action:  The system does not create the I/CF console.
User Response:  Review the I/CF console definition and correct any errors. Resubmit.
ICFCC041  I/CF DATASET LOGGING REQUIRES LOGDSN1 AND LOGDSN2 DATASETS BE DEFINED.
Explanation: You specified dataset logging, but did not define either LOGDSN1 or LOGDSN2.
System Action: The system does not create the I/CF console.
User Response: Verify the LOGDSN1 and LOGDSN2 dataset definition. Resubmit.

ICFCC042  I/CF DATASET LOGGING REQUIRES LOGARCH1 AND LOGARCH2 ARCHIVING JOBS BE DEFINED.
Explanation: You specified dataset logging, but did not define either LOGARCH1 or LOGARCH2 (archiving jobs).
System Action: The system does not create the I/CF console.
User Response: Verify the LOGARCH1 and LOGARCH2 archiving jobs definition. Resubmit.

ICFCC044  I/CF REQUIRES IMSID OR ACBNAME
Explanation: You did not specify either the IMSID or the ACB name.
System Action: The system does not create the I/CF console.
User Response: Specify the IMSID or the ACB name. Resubmit.

ICFCC047  I/CF REQUIRES IMS VTAM APPLID
Explanation: The system did not find the VTAM APPLID.
System Action: The system does not create an I/CF console.
User Response: Specify the VTAM APPLID and resubmit.

ICFCC089  I/CF UNABLE TO CREATE COMMAND QUEUE FOR CONSOLE xxxxxxxxx
Explanation: The system defined the console as a Master, but an internal error occurred.
System Action: The system does not accept commands from the I/CF console.
User Response: Contact the IBM Software Support

ICFIM001  I/CF VECTOR TABLE NOT FOUND.
Explanation: I/CF could not initialize.
System Action: The system does not create the I/CF consoles.
User Response: Review the rLVLOG for other error messages.

ICFIM002  I2DC VECTOR TABLE NOT FOUND.
Explanation: I2DC could not initialize.
System Action: Subsystem interface is not available. DBCTL I/CF consoles will not be created. MVS responses will not be provided.
User Response: Review the RLVLOG for other error messages.

ICFIM020  IMS CONTROL REGION FOR IMSID zzzzzzz IS NOT FOUND OR IMS SCD NOT VALID
Explanation: The IMS subsystem is not active.
System Action: I/CF attempts to connect to IMS at 10 second intervals until it is successful.
User Response: Investigate why IMS is not active.
ICFIM024  I/CF WILL NOT PROVIDE ANY CONSOLE FOR xxxxxxxx
Explanation:  This is an informational message xxxxxxxx is the console ACB name.
System Action:  The system did not create the specified I/CF console.
User Response:  Review the RLVLOG for other error messages.

ICFIM095  I/CF WILL RETRY EVERY 10 SECONDS
Explanation:  I/CF is not connected to the IMS subsystem.
System Action:  I/CF attempts to connect to IMS at 10 second intervals until it is successful.
User Response:  Investigate why IMS is not active.

ICFJB001  I/CF VECTOR TABLE NOT FOUND.
Explanation:  I/CF could not initialize.
System Action:  The system does not create the I/CF consoles.
User Response:  Review the RLVLOG for other error messages.

ICFJB002  I2DC VECTOR TABLE NOT FOUND.
Explanation:  I2DC could not initialize.
System Action:  Subsystem interface is not available. DBCTL I/CF consoles will not be created. MVS responses will not be provided.
User Response:  Review the RLVLOG for other error messages.

ICFJB020  JOB ADDRESS SPACE FOR zzzzzzzz IS NOT FOUND.
Explanation:  The system did not start the job.
System Action:  I/CF attempts to connect to the address space at 10 second intervals until successfully connected.
User Response:  Investigate why the system did not start the job.

ICFJB024  I/CF WILL NOT PROVIDE ANY CONSOLE FOR xxxxxxxx
Explanation:  This is an informational message xxxxxxxx is the console ACB name.
System Action:  The system did not create the specified I/CF console.
User Response:  Review the RLVLOG for other error messages.

