

# Basic Configuration Guide

Version 2 Release 1

#### Note

Before you use this information and the product it supports, be sure to read the general information under "Notices" on page 149.

#### Second Edition (January 2017)

This edition applies to Version 2 Release 1 of IBM CL/SuperSession for z/OS (program number 5601-B28) and to all subsequent releases and modifications until otherwise indicated in new editions.

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## Read this first

#### About this document

This guide is a general introduction to IBM® CL/SuperSession for z/OS®. It is intended for users who have limited experience with mainframe computers, but can also help knowledgeable computer users who are becoming acquainted with the user interface.

# **Accessibility**

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in CL/SuperSession enable users to:

- Use assistive technologies such as screen readers and screen magnifier software.
   Consult the assistive technology documentation for specific information when using it to access z/OS interfaces.
- Customize display attributes such as color, contrast, and font size.
- Operate specific or equivalent features using only the keyboard.

You can perform most tasks that are required to set up and run CL/SuperSession by using a 3270 emulator that is logged on to TSO.

IBM Personal Communications for Windows provides 3270 emulation with accessibility features for people with disabilities. You can use this product to provide the accessibility features you need.

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Be sure to include the name of the document, the publication number, the version of IBM CL/SuperSession for z/OS, and, if applicable, the specific location (for example, the page number or section heading) of the text that you are commenting on.

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#### **Documentation conventions**

#### Introduction

The following typographical conventions are used for command syntax in this documentation.

## Panels and figures

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

## **Revision bars**

Revision bars (1) might appear in the left margin to identify new or updated material.

#### Variables and literals

In examples of 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(ccccccc)

In the previous example, you type **LOGON APPLID** followed by an application identifier (represented by *cccccccc*) within parentheses. The application identifier can have at most 8 characters.

Note: In ordinary text, variable names appear in italics.

# **Symbols**

The following symbols might appear in command syntax.

Symbol	Usage
I	The 'or' symbol is used to denote a choice. Either the argument on the left or the argument on the right might be used. Example:  YES   NO  In this example, YES or NO may be specified.
[]	Denotes optional arguments. Those arguments that are not enclosed in square brackets are required. Example:  APPLDEST DEST [ALTDEST]
	In this example, DEST is a required argument and ALTDEST is optional.
{}	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
b	default is YES.  The symbol b indicates a blank space, when needed for clarity.

# Chapter 1. Introduction to IBM CL/SuperSession for z/OS

This manual assumes that you are the CL/SuperSession administrator who is responsible for setting up the security system and defining users. It also assumes that you completed the installation procedures that are described in the *IBM CL/SuperSession for z/OS V2.1 Program Directory*.

## **CL/SuperSession**

CL/SuperSession is a multi-session terminal manager that gives a single 3270 terminal concurrent access to applications in an SNA network.

CL/SuperSession offers users almost instant access to a wide variety of applications.

The multi-session capabilities of CL/SuperSession include a window feature, which can be used to display several session windows on the terminal screen at once or zoom into a particular window for full screen editing.

CL/SuperSession maintains virtual sessions independently of physical sessions. As a result, virtual sessions can continue after the physical terminal session terminates. A user can move to another terminal and transfer virtual sessions to it by logging on to CL/SuperSession at the new terminal while the original virtual sessions are still active.

Find other features that are included with CL/SuperSession in the following list.

Cut and Paste	This feature is used to copy screens or portions of screens between or within sessions.
Data compression	CL/SuperSession supports inbound and outbound data compression for any or all VTAM $^{\!\scriptscriptstyle \otimes}$ applications.
Dynamic session switching	Network users can move easily between applications by using a trigger (hot key or hot phrase) that can include any combination of program attention keys, program function keys, the Enter key, or user-defined tokens.
Extended attribute support	CL/SuperSession provides full support for 3270 extended attributes such as color, blinking, underlining, and program symbol graphics. A user can switch between basic data stream sessions and extended sessions, while CL/SuperSession handles the dynamic adaptation to the changing modes. For details, see the <i>IBM CL/SuperSession for z/OS V2.1 Customization Guide</i> .
Screen print	CL/SuperSession supports directing a hardcopy of any active application session screen to a printer.
Session viewing	Help desk staff and other users with the appropriate authority can view

questions and solve problems.

the most recently displayed screen for one of a user's sessions to answer

# VTAM network access manager

CL/SuperSession provides a single entry point to an SNA network with improved security and enhanced control of the network. Users can be restricted to specific applications, or can be allowed unrestricted access to any application through RACF®, CA-ACF2, CA-TOP SECRET, or site-developed security systems.

CL/SuperSession allows full customization of presentation and processing logic. Screen customization is supported for logon, menu selection, broadcast information, network news, application help facilities, and error notification.

## **CL/SuperSession support for IMS**

CL/SuperSession support for IMS<sup>™</sup> provides access and control facilities for maintaining session integrity with IMS/DC ASSIGN and SEQUEUE session services. If a virtual session is intentionally or accidentally disconnected, CL/SuperSession prevents the next user of the virtual terminal from accessing residual data. For more information, refer to the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

# CL/SuperSession application control system

CL/SuperSession application control system provides the following functionality:

- The *Dialog Manager*, which enables customization of the user interface and provides CL processing logic. The Dialog Manager uses Structured Session Procedure Language (SSPL), a high-level language through which screen presentation formats are customized. SSPL can be used to tailor existing applications without having to modify any application code. Information to or from multiple applications can be integrated into a single screen or application.
- The *Network Access Manager (NAM)*, which controls network access through security systems and user profiles. NAM can serve as a stand-alone security system, or it can work with the security system of your choice (for example, RACF, CA-ACF2 or CA-TOP SECRET).
- The Network Accounting Facility (NAF), which records all network and application access. NAF provides complete activity recording, including all network logons, session initiations, session terminations, and traffic volumes for each session. NAF records can optionally be recorded to the System Management Facility (SMF) dataset. For more information, refer to the IBM CL/SuperSession for z/OS V2.1 Customization Guide.
- The *operator facility*, which provides commands, command lists, terminal displays, and configuration aids. Commands for z/OS, IMS, and VTAM can also be issued and processed through this facility.
- The *virtual terminal pool facility*, which reduces system gens, saves virtual storage, and provides tools for enforcing session time-outs. Virtual terminal pools also eliminate the need to define all terminals when accessing value-added network services.
- The *virtual printer facility*, which enables shared use of a printer among users, regardless of the application in use. CL/SuperSession associates a virtual printer with the physical printer so that each application that requires access to a physical printer can gain access at any time. Multiple virtual sessions are maintained simultaneously by using simple bracket initiation control, which ensures complete integrity of outbound print streams in all stages. A constant flow of print streams from multiple applications in first-in-first-out order requires no intervention or session termination and restarts.

#### **Product libraries**

You can find the CL/SuperSession primary libraries, along with the common name of each library, and a brief description of each in the following table.

Note: Each library name has a high-level qualifier that is determined at installation time.

Table 1. CL/SuperSession Libraries

Name	Common Name	Description
SKLSCMDS	Command Library	Command lists that control initialization
SKLVCMDS	Command Library	and operation.
SKLSPARM	Initialization Library	Initialization and configuration parameters.
SKLVPARM	Initialization Library	
SKLSPNLS		Dialogs that control the user interface
SKLVPNLS		screens (or panels).
SKLSHAOP	Panel Library	For more information, refer to the SSPL Programming Guide and Reference manuals.
SKLSSAMP	Campala Library	Cample dialogo utilities and exite
SKLVSAMP	Sample Library	Sample dialogs, utilities, and exits.
SKLSLOAD	Load Library	Contains load modules and may also contain user exit routines if implemented SKLVLOAD.
SKLSHHLP	Help Library	Dialogs that control the Help information
SKLVHHLP		panels.
SKLSGMAC	Assembler Macro Library  Macros required for user exits compilation.	
SKLSINST	Installation JCL Library Basic configuration sample JCL.	

It is recommended that you change only the user libraries, with the -RHILEV-, -RUNPFX-cccc data set names, and keep the product libraries as shipped.

Note: In CL/SuperSession V2.1, all the user exits (except for those that are ACF2 based), supplied in the SKLSSAMP target library, are precompiled and pre-linked. These user exits are delivered in load-module form in the SKLSLOAD target library.

The procedures that are described in this manual use the members that are shown in Table 2. You can copy all members that are listed in Table 2 into your user libraries now, or you can add each member as you need it.

Review the user library members to be sure that you do not overlay members that were already copied and modified.

For more information on the libraries and members invoked during startup, see Chapter 7, "Starting and stopping CL/SuperSession," on page 73.

#### **Product libraries**

Table 2. Members Commonly Customized During Basic Configuration.

Library	Member	Description
SKLSSAMP		Sample user exits.
	KLGCAPLT	Defines application lists.
SKLSCMDS	KLGCAPLS	Defines PASS and SINGLE type applications.
SKLVCMDS	KLSCAPLS	Defines MULTI type applications.
	KLS\$VSMS	Contains VSM commands that define virtual terminal pools.
	KLGIAPL1	Lists SINGLE type applications.
SKLSPARM	KLGIAPL2	Lists MULTI and PASS type applications.
	KLGICFGn	Defines a gateway configuration.
SKLVPARM	KLVINNAM	Contains security information.
SKLSINST	KLS0CUST	Basic configuration JCL.

#### **Basic configuration updates**

During the basic configuration process, you need to make the following updates after you complete the standard SMP/E product installation.

- 1. Modify the SKLSINST(KLS0CUST) JCL in the runtime INST library and specify your basic configuration parameters.
- 2. After you complete your updates, run the KLS0CUST job to update the remaining members of SKLSINST. KLS9CUST is one of the members that are modified.
- 3. Run the KLS9CUST job that updates the following members into their corresponding runtime libraries:

Table 3. Libraries and Members Updated by KLS9CUST

Library	Member
SKLSPARM	KLSSYSIN

Table 3. Libraries and Members Updated by KLS9CUST (continued)

Library	Member
SKLSCMDS	KLGCAPLO
	KLGCAPLS
	KLGCAPLT
	KLGCBCGP
	KLGCHGGW
	KLGCSTGW
	KLHCDLG
	KLHCDLGH
	KLICIDEF
	KLICIMTO
	KLS\$VSMS
	KLSCAPLO
	KLSCAPLS
	KLSCINSS
	KLSINNAM
	KLSSTART
	KLSSTRIV
SKLSSAMP	KLS
	KLS@ASM
	KLSVTLST
SKLVPARM	KLVINNAF
	KLVINNAM
	KLVINTB
	KLVINVLG
	KLVINVPO

# **Function keys**

Function keys are used to perform many CL/SuperSession tasks. The keys and their uses are displayed at the bottom of each panel. Only the function keys that are available for a panel are displayed. For example, panels with data that may continue over several screens display the backward and forward function keys, F7 and F8, while single-screen panels do not.

The following keys are available from most panels:

Enter	Causes CL/SuperSession to process the current panel and save the data that is typed in all fields.	
F1	Displays help for the current panel, window, or field.	
F2	In help screens, gives in-depth information on a panel, field, or function.	
F3	Exits the current panel.	
F4	Displays a list of valid selections for an input field. If there are only two valid selections, <b>F4</b> toggles between the two.	