ICFJB038  I/CF JOB zzzzzzzz CONSOLE IS UNABLE TO START. NO SYSTEM BLOCKS AVAILABLE.
Explanation:  The system defined more than 16 I/CF consoles to the CUA address space zzzzzzzz is the job name.
System Action:  The system does not create DBCTL I/CF consoles nor does it provide MVS responses.
User Response:  Contact IBM Software Support

ICFJB095  I/CF WILL RETRY EVERY 10 SECONDS
Explanation:  I/CF is not connected to the address space.
System Action:  I/CF attempts to connect to the address space at 10 second intervals until successfully connected.
User Response:  Investigate why the system did not start the job.

ICFSC005  I/CF COMMAND NOT PROCESSED. CONSOLE xxxxxxxx IS NOT ACTIVE.
Explanation:  You issued the command to an inactive console.
System Action:  The system does not execute the command.
User Response: Investigate why the console is not active.

ICFSC016  COMMAND CHARACTER (X) NOT RECOGNIZED. VALID CHARACTERS ARE (/) = IMS, (.) = VTAM, (-) = MVS.
Explanation: You entered an invalid command character.
System Action: The system does not execute the command.
User Response: Select the appropriate command character. Re-issue the command.

ICFSC017  COMMAND AUTHORIZATION FOR USER xxxxxxxx FAILED.
Explanation: You are not authorized to issue the command you entered xxxxxxxx is the userid.
System Action: The system does not execute the command.
User Response: Contact your system administrator to gain the appropriate authorization.

ICFSC018  cccccccc COMMAND AUTHORIZATION FOR USER xxxxxxxx FAILED.
Explanation: You are not authorized to issue the ICF command you entered.
cccccccc is the userid.
System Action: The system does not execute the command.
User Response: Contact your system administrator to gain the appropriate authorization.

ICFSC117  COMMAND ENTRY NOT AVAILABLE FOR THIS CONSOLE
Explanation: You cannot enter commands from this console. You can only enter commands from an I/CF Master Console.
System Action: The system does not execute the command.
User Response: None

ICFSF001  I/CF VECTOR TABLE NOT FOUND.
Explanation: I/CF could not initialize.
System Action: The system does not create the I/CF consoles.
User Response: Review the RLVLOG for other error messages.

ICFSF121  I/CF UNABLE TO OBTAIN COMMAND ENTRY VALIDATION STORAGE. COMMAND FAILED. CCB ADDRESS = yyyyyyy
Explanation: The system could not get 56 bytes of extended private storage for an internal command validation control block.
System Action: The system does not validate the command. Command authorization fails.
User Response: Restart the address space with a larger region size.

ICFVR001  I/CF VECTOR TABLE NOT FOUND.
Explanation: I/CF could not initialize.
System Action: The system does not create I/CF consoles.
User Response: Review RLVLOG for other error messages.

ICFVR003  I/CF VTAM RECEIVE PROCESSING STARTED FOR CONSOLE xxxxxxxx
ICFVR005  I/CF VTAM RECEIVE PROCESSING TERMINATED FOR CONSOLE
xxxxxxx CCB ADDRESS yyyyyyy
Explanation:  This is an informational message xxxxxxxx is the console ACB name
yyyyyyyy is the CCB address.
System Action:  I/CF console is put in a waiting status. I/CF attempts to reconnect
to IMS.
User Response:  Investigate the cause of the disconnection.

ICFWT001  I/CF VECTOR TABLE NOT FOUND.
Explanation:  I/CF could not initialize.
System Action:  The system does not create I/CF consoles.
User Response:  Review the RLVLOG for other error messages.

ICFWT002  I2DC VECTOR TABLE NOT FOUND.
Explanation:  I2DC could not initialize.
System Action:  Subsystem interface is not available. DBCTL I/CF consoles will
not be created. MVS responses will not be provided.
User Response:  Review the RLVLOG for other error messages.

ICFWT003  I/CF WTO RECEIVE PROCESSING STARTED FOR CONSOLE xxxxxxxx
CCB ADDRESS yyyyyyy
Explanation:  This is an informational message xxxxxxxx is the console ACB name
yyyyyyyy is the CCB address.
System Action:  None.
User Response:  None.

ICFWT005  I/CF WTO RECEIVE PROCESSING TERMINATED FOR CONSOLE
xxxxxxx CCB ADDRESS yyyyyyy
Explanation:  This is an informational message xxxxxxxx is the console ACB name
yyyyyyyy is the CCB address.
System Action:  I/CF console is put in a pending status. I/CF attempts to reconnect
to IMS.
User Response:  Investigate the cause of the disconnection.
I/CF Messages
Chapter overview

This chapter shows examples of each of the new panels and modifications to OMEGAMON II panels for I/CF.

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- CUA Sign On Panel ................................................................. 130
- IMS Console Facility Sign On Panel ........................................ 131
- IMS Console Selection Pop-up .............................................. 132
- IMS Console Facility Panel ................................................... 134
- CUA Operator Assist Panels ............................................... 136
- Set Controls Pop-up ............................................................. 137
- IMS Status - Alerts Exceptions Pop-up ................................. 138
CUA Sign On Panel

Overview
I/CF adds the F11 function key to the CUA Sign On Panel, so you can access the IMS Console Facility without first signing on to IBM Tivoli OMEGAMON II for IMS.

Example
This example shows you the modifications to the CUA Sign On Panel.

Figure 12. CUA Sign On Panel
IMS Console Facility Sign On Panel

Overview

I/CF includes the new IMS Console Facility Sign On Panel that you can use to sign on to the IMS Console Facility.

**Note:** If you enter I/CF after signing on to IBM Tivoli OMEGAMON II for IMS, the IMS Console Facility Sign On Panel does not display.

Example

This example shows you the new IMS Console Facility Sign On Panel.

Figure 13. IMS Console Facility Sign On Panel

```
OMEGAMON II for IMS  IMS Console Facility
                     Sign On Panel

Type the requested information, then press Enter.

Identification
Userid . . . . . _______
Password . . . .
Change Password: No + Yes/No

Additional Information
Group . . . . . _______
Account . . . . . _______________________________________________

F1=Help  F3=Exit  F4=Prompt  F6=Panel ID
```
IMS Console Selection Pop-up

Overview

I/CF includes the new IMS Console Selection pop-up where you choose the IMS console that you want to monitor.

The STATUS field shows the current status of the I/CF connection to a specific IMS. The possible values for the STATUS field are as follows:

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIVE</td>
<td>I/CF has an active VTAM connection to the IMS Master Console or the DBCTL subsystem is active.</td>
</tr>
<tr>
<td>CLOSED</td>
<td>An authorized user has issued a CLOSE command to this console.</td>
</tr>
<tr>
<td>CONNECTING</td>
<td>This is a transient state where I/CF is attempting to establish a VTAM connection to the IMS Master Console or attempting to locate the DBCTL subsystem.</td>
</tr>
<tr>
<td>INACTIVE</td>
<td>I/CF has determined that there is an unrecoverable error with the connection.</td>
</tr>
<tr>
<td>PENDING</td>
<td>I/CF is waiting for the 10 second restart interval to expire. Review the RLVLOG for problem resolution information.</td>
</tr>
<tr>
<td>STARTING</td>
<td>I/CF has a successful VTAM connection to the IMS Master Console or the DBCTL subsystem. I/CF is validating the connection and initializing the logging and viewing options.</td>
</tr>
</tbody>
</table>

Example

This example shows you the new IMS Console Selection pop-up panel.
**Figure 14. IMS Console Selection Pop-up**

<table>
<thead>
<tr>
<th>IMSID</th>
<th>SESSION NAME</th>
<th>CONSOLE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I61A</td>
<td>IMS V6.1 MASTER CONSOLE</td>
<td>R11225M</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>I61A</td>
<td>IMS V6.1 MASTER CONSOLE</td>
<td>RGI225M</td>
<td>PENDING</td>
</tr>
<tr>
<td>I61A</td>
<td>IMS V6.1 SECONDARY CONSOLE</td>
<td>RGI225M</td>
<td>PENDING</td>
</tr>
</tbody>
</table>

KI2PICF          IMS Console Selection

Move cursor to selection, then press Enter.