## **Function keys**

F5	Refreshes the current panel by clearing and updating it.	
F7	Scrolls backward if more lines exist than can be displayed on the current panel.	
F8	Scrolls forward if more lines exist than can be displayed on the current panel.	
F9	Retrieves the last command that is issued and re-enters it on the command line. By pressing <b>F9</b> repeatedly, you can retrieve up to 10 previous commands.  On panels where <b>F9=Reset</b> appears, the key resets the field's profile type (user, group, or global) one level higher. If the field is already set at the highest level, global, pressing <b>F9</b> will have no effect. <b>Note:</b> For session profiles, APPLDEF is the highest level.	
F10	Moves the cursor to the home position on the action bar.	
F12	Cancels the current panel and erases all changes and additions made in any of the fields since you last pressed <b>Enter</b> .	

# Chapter 2. Configuration planning and procedures

This chapter guides you through the configuration of CL/SuperSession.

# **Configuration checklist**

The following table outlines the activities that are involved in the configuration process. The activities are listed in the sequence in which they are to be performed. A detailed description of each activity is provided in the following sections of this chapter. Use the  $\lor$  column to check off steps as you complete them.

Table 4. Configuration Checklist

V	Configuration Activity	
	Review the configuration planning information.	
	Modify the started task JCL(KLS0CUST) and authorize the runtime load libraries.	
	Add supplementary mode table (if required).	
	Include APPL definitions in SYS1.VTAMLST.	
	Set dispatching priority (if required).	
	Verify the installation.	

### Other considerations

#### Table database

The table database is designed to accommodate large tables with minimum resource contention. VSAM will automatically calculate a control interval size of 10240 for the Table Database. An LSRPOOL specifying (10240,32) is included in KLSSYSIN at product installation. This keeps CI contention at a low level, though it requires more DASD than a smaller block size does.

# Configuration and installation

# **General assumptions**

The "Product CBPDO" RELFILEs were previously copied into DASD with names that begin with the customized high-level qualifier - (-HILEVQ-).

The "Product CBPDO" SMPMCS was previously copied into DASD with a name that begins with the customized high-level qualifier - (-HILEVQ-).

The first RELFILE has been copied into the runtime installation library named -RHILEV-.RLSINST, with -RHILEV- as the designated high-level qualifier of all runtime non-VSAM data sets.

# Standard IBM ShopZ CBPDO product installation

After a standard CBPDO product installation, all SMP/E datasets have been created and fully installed accounting for all actions from phase 2 to phase 4 (see the following).

#### Standard IBM ShopZ CBPDO product installation

**Note:** If you start with a given set of target and distribution libraries, you need to run Phase 1 and Phase 5 only to complete the **basic customization** of CL/SuperSession.

#### JOB card conventions

**Note:** You may need to modify some of the above JOB card parameters, such as accounting code, according to your local conventions.

## **Customize the installation JCL - Phase 1**

1. Update member KLS0CUST in -RHILEV-.RLSINST with your selected values of the expected site-specific customization for the installation parameters. Review KLS0CUST for required customization and options.

Note: You may leave most of the default values unchanged.

**Note:** If your default national language is not ENG(English), replace -LANGwith:

'DEU' (German), or

'ITA' (Italian), or

'FRA' (French), or

'FRC' (Canadian French).

2. Run the modified job KLS0CUST from -RHILEV-.RLSINST.

**Note:** This will also customize all remaining installation jobs.

#### Create new SMP/E Environment - Phase 2

Run KLS1ALCZ, KLS2ALCS, KLS3ALCL, KLS4DEFZ, KLS5DEFL in that order.

# Run SMP/E RECEIVE of RELFILEs and GA PTFs - Phase 3

Run KLS6RECV.

# Load KLS target and distribution libraries - Phase 4

Run KLS7APLY, KLS8ACPT.

#### Allocate and initialize all runtime datasets - Phase 5

Run KLS9CUST.

#### Installation results

When you have completed the installation of CL/SuperSession, you should have the following:

-HILEVQ-.AKL\* is a complete set of CL/SuperSession distribution libraries.

-HILEVQ-.SKL\* is a complete set of CL/SuperSession target libraries.

- -RHILEV-.RLS\* is a complete set of CL/SuperSession runtime datasets.
- -RHILEV-.RLSSAMP(-SSPROC-) is your CL/SuperSession started task procedure.
- -RHILEV-.RLSSAMP(-VTNODE-) is your CL/SuperSession VTAM major node definition.

## **Environment preparation**

Copy into the system's PROCLIB dataset, the following JCL procedure member, from the - RHILEV-.RLSSAMP runtime sample library:

-SSPROC- CL/SuperSession started task procedure (default is KLS)

Copy into the system's VTAMLST dataset, the following VTAM resource definitions member, from the -RHILEV-.RLSSAMP runtime sample library:

-VTNODE- CL/SuperSession VTAM major node (default KLSVTLST)

**Note:** The following z/OS operator commands are already included in the customized - SSPROC- member.

They are still required prior to submitting CL/SuperSession as a batch job instead of a started task. Use z/OS operator command "SETPROG APF,ADD" to declare the following libraries as APF AUTHORIZED:

- -HILEVQ-.SKLSLOAD
- -HILEVQ-.SKLVLOAD
- -RHILEV-.RLSLOAD

Activate the CL/SuperSession communication nodes by issuing the following VTAM command from the z/OS operator console:

/V NET,ACT,ID=-VTNODE-

# Installing multiple CL/SuperSession started tasks

The following describes how to install multiple CL/SuperSession started tasks.

Create copies of the SMP/E installed target libraries following the same naming convention of a **-HILEVQ-.<Lib\_Type>**.

Create a runtime installation library named -RHILEV-.-RUNPFX-INST and copy it into the SKLSINST target library.

**Note:** -RHILEV- is the selected run time high-level qualifier, -RUNPFX- is the selected run time type qualifier prefix.

Execute only Phase 1 and Phase 5 of the installation process, as described under "Configuration and installation" on page 7 earlier in this chapter.

Perform the necessary environment preparation steps, as described under "Environment preparation" earlier in this chapter.

Perform the installation verification steps, as described in Chapter 3, "Installation verification," on page 13.

## Installing HelpDesk High Availability Option Nodes

The following describes how to install HelpDesk High Availability Option Nodes.

The CL/SuperSession V2.1 HAO functionality can be implemented by following the procedure for installing multiple CL/SuperSession started tasks.

You have the option of installing up to 3 HAO nodes "out of the box" by following the CL/SuperSession standard naming convention for the libraries and defined element names.

The CL/SuperSession V2.1 HAO functionality can be implemented by following the procedures for installing multiple CL/SuperSession started tasks.

For more information regarding the High Availability Option, see Chapter 9, "High Availability Option," on page 99.

For more information regarding the HelpDesk, see Chapter 10, "The HelpDesk," on page 115.

# Prepare to run multiple CL/SuperSession address spaces concurrently (optional)

If you do want to run Version 2.1 concurrent with Version 1.4.7, you must ensure that the VTAM ACBNAMEs are unique for each environment (Version 1.4.7 and Version 2.1).

The VTAM major node names in SYS1.VTAMLST must be different. Make sure that all datasets are unique to their respective environments.

You need to specify unique values for the following variables:

- · -SSPROC-
- · -VTNODE-
- -VTPREF-
- -VGENRES-
- -VMTOPREF-
- -HELPREF-

# Add supplementary mode table

If you use 3270 extended datastream support and the appropriate logmodes are not available in the IBM default logmode table, ISTINCLM, you must perform the following.

Ensure that any logmodes assigned in dialog KLSLMOD or in the online logmode table are also contained within the MODETABs that you reference on your virtual devices. You can add your own MODETAB references to KLSVTLST member and corresponding changes to KLSLMOD, if you so choose. Otherwise, skip to "Include APPL definitions in SYS1.VTAMLST" on page 11.

Member -THILEV-.SKLSSAMP(KLSINCLM) contains a supplementary mode table to be used with the 3270 virtual terminal APPL definitions that may be used in SYS1.VTAMLST. If necessary, you can use the supplementary table with physical terminal definitions.

#### Add supplementary mode table

- 1. Copy the JCL contained in -THILEV-.SKLSSAMP(KLS@ASM) into a user library (for example, -RHILEV-.RLSSAMP) to edit. Modify this JCL to assemble and link-edit -THILEV-.SKLSSAMP(KLSINCLM) into the SYS1.VTAMLIB dataset.
- 2. In -RHILEV-.RLSSAMP(KLSVTLST), specify MODETAB=KLSINCLM in the APPL definition for virtual terminals.

## Include APPL definitions in SYS1.VTAMLST

#### **Important**

The member -RHILEV-.RLSSAMP(KLSVTLST) contains VTAM APPL macro definitions with the corresponding ACBNAME parameters. Please ensure that the APPLIDs and ACBNAMEs do not conflict with any existing network names defined in your NCPGENs. Your VTAM system programmer should be able to identify names in member KLSVTLST that conflict with your installation's naming convention.

-RHILEV-.RLSSAMP(KLSVTLST) contains the list of VTAM APPL definitions that are used in this installation.

Copy member -RHILEV-.RLSSAMP(KLSVTLST) into SYS1.VTAMLST(*newname*), where *newname* is a name that conforms with your installation's naming convention for major node names.

## **Set dispatching priority**

To function efficiently, CL/SuperSession must have a high dispatching priority. Set its dispatching priority just below that of VTAM and JES. Make sure that no applications that will be accessed via CL/SuperSession have a dispatching priority higher than that of CL/SuperSession.

# **Chapter 3. Installation verification**

#### Introduction

Complete the following procedures to verify that CL/SuperSession has been installed properly.

**Note:** If during the installation you specified the parm USEHAO=Y, three address spaces and corresponding runtime/configuration libraries were created for your High-Availability Option environment. And the installation validation procedurebelow needs to be completed for each address space.

If you decide to verify your CL/SuperSession V2.1 with a previously initialized NAM database, for instance, -RHILEV-.RLSNAM as part of a migration from CL/SuperSession V147, update member RLSCMDS(KLSSTRIV) as follows:

Comment out (or delete) the line with "KLSINNAM" Uncomment the line with "KLSINNA2"

1. Start the CL/SuperSession task by entering from the z/OS console:

#### /S -SSPROC-

- 2. Log on via "LOGON APPLID(-VTPREF-1)" with -ADMINID- & Password (same as -ADMINID-). The default for -VTPREF-1 is **SSTERM1.**
- 3. Select the ADMIN pull-down menu and "A Profile administration".
- 4. Select "View user profiles", where you should select -ADMINID-.
- 5. Select your "Common Profile Segment". This is where you set the "Administrator authority" to "Y", as well as other preferred authority settings.
- 6. Return to main menu and enter "RESET" in the command field.
- 7. Select the HELPDESK application from the main menu by pointing the cursor at the entry and pressing the **ENTER** key. You will be asked to repeat your details.
- 8. Select the HELPDESK ADMIN pull-down menu and then select "U Set user authorities", where you set all the options for "HelpDesk User Authorities" to "Y".

# Test the CUA Operator

- 1. Log on to APPLID *xxxx5* as follows:
  - a. From any VTAM terminal not currently in session with another application, enter **LOGON APPLID**(xxxx5).
  - b. Enter the user ID and password.
  - c. You will be prompted to enter a new password. Enter a new password for the user ID.
- 2. Issue the following command:

#### **OPERS**

You will see a list of active operator IDs.