F1=Help  F12=Cancel
IMS Console Facility Panel

Overview

I/CF includes the new IMS Console Facility panel, where you can issue commands and see responses. It replaces the previous Operator Console (KI2PC147) panel.

Example when using integrated logon

This example shows you the new IMS Console Facility panel that you see when you use the integrated logon.

Figure 15. IMS Console Facility Panel - Integrated Logon

![IMS Console Facility Panel - Integrated Logon](image-url)
Example when using direct and indirect logon

This example shows you the new IMS Console Facility panel that you see when you use direct and indirect logon.

Figure 16. IMS Console Facility Panel - Direct/Indirect Logon

<table>
<thead>
<tr>
<th>Options</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>KI2PCDIS</td>
<td>I61A IMS V6.1 MASTER CONSOLE +</td>
</tr>
<tr>
<td>01/02/97 3:29:17</td>
<td></td>
</tr>
</tbody>
</table>

I/CF DATE/TIME IS: 01/02/97 03:27:57
CMD: 01/02/97 03:28:30 AADRI /DIS ACT

REGID  JOBNAME  TYPE  TRAN/STEP  PROGRAM  STATUS          CLASS
6  IMS61MS1  TPE  MPX00080  MPP00080  WAIT-MESSAGE       1, 2, 3
5  IMS61MS2  TPE  WAITING          2, 3
4  IMSDB23  TP  WAITING           4
BATCHREG  BMP  NONE
3  IMS61FP1  FPM  NO MSG.  DFSIVP4
2  IMS61FP2  FPM  NO MSG.  DFSIVP5
1  IMS61FP3  FPM  NO MSG.  DBFSAMP3
DBTRGN  DBT  NONE
IMS610AB  DBRC
IMS610AD  DLS
VTAM ACB OPEN -LOGONS ENABLED
IMSLU=N/A. N/A APPC STATUS=DISABLED
OTMA GROUP=N/A STATUS=NOTACTIVE
APPLID=IMS610A USERVAR=

Command ==> ___________________________________________________________

F1=Help  F2=Keys  F3=Exit  F4=Prompt  F5=RFind  F7=Bkwd  F8=Fwd  F9=Retrieve
F10=Action Bar  F19=Left  F20=Right
Overview

I/CF removes the mini-console from all the Operator Assist panels, allowing more resources to display at one time on the screen.

The operator Assist panels include Programs, Regions, Databases, Transactions, Network, Conversation, and Logging.

**Note:** Press PF6 from any of the Operator Assist panels, to verify the console command or its response.

Example

Here is an example of the modification to the Operator Assist panel for Programs.

**Figure 17. CUA Operator Assist Panels**
Set Controls Pop-up

Overview

I/CF includes modifications to the Controls pop-up to include a new option, **Automatically go to Console**.

The option default is off.

If you turn this option on, the I/CF Console appears:

- after each action against a resource on any of the Operator Assist panels
- when you press PF12 after entering commands from the IMS Command Entry pull-down

**Note:** You access the Controls pop-up by selecting **Set controls** from the Options pull-down.

Example

Here is an example of the Controls pop-up with the new option.

Figure 18. Set Controls Pop-up

```
KI2PCTRL               Controls

Type any changes, then press Enter.

Interval refresh . . . . . . . . . . . . 30
Wait period for ol Response . . . . . . 120
Green Status Bars Displayed . . . . . . On + Off
Blue Bars Displayed . . . . . . . . . . . On + Off
Use Characters in Status Bars . . . . . On + Off
Show PSBs With Status of Not-Fnd . . . Off + On/Off
Show DMBs With Status of Not-Fnd . . . Off + On/Off
Show RGNs With Status of Idle + Hot . On + Off
Confirm IMS commands before processing . Off + On/Off
Beep on critical exception . . . . . . . Off + On/Off
Character for RED bar . . . . . . . . . #
Character for YELLOW bar . . . . . . =
Character for GREEN bar . . . . . . -
Character for IDLE bar . . . . . . . .

Enter  F1=Help  F4=Prompt  F12=Cancel
```
IMS Status - Alerts Exceptions Pop-up

Overview

I/CF includes a modification to the IMS Status - Alerts Exceptions pop-up to include the new ICFX exception.

Example

Here is an example of the IMS Status - Alerts Exceptions pop-up with the new exception.

Figure 19. IMS Status Alerts Exceptions Panel

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSVVC</td>
<td>IMS control task waiting in SVC code</td>
<td>On + On/Off</td>
</tr>
<tr>
<td>DISP</td>
<td>OI dispatching priority &lt;= than in IMS</td>
<td>On + On/off</td>
</tr>
<tr>
<td>:hp2.ICFX</td>
<td>I/CF not connected to IMS</td>
<td>On + On/Off:ehp2.</td>
</tr>
<tr>
<td>INAC</td>
<td>IMS inactive</td>
<td>On + On/off</td>
</tr>
<tr>
<td>NSDC</td>
<td>TCNS command not issued</td>
<td>On + On/off</td>
</tr>
<tr>
<td>NPDL</td>
<td>No parallel Dl/I</td>
<td>On + On/off</td>
</tr>
<tr>
<td>NLC</td>
<td>Start DC not performed</td>
<td>On + On/off</td>
</tr>
<tr>
<td>OLC</td>
<td>Online change in progress</td>
<td>On + On/off</td>
</tr>
<tr>
<td>OIL</td>
<td>Online change occurred</td>
<td>On + On/off</td>
</tr>
<tr>
<td>RSRC</td>
<td>No VTAM connection to RSR Tracking System</td>
<td>On + On/off</td>
</tr>
<tr>
<td>SAPW</td>
<td>ITASKs IWAITing for dynamic SAPs</td>
<td>On + On/off</td>
</tr>
<tr>
<td>SDSP</td>
<td>Selective dispatching active</td>
<td>On + On/off</td>
</tr>
<tr>
<td>TCOI</td>
<td>TCO inactive</td>
<td>On + On/off</td>
</tr>
<tr>
<td>TMSI</td>
<td>Transport Manager Subsystem not active</td>
<td>On + On/off</td>
</tr>
<tr>
<td>VROQ</td>
<td>LTERM unable to receive output</td>
<td>On + On/off</td>
</tr>
</tbody>
</table>

Exceptions Group Monitor: On + On/Off

Enter F1=Help  F3=Exit  F4=Prompt  F12=Cancel
If you have a problem with your IBM software, you want to resolve it quickly. This section describes the following options for obtaining support for IBM software products:

- “Searching knowledge bases” on page 139
- “Obtaining fixes” on page 140
- “Receiving weekly support updates” on page 140
- “Contacting IBM Software Support” on page 141

**Searching knowledge bases**

You can search the available knowledge bases to determine whether your problem was already encountered and is already documented.

**Searching the information center**

IBM provides extensive documentation that can be installed on your local computer or on an intranet server. You can use the search function of this information center to query conceptual information, instructions for completing tasks, and reference information.

**Searching the Internet**

If you cannot find an answer to your question in the information center, search the Internet for the latest, most complete information that might help you resolve your problem.

To search multiple Internet resources for your product, use the Web search topic in your information center. In the navigation frame, click Troubleshooting and support > Searching knowledge bases and select Web search. From this topic, you can search a variety of resources, including the following:

- IBM technotes
- IBM downloads
- IBM Redbooks®
- IBM developerWorks®
- Forums and newsgroups
- Google
Obtaining fixes

A product fix might be available to resolve your problem. To determine what fixes are available for your IBM software product, follow these steps:

2. Click Downloads and drivers in the Support topics section.
3. Select the Software category.
4. Select a product in the Sub-category list.
5. In the Find downloads and drivers by product section, select one software category from the Category list.
6. Select one product from the Sub-category list.
7. Type more search terms in the Search within results if you want to refine your search.
8. Click Search.
9. From the list of downloads returned by your search, click the name of a fix to read the description of the fix and to optionally download the fix.

For more information about the types of fixes that are available, refer to the IBM Software Support Handbook at http://techsupport.services.ibm.com/guides/handbook.html.