3. To exit the operator facility, enter this command:

L0G0FF

## Test CL/SuperSession application selection

This demonstrates the application selection capabilities of CL/SuperSession.

- 1. To try out configuration KLGICFG1:
  - a. From any VTAM terminal not currently in session with another application, enter

LOGON APPLID(ssterm1).

where **ssterm** is the value that is specified in RLSINST(KLS0CUST) for variable -VTPREF (specified or defaulted). The default is SSTERM1.

b. Enter the User ID and Password that is used during installation.

Enter the User ID (admin) where admin is the value specified –ADMIN-.

The default is SSADMIN.

**Note:** The password is the same as the User ID.

The CL/SuperSession Main Menu appears.

2. Specify one of the TSO, CICS® or IMS applications defined in KLS0CUST that appear on the screen.

-TSODEST- TSO LOCAL NETWORK NAME
MAXIMUM 8 CHARACTERS
DEFAULT: TSO1
-CICSDEST- CICS LOCAL NETWORK NAME
MAXIMUM 8 CHARACTERS
DEFAULT: CICS1
-IMSDEST- IMS LOCAL NETWORK NAME
MAXIMUM 8 CHARACTERS
DEFAULT: IMS1

**Note:** Logon by using a User ID and password that is valid for these environments.

- 3. Log on to TSO.
- 4. Continue to the following "Test CL/SuperSession triggers".

# Test CL/SuperSession triggers

At this point in the validation, you are logged on to a virtual session (for example, TSO) maintained by CL/SuperSession. Then you can execute a "trigger."

- 1. To test the CL/SuperSession triggers, type \m in the first position of any input field in an application and press **Enter**.
  - The CL/SuperSession Main Menu reappears. For a complete explanation of triggers, see the *IBM CL/SuperSession for z/OS V2.1 User's Guide*.
- 2. Now that you're back to the main menu you will observe your session's "status" has changed to "Current<sup>®</sup>." You can return to this session or any other session that may be active by scrolling down to it and pressing Enter. Scroll down to an active session and press Enter.
- 3. Press F3 to exit CL/SuperSession.

# Stop the installation verification test

1. Stop the CL/SuperSession address space by issuing the following command from the z/OS console:

F kls, SHUTDOWN

where *kls* is the name of the started task.

#### Stop the installation verification test

CL/SuperSession requires two consecutive SHUTDOWN commands. This is done to prevent accidental shutdown. You can change this during customization. After issuing the first SHUTDOWN command, the system will respond with the following message:

KLVOP022 SHUTDOWN MUST BE CONFIRMED WITHIN 15 SECONDS

Reissue the SHUTDOWN command from the z/OS console within 15 seconds. F kls, SHUTDOWN

### Note about customization

Before you modify any members, review the following comments regarding ISPF editor NUMBER mode:

- RLSPNLS members require NUMBER OFF.
- RLSCMDS and RLSPARM library members may have either NUMBER ON or NUMBER OFF. When these members are read, a determination is made by examining the first record.
  - If columns 73 80 of the first record contain a number, it is assumed that all records have a number in columns 73 - 80.
  - If columns 73 80 of the first record do not contain a number, it is assumed that none of the records have a number in columns 73 - 80.

Note: If members are modified with mixed NUMBER options, one of the following can occur:

- If the first line has a number, any data in columns 73 80 of subsequent lines will be ignored. This could cause truncation or omission of a parameter.
- If the first line does not have a number, any number in columns 73 80 of subsequent lines will be treated as data.

This can cause unpredictable results.

# Installation verification cleanup

After a successful installation and verification, you may optionally run job KLS\$WIPE to delete all the input files that will no longer be required for the maintenance of this release.

- 1. Update member RLSPARM(KLSSYSIN) as follows: Comment out (or delete) the line with "INITIAL(KLSSTRIV)" Uncomment the line with "INITIAL(KLSSTART)"
- 2. Update member RLSPARM(KLVINNAM) DEFAULT entry as follows: Replace keyword NORACF with keyword SAF Replace keyword DB with keyword NODB

If you are a new user of CL/SuperSession, you may now proceed with customization of the product by referring to the remainder of this manual and to the IBM CL/SuperSession V2.1 Customization Guide.

If you are migrating from CL/SuperSession V1.4.7, you must first follow the appropriate procedure as detailed in Appendix A, "Migration from earlier

#### Installation verification cleanup

versions," on page 141. Then you may proceed with customization of the product by referring to the remainder of this manual and to the *IBM CL/SuperSession V2.1 Customization Guide*.

#### What's next

If you have followed the procedures in "Configuration checklist" on page 7, your system should consist of the following:

- · Creation of an administrator user ID.
- A default set of applications.
- The Network Access Manager (NAM) security system.
- The Network Accounting Facility (NAF).
- The operator facility.
- An SAA / CUA interface to the operator facility.
   You may want to perform some or all of the following configuration steps.
- Set up security.
   To use the CA-ACF2, RACF, or CA-TOP SECRET security system, read Chapter 4, "Setting up security," on page 17.
- Configure CL products further by defining extra applications or modifying the GLOBAL Profile.
  - To define extra applications and set up authorization application lists, read Chapter 5, "Defining applications," on page 21.
  - To modify the GLOBAL Profile and create group and user profiles, read Chapter 6, "Using administrator functions," on page 37.

This manual assumes that you know how to start and stop CL/SuperSession. The last chapter, Chapter 7, "Starting and stopping CL/SuperSession," on page 73 reviews these procedures.

# Chapter 4. Setting up security

The Network Access Manager (NAM) can either serve as a stand-alone security system or provide an interface to the security system of your choice.

Member KLVINNAM in library -THILEV-.SKLVPARM contains the security system information. KLVINNAM defines one or more *control points*, each of which selects a security system and names a VSAM file to store NAM information. When NAM is the chosen security system, the VSAM file also holds encrypted security information. By default, CL/SuperSession uses only one control point, so that all users access applications through the same security system.

The initial configuration you installed specifies the NAM database as the security system. The sections in this chapter describe interface procedures to NAM and to other security systems, including RACF, CA-ACF2, and CA-TOP SECRET.

**Note:** If you use PassPhrase support then you must use SAF.

# **Using RACF**

Before you install the RACF interface, make sure -THILEV-.SKLSLOAD, -THILEV-.SKLVLOAD, and, if allocated, -RHILEV-.RLSLOAD are APF-authorized. (For more information on APF authorization, see the IBM *SPL: Initialization and Tuning* manual.)

In addition, you must make sure that RACF gives CONTROL authority to the CL/SuperSession address space for all of the VSAM files it uses. These are the NAM, VIEWLOG, and TABLEDB datasets.

Make the following changes to member -RHILEV-.RLSPARM(KLVINNAM) in your initialization library.

- 1. Change NORACF to SAF.
- 2. Change DB to NODB.

The member should look like this when you finish:

```
DEFAULT DSNAME(-RHILEV-.RLSNAM) -
SAF -
NODB
```

You may need to change the current value assigned to the RESERVE parameter in -RHILEV-.RLSPARM(KLSSYSIN). For more information on the RESERVE parameter, see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

Restart CL/SuperSession to initialize the change.

**Note:** Although you may still specify RACF in the KLVINNAM member, SAF is preferable.

SAF utilizes the z/OS System Authorization Facility, and will automatically allocate certain control blocks above the 16M line. The SAF interface uses RACROUTE instead of RACINIT processing.

## **Using CA-ACF2**

Before you install the CA-ACF2 interface, make sure -THILEV-.SKLSLOAD, -THILEV-.SKLVLOAD, and, if allocated, -RHILEV-.RLSLOAD are APF-authorized. (For more information on APF authorization, see IBM's *SPL: Initialization and Tuning* manual.)

To install an exit for ACF2 security validation, follow these steps.

- 1. If KLS@ASM is not already in -RHILEV-. RLSSAMP, copy -THILEV-.SKLSSAMP(KLS@ASM) into -RHILEV-.RLSSAMP.
- 2. Member KLSA2NEV of -THILEV-.SKLSSAMP is the CL/SuperSession interface to ACF2.
  - Assemble and link KLSA2NEV with AC=1 into the -RHILEV-.RLSLOAD library. Member KLS@ASM of -RHILEV-.RLSSAMP contains assembly JCL that you can modify according to instructions in the member.
- 3. Because CL/SuperSession uses a multiuser system access control point, it has all the characteristics of an ACF2 Multiple User Single Address Space System (MUSASS). That is, system access validations are initiated and enforced by the address space on behalf of the network user.

Define the CL/SuperSession started task as a MUSASS to ACF2.

- a. At the READY prompt, type ACF and press Enter.
- b. At the ACF prompt, type **SET LID** and press **Enter**.
- c. At the LID prompt, type **CH klv MUSASS** (where -RVHILEV- is the name of the CL/SuperSession started task) and press **Enter**.
- d. At the LID prompt, type **END** and press **Enter**.
- 4. Change member KLVINNAM in -RHILEV-.RLSPARM.
  - a. Add the EXIT=KLSA2NEV parameter. For example:

```
DEFAULT DSNAME(...) EXIT=KLSA2NEV
```

b. Change DB to NODB.

The member should look like this when you finish:

DEFAULT DSNAME(&rvhilev.RLSNAM) EXIT=KLSA2NEV NORACF NODB

Restart CL/SuperSession to initialize the change.

**Note:** You may need to change the current value assigned to the RESERVE parameter in -RHILEV-.RLSPARM(KLSSYSIN). For more information on the RESERVE parameter, see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

# **Using CA-TOP SECRET**

Before you install the CA-TOP SECRET interface, make sure -THILEV-.SKLSLOAD, -THILEV-.SKLVLOAD, and, if allocated, -RHILEV-.RLSLOAD are APF-authorized. (For more information on APF authorization, see IBM's *SPL: Initialization and Tuning manual.*)

To install an exit for CA-TOP SECRET security validation, do the following:

1. Copy -THILEV-.SKLSSAMP(KLSVSSEC) into -RHILEV-.RLSPNLS.

- 2. If KLS@ASM is not already in -RHILEV-.RLSSAMP, copy -THILEV-.SKLSSAMP(KLS@ASM) into -RHILEV-.RLSSAMP.
- 3. Assemble and link KLSTSNEV with AC=1 into the -RHILEV-.RLSLOAD library. (Member KLSTSNEV of -RHILEV-.SKLSSAMP is the supplied interface to CA-TOP SECRET.) Member KLS@ASM of -RHILEV-.RLSSAMP contains assembly JCL that you can modify according to instructions in the member.
- 4. Make the following changes in -RHILEV-.RLSPARM(KLVINNAM).
  - a. Change NORACF to SAF.
  - b. Change DB to NODB.

The member should look like this when you finish:

```
DEFAULT DSNAME(-RVHILEV-.RLSNAM)
SAF
NODB
EXIT=KLSTSNEV
```

c. Define the CL/SuperSession address space as a started task in the STC record, and relate it to a master facility accessor ID (ACID). For example, enter

```
TSS ADD(STC) PROC(task) ACID(master facility acid)
```

where task represents the name of the started task. The task and the master facility ACID can be the same.

d. Define task as a FACILITY to CA-TOP SECRET in the Facility Matrix Table, where *task* is the started task name.

To use the same FACILITY name across multiple CL/SuperSession address spaces, the FACILITY name must match at least 1 of the started task names in each address space.

The following example shows FACILITY statements from a production installation using CA-TOP SECRET as the security system. Some statements may not be relevant to your system, so you may need to modify them to fit your standards and configuration.

Figure 1. Sample FACILITY Statements for CA-TOP SECRET

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

**Note:** Make certain that the SIGN parameter on the FACILITY statement is specified as SIGN(M). Otherwise, CA-TOP SECRET may produce a message stating that user access has been revoked. Also, verify that MODE=FAIL is set.

5. Restart CL/SuperSession to initialize the change.

# Using the NAM database

If you are using the NAM database, you do not need to change -RHILEV-.RLSPARM(KLVINNAM) because KLVINNAM selects NAM by default. However, you must define your users to NAM.

To add more user IDs to the NAM database, issue the following command through the CL/SuperSession Engine operator facility:

#### **Using the NAM Database**

#### NAM SET userid PASSWORD=password

You can access the operator facility from the Main Menu. For more information on the operator facility, see the *CL/SuperSession Operator's Guide*.

Alternatively, you can issue the commands from the system console with the z/OS MODIFY command:

#### F kls, NAM SET userid PASSWORD=password1

whereklsis the name of the CL/SuperSession started task.

If you have many users to define to NAM, you can create a member in your command runtime library that contains the NAM SET commands for each user that you want defined to NAM. For example, if you create a member called \$USERIDS that contains the NAM SET commands, you can issue the command USERIDS to the operator facility, or you can issue the following command from the system console:

#### F kls, USERIDS

**Note:** The dollar sign (\$) prefix is optional for member names.

# Using another security system

If you want to use any other security system (for example, one that you developed in-house), you can develop your own interface and specify it using the EXIT parameter in member KLVINNAM. For further discussion of the EXIT parameter, see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

# **Chapter 5. Defining applications**

This chapter describes the methods of defining applications to CL/SuperSession.

There are two ways to make sessions available to users: via Session Profiles and/or via the APPLDEF command. Unless you have a technical reason to do otherwise, IBM support recommends that administrators define sessions to the GLOBAL, GROUP, and USER session profiles to facilitate troubleshooting and user-modifications.

#### **Session Profiles**

A CL/SuperSession administrator can add sessions available to all users, a group of users, or a single user by defining the sessions to GLOBAL, GROUP, and USER session profiles respectively. Administrators can also prohibit a USER or GROUP from accessing sessions defined at the GLOBAL level. For more information, refer to Chapter 6, "Using administrator functions," on page 37.

#### **APPLDEFs**

As with the functionality of the GLOBAL Session Profile, the APPLDEF command can define an application and make it available to all users. You can associate an authorized application list (APPLIST) to restrict application access.

IBM recommends you include a member in a command library for your APPLDEF commands that define production applications. Refer to the example in -RHILEV-.RLSCMDS(KLSCAPLS). The session ID specified in the APPLDEF command creates a unique application definition. Therefore, any reference to the application in other commands must specify the session ID. Some of your customization needs may go beyond the procedures provided here. If so, refer to the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

# **Session types**

Before you can define an application, you need to decide how you want sessions with that application to be established. CL/SuperSession offers three methods for establishing sessions with applications.

- PASS A PASS (VTAM CLSDST PASS) type session transfers control to the selected session. This option does not use virtual terminals. After the target session is logged off, the user is returned to the main menu. Because CL/SuperSession does not maintain control of the session, as such, product features like triggers and messaging are not available to users of PASS(ed) applications.
- SINGLE A SINGLE type session uses a virtual terminal. CL/SuperSession remains in control of the session though product features like triggers and messaging are not available to users of this type of session. When you log off the session, you are returned to the Main Menu.
- MULTI As the name implies, you can run more than one MULTI type session at a time. In addition, CL/SuperSession features, such as triggers and messaging remain available always. This option uses virtual terminals.

# Specifying session types with APPLDEFs

Copy KLSCAPLS and KLGCAPLS into -RHILEV-.RLSCMDS from -THILEV-.TLSCMDS. CL/SuperSession gets application definitions from session profiles and/or -RHILEV-.RLSCMDS. Members KLSCAPLS and KLGCAPLS in -RHILEV-.RLSCMDS contain the APPLDEF commands issued during product startup that define applications. KLGCAPLS contains APPLDEF commands that define PASS and SINGLE type applications. KLSCAPLS contains APPLDEF commands the define CL/SuperSession-capable (MULTI) applications.

## **Defining PASS type applications**

To add a PASS application, you can either modify an existing application definition or insert a new APPLDEF command. The basic command format to add a PASS session application is:

```
APPLDEF sessionid -
DEST(destination) -
DESC('description')
```

**Note:** Most application definitions provided in KLGCAPLS contain more parameters than shown here. At this stage of configuration, you need not concern yourself with the additional parameters (for example, SIMLOGON and USERDATA). For more information on the APPLDEF command, refer to the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

In -RHILEV-.RLSCMDS(KLGCAPLS), specify the sessionid parameter to identify the application (for example, TSOA). The session ID parameter is required and can be up to 8 characters long. Specify the DEST parameter to designate the VTAM network destination (APPLID). This parameter is required. DESC contains the session description that appears on the menu display (for example, 'TSO SYSTEM A'). Add a DESC parameter to describe the session and clarify its use. This parameter is optional. Your application definition might look something like this:

```
APPLDEF TSOA -
DEST(your_TSO_APPLID) -
DESC('TSO SYSTEM A')
```

#### **Defining SINGLE type applications**

To add a SINGLE application, you can either modify an existing application definition or insert a new APPLDEF command. The basic command format for adding a SINGLE session application is:

```
APPLDEF sessionid -
DEST(destination) -
DESC('description') -
POOL(poolname) -
MULTSESS=NO
```

**Note:** Most application definitions provided in KLGCAPLS contain more parameters than we show here. At this stage of configuration, you need not concern yourself with the additional parameters. In -RHILEV-.RLSCMDS(KLGCAPLS), specify a sessionid parameter to identify the application (for example, TSOA). The session ID parameter is required and can be up to 8 characters long. Specify the DEST parameter to designate the VTAM network destination (APPLID). This parameter is required. DESC contains the session description that appears on the menu display (for example, 'TSO SYSTEM A"). Add the DESC parameter to describe the application and clarify its use. Add the POOL parameter to assign the application to a virtual terminal pool. SINGLE application definitions require the POOL parameter. For instructions, see "Selecting

#### **Defining SINGLE Type Applications**

a virtual terminal pool" on page 25. Set MULTSESS=NO to indicate that this is not a MULTI type session. This parameter is required.

#### **Defining MULTI type applications**

To add a MULTI application, you can either modify an existing application definition or insert a new APPLDEF command. The basic command format for a MULTI session application is:

 APPLDEF sessionid

 DEST(destination)

 DESC(description)

 POOL(poolname)

 MULTSESS=YES

**Note:** Most application definitions provided in KLSCAPLS contain more parameters than previously listed. At this stage of configuration, you need not concern yourself with the additional parameters. In -RHILEV-.RLSCMDS(KLSCAPLS), specify a sessionid parameter to identify the application (for example, TSOA). The session ID parameter is required and can be up to 8 characters long. Specify the DEST parameter to designate the VTAM network destination (APPLID). This parameter is required. DESC contains the session description that appears on the menu display (for example, "TSO SYSTEM A"). Add the DESC parameter to describe the application and clarify its use. Add the POOL parameter to assign the application to a virtual terminal pool. Both SINGLE and MULTI application definitions require the POOL parameter. For instructions, see "Selecting a virtual terminal pool" on page 25. Set MULTSESS=YES to indicate that these are MULTI type sessions. This parameter is required.

#### **Activating an APPLDEF**

Any modifications made to member KLGCAPLS or KLSCAPLS in your commands library will not become effective until the next time that this CLIST is executed. To initialize your new application definitions, do *one* of the following:

- Recycle the CL/SuperSession address space.
- Log on to the CL/SuperSession CUA operator facility through the Main Menu and issue one the following commands:

#### **KLGCAPLS**

or

#### **KLSCAPLS**

Alternately,

Issue one of the following commands from the z/OS system console:

F kls, KLGCAPLS

or

F kls, KLSCAPLS

where kls is the name of the CL/SuperSession started task.

**Note:** The command you issue depends on the member you modified. When you issue the KLGCAPLS or KLSCAPLS commands, the appropriate CLISTs are executed and the application definitions are updated. If you are modifying an APPLDEF using the same sessionid, the session must be removed and redefined.

## Specifying session types with Session Profiles

When defining sessions with the profile administration function, the type is always MULTI. For more information, refer to Chapter 6, "Using administrator functions," on page 37.

## Managing GLOBAL and Group session profiles

Sessions can be defined in session profiles. Session that are defined by using the APPDLEF command can also be modified in session profiles. There is one GLOBAL Session Profile, optionally one or more Group session profiles, and as many USER session profiles as there are users who have modified their own session definitions.

Sessions that are defined in the GLOBAL Session Profile are available to all users. Sessions that are defined in a Group session profile are available to all users in a group.

#### **GLOBAL** sessions

To add, delete, or modify a session at the GLOBAL level, you need to complete the following steps.

- 1. From the Profile Selection Menu, type a slash (/) next to **View GLOBAL profile** and press **Enter**. The Profile Summary menu appears. For more information, see Chapter 6, "Using administrator functions," on page 37.
- 2. Type s (Select for Detail) next to the GLOBAL profile and press Enter.
- 3. Type a slash (/) next to **Sessions** on the Update GLOBAL Profile menu and press **Enter**. The Update GLOBAL Session Profile menu appears.
- 4. Add sessions or delete, modify, block or unlock the existing sessions.

For more information, see Chapter 6, "Using administrator functions," on page 37.

#### Group sessions

The process for managing a Group profile is similar to that of GLOBAL Session Profile.

To add, delete, or modify a session at a Group level, you need to complete the following steps.

- 1. From the Profile Selection Menu, type a slash (/) next to **View group profile** and press **Enter**. The Profile Summary menu appears. For more information, see Chapter 6, "Using administrator functions," on page 37.
- 2. Type **s** (Select for Detail) next to the Group profile and press **Enter**.
- 3. Type a slash (/) next to **Sessions** on the Update Group Profile menu and press **Enter**. The Update Group Session Profile menu appears.
- 4. Add, delete, or modify a session at a Group level as you need.

**Note:** To access an existing Group profile, type **s** next to it. To create a new Group profile type **a** to create from scratch or **c** to clone an existing Group profile.

In order for a Group profile to have any relevance, users need to be assigned to them.

#### Managing GLOBAL and Group session profiles

Administrators can add a user to a Group profile by updating the "Group profile name" in the user's COMMON profile segment. For more information, see Chapter 6, "Using administrator functions," on page 37.

## Selecting a virtual terminal pool

Because a physical terminal is allowed only one session at a time, CL/SuperSession creates *virtual terminals*. Virtual terminals simulate physical terminals for sessions between users and applications, but each virtual terminal can support many sessions on behalf of many users, and each user can have sessions on more than one virtual terminal.

A collection of virtual terminals (VTAM APPLs) is called a *virtual terminal pool*. With virtual terminal pools, you can:

- · Specify session characteristics
- Support virtual terminal sharing to make the best possible use of system and network resources
- Select a virtual terminal defined to the application

You need to specify a virtual terminal pool in your APPLDEF command if you are defining a SINGLE or MULTI type session.