Receiving weekly support updates

To receive weekly e-mail notifications about fixes and other software support news, follow these steps:

2. Click My Support in the upper right corner of the page.
3. If you have already registered for My Support, sign in and skip to the next step. If you have not registered, click register now. Complete the registration form using your e-mail address as your IBM ID and click Submit.
4. Click Edit Profile.
5. In the Products list, select Software. A second list is displayed.
6. In the second list, select a product segment, for example, Application servers. A third list is displayed.
7. In the third list, select a product sub-segment, for example, Distributed Application & Web Servers. A list of applicable products is displayed.
8. Select the products for which you want to receive updates, for example, IBM HTTP Server and WebSphere Application Server.
9. Click Add products.
10. After selecting all products that are of interest to you, click Subscribe to email on the Edit profile tab.
11. Select Please send these documents by weekly email.
12. Update your e-mail address as needed.

13. In the Documents list, select Software.

14. Select the types of documents that you want to receive information about.

15. Click Update.

If you experience problems with the My support feature, you can obtain help in one of the following ways:

Online: Send an e-mail message to erchelp@ca.ibm.com, describing your problem.

By phone: Call 1-800-IBM-4You (1-800-426-4968).

Contacting IBM Software Support

IBM Software Support provides assistance with product defects.

Before contacting IBM Software Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. The type of software maintenance contract that you need depends on the type of product you have:

- For IBM distributed software products (including, but not limited to, Tivoli, Lotus®, and Rational® products, as well as DB2® and WebSphere® products that run on Windows or UNIX operating systems), enroll in Passport Advantage® in one of the following ways:
  - Online: Go to the Passport Advantage Web page (http://www.lotus.com/services/passport.nsf/WebDocs/Passport_Advantage_Home) and click How to Enroll
  - By phone: For the phone number to call in your country, go to the IBM Software Support Web site at http://techsupport.services.ibm.com/guides/contacts.html and click the name of your geographic region.

- For customers with Subscription and Support (S & S) contracts, go to the Software Service Request Web site at https://techsupport.services.ibm.com/ssr/login.


- For IBM eServer™ software products (including, but not limited to, DB2 and WebSphere products that run in zSeries, pSeries, and iSeries environments), you can purchase a software maintenance agreement by working directly with an IBM sales representative or an IBM Business Partner. For more information about support for eServer software products, go to the IBM Technical Support Advantage Web site at http://www.ibm.com/servers/eserver/techsupport.html.

If you are not sure what type of software maintenance contract you need, call 1-800-IBMSERV (1-800-426-7378) in the United States. From other countries, go to the contacts page of the IBM Software Support Handbook on the Web at
To contact IBM Software Support, follow these steps:

1. “Determining the business impact” on page 142
2. “Describing problems and gathering information” on page 142
3. “Submitting problems” on page 143

Determining the business impact

When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem that you are reporting. Use the following criteria:

<table>
<thead>
<tr>
<th>Severity 1</th>
<th>The problem has a critical business impact. You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity 2</td>
<td>The problem has a significant business impact. The program is usable, but it is severely limited.</td>
</tr>
<tr>
<td>Severity 3</td>
<td>The problem has some business impact. The program is usable, but less significant features (not critical to operations) are unavailable.</td>
</tr>
<tr>
<td>Severity 4</td>
<td>The problem has minimal business impact. The problem causes little impact on operations, or a reasonable circumvention to the problem was implemented.</td>
</tr>
</tbody>
</table>

Describing problems and gathering information

When explaining a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Software Support is likely to ask for this information.
- Can you re-create the problem? If so, what steps were performed to re-create the problem?
- Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, and so on.
- Are you currently using a workaround for the problem? If so, be prepared to explain the workaround when you report the problem.
- What software versions were you running when the problem occurred?
Submitting problems

You can submit your problem to IBM Software Support in one of two ways:

- **Online:** Click **Submit and track problems** on the IBM Software Support site at http://www.ibm.com/software/support/probsub.html. Type your information into the appropriate problem submission form.
- **By phone:** For the phone number to call in your country, go to the contacts page of the IBM Software Support Handbook (http://techsupport.services.ibm.com/guides/contacts.html) and click the name of your geographic region.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Software Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the Software Support Web site daily, so that other users who experience the same problem can benefit from the same resolution.
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