The POOL parameter of the APPLDEF command associates an application definition with a virtual terminal pool. If you do not specify the POOL parameter in the APPLDEF command, then the session is defined as a PASS type session. As a result, terminal control is passed directly to the destination application. The CL/SuperSession is no longer in control of the session.

The following table is an example of APPLDEF pool definitions as defined in member KLS\$VSMS of -THILEV-.SKLSCMDS.

Table 5. APPLDEF POOL Values

Type of Application	Pool
CUA operator facility	VIRTPARS
TSO	TSOLGNHR
TSO with CS V1.13 and above	TSOESA
CICS with Autoinstall	VIRT3270
CICS without Autoinstall	&DEFPOOL
NetView® or NCCF	VIRTPASS
IMS	&DEFPOOL
IIN	IINPOOL
OMEGAMON®	VIRT3270
HCF	HCFPOOL
VM	VIRT3270
VM/VSCS	VIRT3270
CA-IDMS/DC	VIRT3270
CA-ROSCOE	VIRT3270
Most other applications	VIRT3270

#### Selecting a virtual terminal pool

For example, to define a SINGLE TSO application named TSOA, you would use the pool named **TSOLGNHR**. Your APPLDEF command might look like this:

```
APPLDEF TSOA -
DEST(your_network_name_for_TSO) -
DESC('TSO SYSTEM A') -
POOL(TSOLGNHR) -
MULTSESS=NO
```

## Virtual terminal pool sizes

The virtual terminal pools in CL/SuperSession by default may not contain enough virtual terminals for your needs. The following table lists the default pool sizes. You may need to increase the number of terminals to accommodate the users on your system. Be sure to add the corresponding virtual terminals to your VTAM definitions.

Table 6. Virtual Terminal Pool Default Sizes.

Application	Pool	Size
VTPOPER (CL/ SuperSession Engine operator facility)	VIRTPARS	Contains 1 terminal, enough for any application that can handle parallel sessions.
TSO	TSOESA	Contains 10 terminals, enough to handle at least 200 TSO users. The number of terminals should be 3% to 5% of the active user base, or enough terminals to support concurrent session establishment in any 1-second period.
CICS with Autoinstall	VIRT3270	Contains 60 terminals and can support a maximum of 60 concurrent users in any one CICS region.
CICS without Autoinstall	&DEFPOOL	Resolves to Model 2, 3, 4, 5, or 9 (according to the physical terminal characteristics) when the user logs on. Each pool contains 10 terminals. Each can support a maximum of 10 concurrent sessions for any CICS region. If you are not using specific node assignments, make each pool large enough to handle the maximum number of concurrent users per region. If you are using specific node assignments, assign a virtual terminal for each user.
NetView or NCCF	VIRTPASS	Contains 60 terminals and can support a maximum of 60 concurrent sessions.
IMS	&DEFPOOL	Resolves to Model 2, 3, 4, 5, or 9 (according to the physical terminal characteristics) when the user logs on. Each pool contains 10 terminals and supports a maximum of 10 concurrent sessions for any IMS region. If you are not using specific node assignments, make each pool large enough to handle the maximum number of concurrent users per region. If you are using specific node assignments, assign a virtual terminal for each user.

Table 6. Virtual Terminal Pool Default Sizes (continued).

Application	Pool	Size
IIN	IINPOOL	IINPOOL comes configured with 10 terminals and can support 10 sessions. You must make certain that it is large enough to handle the maximum number of concurrent active sessions. IINPOOL is used for any application that might pass the session more than once. Do not overlap this pool with any other pools. Because virtual terminals supporting a session from this pool cannot support other sessions during the IIN session.
OMEGAMON	VIRT3270	Contains 60 terminals and can support a maximum of 60 concurrent users in any one application.
HCF	HCFPOOL	Contains 60 terminals and can support a maximum of 60 concurrent users in any one application.
VM	VIRT3270	Contains 60 terminals and can support a maximum of 60 concurrent users in any one application.
VM/VSCS	VIRT3270	Contains 60 terminals and can support a maximum of 60 concurrent users in any one application.
CA-IDMS/DC	VIRT3270	Contains 60 terminals and can support a maximum of 60 concurrent users in any one application.
CA-ROSCOE	VIRT3270	Contains 60 terminals and can support a maximum of 60 concurrent users in any one application.
Other Applications	VIRT3270	Contains 60 terminals and can support a maximum of 60 concurrent users in any one application.

For a more detailed discussion of virtual terminals and virtual terminal pools, refer to the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

**Note:** A pool of dedicated terminals is required to take advantage of the TSO LOGONHERE functionality provided in z/OS.

# Increasing the size of a virtual terminal pool

Virtual terminal pools are defined to the following:

- 1. CL/SuperSession with the VSM command.
- 2. The network in SYS1.VTAMLST application major nodes.

**Note:** The virtual terminal in the pool is defined in SYS1.VTAMLST application major nodes.

**3**. CICS or IMS, if applicable, in their terminal gens. These definitions must be synchronized to avoid online operational problems.

To add to a virtual terminal pool, do the following:

1. Add the new terminals to the network definition in SYS1.VTAMLST(*newname*). For example:

termname APPL AUTH=(ACQ,NVPACE), EAS=1,ACBNAME=termname
For virtual terminal applications that support parallel sessions, specify
PARSESS=YES instead of EAS=1.

#### Increasing the size of a virtual terminal pool

2. To add terminals, you can either modify the VSM command in member KLS\$VSMS of your commands library or issue the command through the operator facility.

For example, if the terminal definitions for the pool TSOLGNHR are

#### VSM DEFINE TSOLGNHR KLST0001 THROUGH (10)

and you want to add 10 terminals, change the VSM DEFINE statement in KLS\$VSMS to:

#### VSM DEFINE TSOLGNHR KLST0001 THROUGH (20)

Restart CL/SuperSession to initialize your new virtual terminal pool definitions.

To add virtual terminals dynamically, issue this command through the operator facility:

#### VSM DEFINE poolname termname THROUGH(nnn)

When you dynamically define terminals to the same terminal pool, you are *adding on* to the terminals defined by KLS\$VSMS at startup, not replacing the existing definition.

**Note:** When you issue the VSM DEFINE command dynamically, your new terminal definitions are temporary; they are not saved when you shut down and restart CL/SuperSession. If you want to save your new definitions, you must change the KLS\$VSMS member in your commands library.

**3**. Add a definition for each virtual terminal to CICS and/or IMS. Examples of KLSCTCT and KLGIMSGN definitions are provided in -THILEV-.SKLSSAMP.

## Restricting user access to applications

CL/SuperSession provides *authorized application lists* (APPLISTs) to help you restrict user access to applications.

All APPLDEF defined selections are kept in the Master Application List. You can restrict users' access to a subset of the master list by defining static APPLISTs (which are predefined sets of APPLDEF session IDs), and assigning them to users or groups of users. A user with no APPLIST assigned or an invalid APPLIST uses the Master Application List.

Static application lists are created by issuing an APPLIST command that names a member or set of members in your initialization library that defines the contents of the list.

*Dynamic application lists* are created by querying the security system for each entry in the user's static list (or the Master Application List, if no static list is assigned) and removing selections to which the security system rejects access.

# Using static application lists

When you use only the APPLDEF command to define applications or session profile tables, all applications appear on the Main Menu and are available to all users.

Optionally, you can associate an authorized application list with a user or group of users to create a subset of applications and restrict user access.

#### Using static application lists

When you create an authorized application list, only those applications that are identified within the list display on the Main Menu and are available to the user. You can include any number of applications in an application list.

In addition, you can use application lists to associate a broadcast message group with a user or a group of users with common network notification requirements.

## Creating a static application list

To create and invoke a static application list, perform the following steps. You can also find some examples as follows.

- 1. Create members that contain the lists of applications to include in or exclude from the actual application list.
- 2. Place the members in -RHILEV-.RLSPARM.
- 3. Define the APPLIST commands in -RHILEV-.RLSCMDS that point to the members you created in -RHILEV-.RLSPARM. For more information, refer to the APPLIST command in the *IBM CL/SuperSession Operator's Guide*.
- 4. Assign application lists to users through the user profile screens, as discussed in "Assigning static application lists" on page 32.

**Note:** An application list definition created by procedures described in this subsection can be added dynamically. To add the application list definition dynamically, issue the APPLIST command through the operator facility.

For example:

#### APPLIST LIST1 ID=PROGAPP

However, if you issue the APPLIST command dynamically, your new application list definition is temporary; it is not saved when you shut down and restart CL/SuperSession. To save your new definition, you must change the KLGCAPLT member in your commands library and then initialize the change through the operator facility.

#### Example 1: A simple application list

The following example creates an application list (PROGAPP) that contains two applications, TSOA and VM, and assigns the application list to the application programmers.

1. You want to include the applications TSOA and VM in your application list. Check that these applications are defined by the APPLDEF command in member KLSCAPLS or KLGCAPLS of your runtime commands library. The command definitions look something like this:

```
APPLDEF TSOA -
DEST(TSOA) -
DESC('TSO SYSTEM A') -
POOL(TSOLGNHR)

APPLDEF VM -
DEST(VM) -
DESC('VM SYSTEM A') -
POOL(VIRT3270)
```

2. Create a member in -RHILEV-.RLSPARM that lists the applications you want to include in the application list. The application names listed in the member are APPLDEF command session IDs.

The member list for this example looks like this:

#### Creating a static application list

TS0A

VM

In this example, the member name is LIST1.

3. Add the following command to member KLGCAPLT in -RHILEV-.RLSCMDS.

#### APPLIST LIST1 ID=PROGAPP

The **ID**= parameter points to the APPLDEF entries in LIST1. Users with an application list ID of PROGAPP specified in their common profile would get the applications included in LIST1.

To initialize your new application list definition, issue the following command through the operator facility:

#### **KLGCAPLT**

4. Assign the application list to users. For more information, see "Assigning static application lists" on page 32.

#### Example 2: The wildcard character

The following example creates an application list (PROGSYS) that contains three members and assigns the application list to the systems programmers.

- You want to include the VM application and all applications that begin with the characters TSO, CICS, and IMS. Check that these applications are defined by the APPLDEF command in member KLSCAPLS or KLGCAPLS of your commands library.
- 2. Create the members LIST1, LIST2, and LIST3 in -RHILEV-.RLSPARM. Each member will contain the applications you want to include in the APPLIST command. For example:

LIST1

'TS0\*'

VM

LIST2

'CICS\*'

LIST3

'IMS\*'

The wildcard character (\*) includes in the application list all definitions with session IDs beginning with TSO, CICS, and IMS.

3. Add the following command to member KLGCAPLT in -RHILEV-.RLSCMDS:

#### APPLIST LIST1 LIST2 LIST3 ID=PROGSYS

The **ID=** parameter points to the APPLDEF entries in LIST1, LIST2, and LIST3. Users with an application list ID of PROGSYS specified in their common profile would get the applications included in those three lists (that is, the APPLDEF VM and all APPLDEFs starting with the character strings TSO, CICS, and IMS). To initialize your new application list, issue the following command through

#### **KLGCAPLT**

the operator facility:

4. Assign the application list to users. For more information, see "Assigning static application lists" on page 32.

#### Example 3: The GROUP parameter for separate menu panels

## Creating a static application list

You can also use the GROUP parameter to help you construct menus. All the authorized applications that share the same group number display together on each menu panel.

For example, if you have CL/SuperSession, you might want to list SINGLE applications on one menu panel, and MULTI applications on another.

- 1. You want TSO, IMS, and CICS to be SINGLE applications, and NetView and PROFS<sup>™</sup> to be MULTI applications. That is:
  - Member KLSCAPLS of -THILEV-.SKLSCMDS includes APPLDEF commands that define TSO, IMS, and CICS as SINGLE applications with GROUP=100.
  - Member KLGCAPLS of -THILEV-.SKLSCMDS includes APPLDEF commands that define NetView and PROFS as applications with GROUP=200 and MULTSESS=YES.
- 2. In -RHILEV-.RLSPARM, create a member named LIST1. In LIST1, list the authorized applications by group, as follows:

```
GROUP=100
TSO
IMS
CICS
GROUP=200
NETVIEW
PROFS
```

3. Add the following command to -RHILEV-.RLSCMDS(KLGCAPLT):

#### APPLIST LIST1

To initialize your new application list definition, issue the following command through the operator facility:

#### KLGCAPLT

4. Assign the application list to users. For more information, see "Assigning static application lists" on page 32.

#### Example 4: TYPE=EXCLUDE

You can create a member that contains only the applications you want to exclude from a group of users. This may be a more efficient way to use authorized application lists when you want to allow access to many applications and restrict access for only a few applications.

This example creates a list that contains only applications to which you do *not* want to give access.

- 1. Verify that the applications you want to exclude are defined with the APPLDEF command in member KLGCAPLS or KLGCAPLS in -RHILEV-.RLSCMDS.
- 2. Create member LIST1 in -RHILEV-.RLSPARM. For this example, LIST1 contains the following:

```
NETVIEW
OMEGAMON
VTPOPER
```

**3**. To define the application list, add the APPLIST command with the TYPE=EXCLUDE parameter to member KLGCAPLT in your commands library, as follows:

#### APPLIST LIST1 ID=TECHDOC TYPE=EXCLUDE

This list gives Technical Documentation (TECHDOC) access to all defined applications except NetView, OMEGAMON, and the operator facility (VTPOPER).

## Creating a static application list

To initialize your new application list definition, issue the following command through the operator facility:

#### **KLGCAPLT**

4. Assign the application list to users. For more information, see "Assigning static application lists."

# Assigning static application lists

You can define a local application list for a specific user, define an application list for a group of users, or define a global default application list for all users. There are several ways to implement a static application list:

- Use the menu-driven administrator functions to assign an APPLIST to a specific user, a group of users, or as a default for all users. Summary step-by-step instructions for assigning applications are provided in ""Assigning a default static application list." For a more complete discussion of assigning applications to users through the administrator panels, see Chapter 6, "Using administrator functions," on page 37.
- Specify APPLIST in the HOSTGATE configuration, -RHILEV-.RLSPARM(KLGICFG1). This will allow a hard coded APPLIST definition or a panel exit. You can then specify the dialog or exit routine to resolve the element name. For further information on assigning APPLISTS through dialogs or exits, see "Configuration" in the IBM CL/SuperSession for z/OS V2.1 Customization Guide.

# Assigning a default static application list

After you build a static application list as discussed in "Assigning Static Application Lists," assign the application list to the GLOBAL Profile as follows:

- 1. From the Main Menu, press **F10**. The cursor will move to the action bar.
- 2. Type **m** and press **Enter**. The Administrator Menu appears.
- 3. The cursor is next to Profile administration. Press Enter. The Profile Selection Menu appears.
- 4. Type s(Start) next to View GLOBAL profile, and press Enter. The Update GLOBAL Profile window appears.
- 5. Type a slash (/) next to **Common** and press **Enter**. The GLOBAL common Profile segment window appears.
- 6. Move to Application List ID input field, fill in the APPLIST name, and press
- 7. Press F12 repeatedly to return to the Main Menu.

# Assigning application lists to specific users

To assign an application list to a specific user, do the following:

- 1. From the Main Menu, press **F10**. The cursor will move to the action bar.
- 2. Type **m** and press **Enter**. The Administrator Menu appears.
- 3. The cursor is next to Profile administration. Press Enter. The Profile Selection Menu appears.
- 4. The cursor is next to View user profiles. Type s(Start). The cursor moves to **Mask:**. Type the user ID and press **Enter**. The Update User Profile window appears.
- 5. Type a slash (/) next to **Common** and press **Enter**. The User Common Profile segment window appears.

## Assigning application lists to specific users

- 6. Tab to the **Application List ID** field, fill in the user's APPLIST name, and press **Enter**.
- 7. Press F12 repeatedly to return to the Main Menu.

# Using dynamic application lists

A dynamic application list uses your resident security system to retrieve and build an application list. As each user logs on, CL/SuperSession queries the security system, excludes all unauthorized applications, and builds the user's menu.

The advantage of using dynamic application lists to restrict user access to applications is that these lists have little or no impact on existing security administration procedures. The security system continues to serve as the central definition point for all users of the system.

This section explains how to set up dynamic application lists through RACF, CA-ACF2, and CA-TOP SECRET.

### Notes®:

- 1. The session ID is the one- to-eight-character session name used by CL/SuperSession to access the application.
- 2. The applid is the VTAM network name for an application.
- **3**. The session IDs are either defined by APPLDEF commands or by session profiles.
- 4. The resource validation performed by your External Security Manger can be against the session ID or the application ID or both. The GLOBAL.COMMON.PROFILE setting:

Resource validation...... S | A | B controls which resource is used.

## With RACF

Modify your configuration as follows.

1. Add the following entry to -RHILEV-.RLSPARM(KLVINNAM):

#### CLASSES=dynap1st

where *dynaplst* is a member in -RHILEV-.RLSPARM.

2. Define *dynaplst* in -RHILEV.RLSPARM to contain:

VGWAPLST EXTERNAL=APPL

**Note:** Use the IBM supplied resource class of APPL, as in the previous example or modify your site's resource class with the same definition.

Your RACF administrator must also make the following changes to RACF:

 Issue the RDEFINE command using APPL as the class. The resource names are applied and/or session IDs. For more information, see "Session types" on page 21. The session ID corresponds to the ENTITY parameter on the RACHECK (FRACHECK) macro.

The following example gives universal access to the class APPL:

#### READY

RDEFINE APPL sessionid UACC(READ)

**Note:** The *sessionid* value must be in uppercase.

Issue the RDEFINE command for each application that is defined within CL/SuperSession.

The following RACF commands illustrate how to set up more restricted access to an application.

**READY** 

RDEFINE APPL sessionid UACC(NONE)
PERMIT sessionid CLASS(APPL) ID(userid)

2. Issue the following command:

READY

SETROPTS CLASSACT (APPL)

If, at any time, definitions in RACF are modified, added, or deleted, they can be reflected immediately by issuing a NAM RACLIST command from the operator facility. For more information on the NAM RACLIST command, see the *CL/SuperSession Operator's Guide*.

**Note:** Previous references to session ID can also include or be replaced by **VTAM network name (APPLID)**. Refer to Chapter 6, "Using administrator functions," on page 37.

### Managing applications based on groups of users

You can use the RACF CONNECT command to manage applications based on user groups as follows:

- 1. Define the ICHERCDE macro as described in the chapter about Network Access Manager in the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*. This example uses a class named \$SESSMAN.
- 2. Define a group to RACF:

Addgroup GROUP1 SUPGROUP(SUPGRPNM)

3. Issue RACF PERMIT commands to permit the application to the group, rather than to the user:

PErmit TSO CLASS(\$SESSMAN) ID(GROUP1) ACC(READ)
PErmit HELPDESK CLASS(\$SESSMAN) ID(GROUP1) ACC(READ)

4. Connect the user to the group:

CONNECT userid GROUP(GROUP1)

**Note:** Be sure to issue the following commands to get a new copy of resource list: **SETROPTS RACLIST (\$SESSMAN) REFRESH NAM RACLIST** 

## With CA-ACF2

Modify your configuration as follows:

1. Add the following entry to -RHILEV-.RLSPARM(KLVINNAM):

CLASSES=dynap1st

where *dynaplst* is a member in -RHILEV-.RLSPARM.

2. Define dynaplst in -RHILEV-.RLSPARM to contain

VGWAPLST EXTERNAL=APL

where EXTERNAL=APL refers to a resource class of R-APL.

Your ACF2 administrator must also make the following changes to ACF2:

1. Define R-APL in ACF2 and associate it with ACF2 resource names.

These ACF2 resource names are the session IDs that you defined in the APPLDEF command. For more information, see "Session types" on page 21.

2. Determine the access rights for each session ID by a generalized resource rule in ACF2.

Your ACF2 administrator can use the following example as a guide to setting the generalized resource rule with application names. The example uses TSOA as the application name.

- a. From the TSO READY prompt type ACF, and press Enter.
- b. At the ACF prompt, type **SET RESOURCE(APL)**, and press **Enter**.
- c. At RESOURCE, type COMPILE \*, and press Enter.
- d. At the ACF COMPILER ENTERED prompt, type:
  - . \$KEY(TSOA) TYPE(APL)
  - . UID(your userids) ALLOW
  - . /\*

Press Enter.

e. At the RESOURCE prompt, type **STORE**, and press **Enter**.

The rule shown here defines only one application, TSOA. To specify other applications, add more **\$KEY(sessionid) TYPE(APL)** statements to this rule.

**Note:** Previous references to session ID can also include or be replaced by **VTAM network name (APPLID)**. Refer to Chapter 6, "Using administrator functions," on page 37.

# With CA-TOP SECRET

For all versions of CA-TOP SECRET, member KLSTSNEV in SKLSSAMP provides enhanced messaging. This allows unedited CA-TOP SECRET messages to be displayed to the user.

- 1. Copy dialog KLSVSSEC from -THILEV-.SKLSSAMP to -RHILEV-.RLSPNLS.
- 2. Use the dialog to display the error messages.

The steps you take to set up a dynamic application list through CA-TOP SECRET will vary depending on the version of CA-TOP SECRET installed. For all versions, the first 2 steps are the same. Thereafter, one procedure is followed to set up dynamic application lists for CA-TOP SECRET Versions 4.1 and earlier. Another procedure is followed to set up dynamic application lists for CA-TOP SECRET Version 4.2 and later.

#### **Version-Independent Configuration**

The following two preliminary configuration steps should be taken by anyone setting up dynamic application lists through CA-TOP SECRET.

1. Add the following entry in -RHILEV-.RLSPARM(KLVINNAM)

#### CLASSES=dynap1st

where *dynaplst* is a member in -RHILEV-.RLSPARM.

2. Define dynaplst in -RHILEV-.RLSPARM to contain

## VGWAPLST EXTERNAL=external\_class

where external\_class is the CA-TOP SECRET FACILITY name.

#### **CA-TOP SECRET Versions 4.1 and Earlier Configuration**

### With CA-TOP SECRET

The following steps are taken next for CA-TOP SECRET Version 4.1 and earlier:

- In each user's CA-TOP SECRET access ID, specify access to the FACILITY named task.
- 2. Allow your users access to each session ID through the Limited Command Facility (LCF) under the FACILITY, as in the following example

```
TSS ADD(userid) CMD(task, (sessionid, ...))
```

where task is the name of the FACILITY. Be sure to set MODE=FAIL.

**Note:** Previous references to session ID can also include or be replaced by **VTAM network name (APPLID)**. Refer to Chapter 6, "Using administrator functions," on page 37.

## **CA-TOP SECRET Versions 4.2 and Later Configuration**

CA-TOP SECRET 4.2 modified the technique that CL/SuperSession uses for the Dynamic APPLIST Facility. A new Resource Definition Table (RDT) was introduced along with stricter checking of the CLASS parameter on FRACHECK macros.

Perform the following steps to use dynamic application lists with CA-TOP SECRET Version 4.2 or later.

- 1. Review the discussion of RDT in the CA-TOP SECRET Command Function Guide.
- The following CA-TOP SECRET commands can be used to define an RDT class TSS ADD(RDT) RESCLASS(external\_class) RESCODE(id)

where <code>external\_class</code> is the class you specified in the "EXTERNAL=ext\_class" statement that is coded in the DYNAPLST member you created in -RHILEV-.RLSPARM. The RESCODE specification is a site-specific identifier for the RESCLASS defined in the RDT that provides a unique RDT entry identifier within that facility.

- 3. Set the violation threshold (VTHRESH) to NOTIFY.
- 4. Assuming **KLV** is specified as the external\_class, specify definitions similar to the following example:

```
TSS ADD(RDT) RESCLASS(KLV) RESCODE(unique_id)
TSS ADD(dept_acid) KLV(sess_id1,sess_id2,...,sess_idx)
TSS ADD(userid) KLV(sess_id1,sess_id2,...,sess_idx)
TSS PER(userid) KLV(sess_id1,sess_id2,...,sess_idx)
```

Optionally, a DEFPROT command can be issued to add additional security at other appropriate levels such as at the dataset, linklib, and terminal levels.

**Note:** Previous references to session ID can also include or be replaced by **VTAM network name (APPLID)**. Refer to Chapter 6, "Using administrator functions," on page 37.

# Chapter 6. Using administrator functions

The procedures that are described in this chapter can be performed only by a user with administrator authority.

## Introduction

As the CL/SuperSession administrator, you will set system authorization and control parameters as part of product configuration. These system parameters are set through profiles. You can also assign triggers and applications through profiles. For information on using triggers, see the *IBM CL/SuperSession for z/OS V2.1 User's Guide*.

Profile values are assigned and changed through administrator functions. You perform administrator functions through the Administrator Menu that displays when you select **Admin** on the Main Menu action bar. Administrator functions are used to:

- Set, update, and review profile parameters
- · Maintain logmode definitions

This chapter explains how to use the administrator functions. All administrator functions require that you have administrator authority. If your Main Menu action bar does not include the keyword choice **Admin**, you cannot use the functions described here.

The following terms are essential to understanding the rest of this chapter:

- The *action bar* is the top line on a panel; it contains the keyword choices you can select.
- Selection of any action bar choice results in display of a *pull-down menu*.
- The *home position* is the first data input character position on the screen. When a panel displays, the cursor is in the home position.

For instructions on making menu selections and navigating through the other panels, see the *IBM CL/SuperSession for z/OS V2.1 User's Guide*.

# Assigning administrator authority

There are two ways to assign administrator (ADMIN) authority to a user.

- The first method that is described in the following can be used to assign ADMIN authority to any user.
- The other method can be used only for users who are not yet defined to CL/SuperSession.

**Note:** The user doing the assigning must have ADMIN authority in CL/SuperSession.

## All users

To assign the ADMIN function to any user, do the following:

- 1. Select M from the action bar. The Administrator Menu appears.
- 2. Select option 1 (Profile administration). The Profile Selection Menu appears.

- 3. Select **View user profiles (Mask:\*\_\_\_)**. In the Mask field, type the Userid you want to assign the ADMIN function to and press **Enter**. The Update User Profile panel appears.
- 4. Select **Common** from the profile segments. The User Common Profile Segment panel appears.
- 5. Change Administrator authority to Y and press Enter.
- 6. Press **F12** repeatedly to exit the ADMIN function.

  The next time the user logs on, the ADMIN action bar choice will appear on the user's Main Menu.

# **Undefined users only**

If the user to whom you are assigning ADMIN authority is not yet defined to CL/SuperSession, you can issue the following NAM commands from the operator facility panel:

NAM SET userid PASSWORD=password NAM SET userid VSPADMIN:Y

where *userid* is the ID of the user to whom you are assigning authority, and *password* is that user's password.

These instructions can also be issued from the z/OS console as Modify commands:

F kls,NAM SET userid PASSWORD=password F kls,NAM SET userid VSPADMIN:Y

When the user logs on to CL/SuperSession for the first time, the profile will be built first from the NAM, then from the global/group profiles. After the profile is built, the NAM is no longer used.

# **About profiles**

CL/SuperSession implements three types of profiles: global, group, and user. The three types of profiles form a hierarchy.

The GLOBAL Profile is the highest level and provides the broadest authorization. There is only one GLOBAL Profile. When your system is installed, a default GLOBAL Profile is created. You can then update it. In general, the default GLOBAL Profile applies to all users at your installation unless overridden by group or user profiles. The examples in this chapter use GLOBAL Profile authorization.

You create group and user profiles so that you can grant authorities and set parameters that apply only to certain groups or individual users. You can create as many group and user profiles as you want. In general, system authorization and control parameters that are assigned in the GLOBAL Profile are overridden by those set in a group profile. Likewise, parameters set in a group profile can be overridden by settings in a user profile.

Be aware of the following system features when you use the administrator functions:

- Changes made to the GLOBAL Profile, or to group or user profiles, will not take effect until users issue the RESET command, or log off and log on again.
- The initial dialogs that are specified in the global, group, and user profiles are executed in that sequence when the user logs on to CL/SuperSession.

# Creating and modifying profiles

This section explains how to invoke the administrator function, change the default GLOBAL Profile, and create group and user profiles.

Remember the following points:

- The GLOBAL Profile was assigned default values during installation. If those defaults are appropriate for all users, you do not need to change the values.
- You can use the Help (F1) key to get more information. Pressing the Help key while the cursor is in a data input field produces field-level help. Pressing the Help key while the cursor is not in a data input field produces general help information about the entire panel.

Before you begin, be sure that the Main Menu is displayed and that the cursor is positioned in the home position on the action bar. The home position is the first character position on the line marked by the first underscore character. Figure 2 illustrates a CL/SuperSession Main Menu. The session entries on your Main Menu will differ from those listed in the example. In the figure, an arrow points to the action bar home position.

```
HOME POSITION
   __ Actions Options Commands Features Admin Help
                 CL/SuperSession Main Menu More: +
Select sessions with a "/" or an action code.
                                     Type Status
 SessionID Description
_ TSOA System A TSO System A IMS
                                       MULTI
_ IMSA
                                       MULTI
MULTI
                                       MULTI
                                       MULTI
                                       MULTI
_ ENGINE Operator Facility
                                       MULTI
                                                  SYSA/KLST0001
Command ===>
Enter F1=Help F3=Exit F5=Refresh F8=Fwd F9=Retrieve F10=Action
```

Figure 2. CL/SuperSession Main Menu

The CL/SuperSession Main Menu displays if the user is not defined as a CL/SuperSession user.

# Invoking the administrator function

With the cursor in the home position, type **m** and then press **Enter**. The Administrator Menu appears, as shown in Figure 3 on page 40.

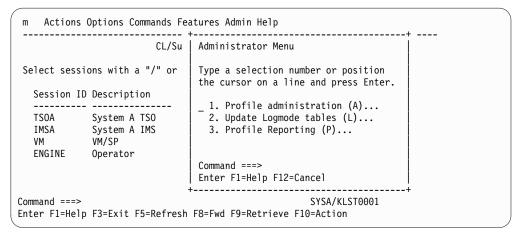


Figure 3. Administrator Menu

While the Administrator Menu is displayed, select **Profile Administration**. The Profile Selection Menu displays, as shown in Figure 4.

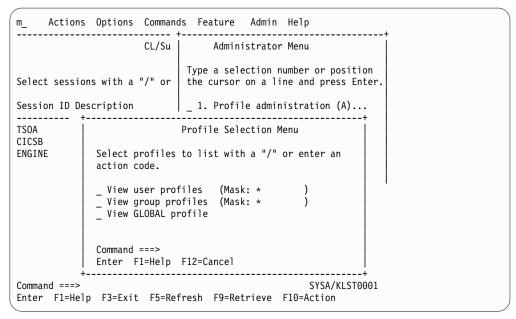


Figure 4. Profile Selection Menu

With the cursor to the left of **View GLOBAL profile**, type **s**(Select) and press **Enter**. The Update GLOBAL Profile window displays, as shown in Figure 5 on page 41.

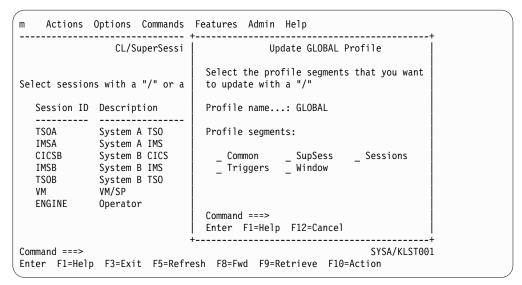


Figure 5. Update GLOBAL Profile Window

The word GLOBAL appears as the profile name. This name cannot be changed.

The menu lists a number of *profile segments*. The information for a profile is contained in profile segments. Each profile segment contains access control parameters specific to its segment type, as follows:

Common	Review and or update common values.
SupSess	Sets CL/SuperSession values.
Sessions	Sets the sessions defined through this profile.
Triggers	Sets the triggers defined through this profile.
Window	Sets the window control options for this profile.

Select the profile segments you want to update by entering / next to the segment name. From this point on, the activity you perform depends on the profile segments you choose.

The remainder of this subsection describes the pop-up windows that appear for each profile segment, and the way to complete each window. Each profile segment is described in a separate subsection in the order (from top left to right and down) of display in the Update Global Profile window.

To process each of the pop-up windows, do the following:

- Change existing values by typing over them.
- Fill in blank fields by typing values or by using the Prompt (F4) key.
- Save your changes by pressing **Enter**. The window for the next selected profile segment then displays.

If you have changed any selected segment, the following message displays after you process your last selected segment:

Profile "GLOBAL" has been updated.

If you make no changes, the message does not appear.

# Updating common profile options

If you selected **Common** on the Update GLOBAL Profile window, the GLOBAL Common Profile Segment window displays.

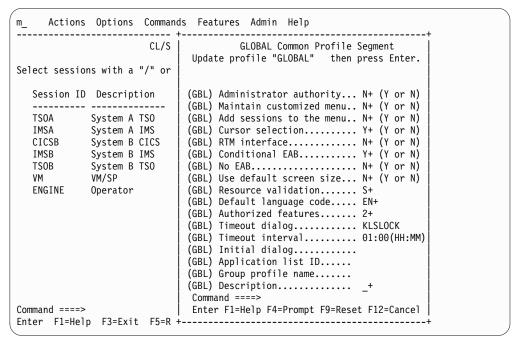


Figure 6. GLOBAL Common Profile Segment Window

Figure 6 shows the initial global default values for the common profile segment. The 3-letter code appearing in parentheses to the left of each description field indicates the source of the definition. Because you are working on the GLOBAL Profile, **GBL**(for global) is the only code that appears.

The global common profile parameters have the following values:

### Administrator authority (Y or N)

Y allows profile users to access and use the CL/SuperSession product administration interface. (Note: HelpDesk administration and operation is documented in Chapter 10, "The HelpDesk," on page 115. If this authorization is not granted, the **ADMIN** keyword choice will not appear on the Main Menu action bar.

## Maintain customized menu (Y or N)

Y allows users to maintain their own personalized menus. If this authorization is granted, users can do any of the following:

- Change the order of sessions on the menu.
- Delete sessions from the menu.
- Modify session parameters for sessions on the menu.
- · Add sessions from the GLOBAL list.

The changes are saved during logoff, and the customized menu displays at the next logon.

#### Add sessions to the menu (Y or N)

This field specifies whether or not users can define new sessions to their menus. Users with this authority can add sessions that have not been defined in global or group profiles, or in authorized application lists.

## Cursor selection (Y or N)

Cursor selection allows you to select a session from the Main Menu using the cursor or an action code. When this option is set to Y, you can select a session by putting the cursor beside the session ID and pressing **Enter**.

When this option is set to N, you must type S next to the session ID and press **Enter**.

## RTM interface (Y or N)

Y specifies that the RTM interface will be invoked for users. For information on the RTM interface, see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

### Conditional EAB (Y or N)

If you specify Y, the Dialog Manager extended attribute buffer (EAB) is allocated only if the physical terminal supports one. This reduces panel storage requirements for non-EAB devices. With the default setting of N, an EAB is allocated for every panel, even if the terminal does not support EAB.

**Note:** This option affects Dialog Manager panels only; it does not affect 3270 processing of applications.

A setting of Y for **No EAB** overrides the setting for **Conditional EAB** and prevents EAB allocation for all terminals.

### No EAB (Y or N)

Y unconditionally suppresses allocation of a Dialog Manager extended attribute buffer (EAB) during panel construction.

This causes the Dialog Manager to avoid the use of extended datastream attributes (extended color, highlighting, and APL character set) in the panels it constructs. Panel storage requirements are reduced for all devices.

**Note:** This option affects Dialog Manager panels only; it does not affect 3270 processing of applications.

A setting of Y for **No EAB** overrides the setting for **Conditional EAB** and prevents EAB allocation for all terminals.

#### Use default screen size (Y or N)

Y causes panel construction to be guided by the default screen size parameters of the physical terminal. Set to N, panels are built for maximum screen size (normally the alternate screen size, rather than the default).

## Resource validation (S, A, or B)

Resource validation comes into effect only when dynamic application lists are implemented. The available resource validation options are:

Session (S)	ID when calling the security exit.
Applid (A)	Causes resource validation to use the application ID when calling the security exit.
Both (B)	Causes resource validation to occur for both session and application IDs when calling the security exit.

#### Default language code

This field is assigned a 2-character value representing the national language in which panel text and messages display. The default is EN (English).

You can enter the code directly or make a selection on the Language Option window and have the value placed in this field. The Language Option window appears if you press the F4 (Prompt) key while the cursor is in the **Default language code** field.

All the languages available to you are listed on the Language Option window. In Figure 7, English, French, German, French-Canadian, and Italian are available.

On the sample GLOBAL Common Profile Segment Window, EN (for English) was specified. Assume that you want to change the global default to French. Simply move the cursor to **French** and press **Enter**.

The GLOBAL Common Profile Segment Window will be displayed again, and the French national language code (FR) will be assigned to the **Default language code** field on the Common GLOBAL Profile window. The national language on the screen will change at the next logon or application selection.

You can use group and user profiles to assign specific languages to specific groups and users, and each user can also set a default language.

**Important:** Commands, command abbreviations, and action codes are translated to whatever default language you specify. For example, in English, you use the action code **s** to begin or resume a session from the main menu. However, in French, **s** signifies the action "Suppression de session," which deletes the session.

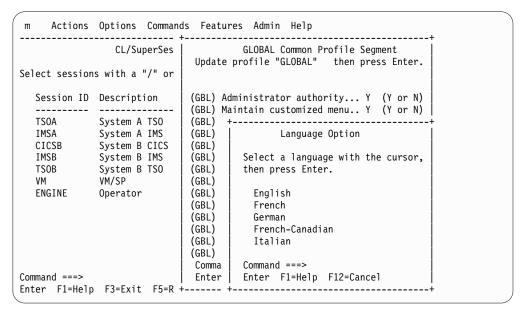


Figure 7. Language Option Window

#### Authorized features

Use this option to set the administrator-assigned features globally available to users. The number in the field indicates the number of features you have authorized for the GLOBAL Profile. The default is Cut and Paste and Send Message.

To select features, press the F4 (Prompt) key while the cursor is in the **Authorized features** field. The Update Features List window displays.

You can provide/prevent access to these features:

- · Cut and Paste
- Send Message
- · View Sessions

Refer to the *User's Guide* for complete explanations of these features.

An asterisk (\*) next to a feature indicates that the administrator has granted access to that feature. Figure 8 uses the defaults.

To add or delete access to a feature, type **a** or **d** next to the feature. The number shown on the GLOBAL Common Profile Segment window will change accordingly.

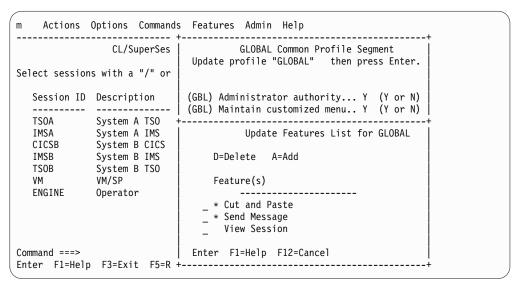


Figure 8. Update Features List Window

#### Timeout dialog

CL/SuperSession features an unattended terminal timeout capability, which prevents unauthorized access to computer resources. A timeout value determines the amount of time that a terminal may be idle before control is given to the dialog specified. A typical timeout dialog locks the terminal until the user enters a valid password. The dialog KLSLOCK (the default) is provided for this purpose.

You can also create or customize a dialog for handling timeouts. In that case, enter the name of your own timeout dialog in this field.

#### Timeout interval (HH:MM)

This field specifies the time interval (in the format *hh:mm*) that can pass before the timeout dialog identified in the previous control parameter (Timeout Dialog) takes control. If a timeout interval is not specified, no timeout occurs. The default is 00:15.

#### Initial dialog

This field identifies a customized dialog to be executed when users log on to CL/SuperSession. A separate panel permits the specification of an initial dialog for a subsequent virtual session logon. The named dialog performs additional initialization processing. There is no default.

**Note:** Customized dialogs are not supplied. You can create them by using the Structured Session Procedure Language (SSPL) described in the *Dialog Language Reference Manual*.

## Application list ID

This parameter controls the assignment of static application lists. If you define applications with APPLDEF commands, you may want to restrict users to a subset of those applications through authorized application lists. To do this, enter the name of an authorized static application list defined in an APPLIST command in this field. There is no default.

## Group profile name

This field is never assigned a value in the Global or Group common profile segments. It is used only when assigning *user* profile values (in the User Common Profile window).

### Description

An alphanumeric text string that typically identifies the profile. To enter a description, press the **F4** (Prompt) key while the cursor is in the **Description** field. A pop-up window displays, with space for you to enter an alphanumeric string up to 64 characters long. There is no default.

# **Updating CL/SuperSession Profile options**

If you have selected **SupSess** on the Update GLOBAL Profile window, the CL/SuperSession GLOBAL Profile Segment window illustrated in Figure 9 displays.

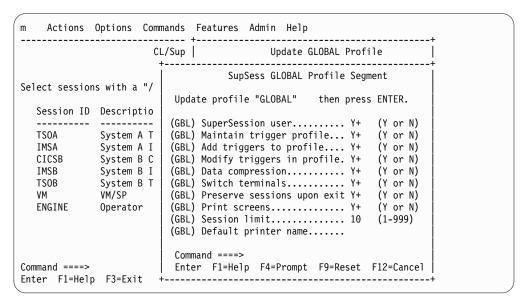


Figure 9. CL/SuperSession GLOBAL Profile Segment Window

Figure 9 shows the initial global default values for the CL/SuperSession profile segment. Each profile parameter is described below.

## SuperSession user (Y or N)

This field specifies whether or not users are authorized to maintain multiple concurrent virtual sessions. If this field is set to N, users will default to PASS and SINGLE type sessions only. To assign multi-session authority selectively to those who need it, use group or user profiles.

### Maintain trigger profile (Y or N)

This field specifies whether users have authority to save their changes to the trigger profile when they log off.

- Y Changes made to the trigger profile are permanent.
- N Changes made to the trigger profile are temporary.

They are preserved until one of the following happens:

- The user logs off with no active sessions (when Preserve sessions upon exit is set to Y).
- The user's CL/SuperSession session is transferred, with no active sessions, from one terminal to another (via session portability).

## Add triggers to profile (Y or N)

This field specifies whether users can create trigger definitions and add the new triggers to their profiles. To save additions, **Maintain trigger profile** must also be set to Y.

## Modify triggers in profile (Y or N)

This field specifies whether users can modify existing trigger definitions. By default, users cannot modify the dialog name or any parameter field of any existing trigger definition. To save changes after log off, Maintain trigger profile must also be set to Y.

If you grant authority to modify triggers but not to add triggers, users can modify any field of a trigger definition except the dialog name. If you grant authority both to modify and to add triggers, users can modify all fields, including the dialog name. By changing the dialog name, a user could create a trigger that would execute a dialog you want to reserve for system administrators.

## Data compression (Y or N)

Specifying Y allows data compression. Data compression can be turned off by specifying N in the session profile or the APPLDEF.

If data compression is performed, the system sends the minimum number of characters needed to update a screen. Character sequences that are the same as those already displayed are not sent. Consecutively repeated characters are sent in reduced format (3270 repeat to address order).

Data compression can affect input/output rates positively. It uses additional host resources to examine and compress the data stream.

**Note:** Specifying Y for compression may cause problems with PC file transfers. To mitigate this, a special trigger, \ft, is provided.

For more detailed information concerning data compression, see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

#### Switch terminals (Y or N)

This field specifies session portability; whether or not users automatically have their sessions transferred to another terminal when they log on to CL/SuperSession from the other terminal.

#### Preserve sessions upon exit (Y or N)

This field specifies whether or not a user's virtual sessions will remain active after the user logs off. Because all sessions are virtual sessions, they can be saved as active sessions when the user logs off and even when the physical terminal is disconnected. If Y is specified, when the user logs back on, the virtual session will still be active and the user can resume the session(s).

### Print screens (Y or N)

This field specifies whether or not a hard copy of the current screen image

can be directed to a printer by entering the **p** action code on the Main Menu or by executing the **@p** default trigger while viewing the screen.

#### Session limit (1-999)

This field specifies a maximum limit (1-999) on the number of virtual sessions that a user can have active at the same time. If this number is reached and the user attempts to establish another session, the attempt is denied and an error message displays. The default is 10.

### Default printer name

This field specifies the name of a VTAM-defined printer to which any printed output generated by a user (such as a hard copy of the current screen) is routed. The value specified can also be the name of a VPRINTER ACB. See the discussion of virtual printers in the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*. There is no default.

# **Updating Session Profile options**

If you have selected the **Sessions** segment of the Update GLOBAL Profile window, the Update GLOBAL Session Profile window displays.

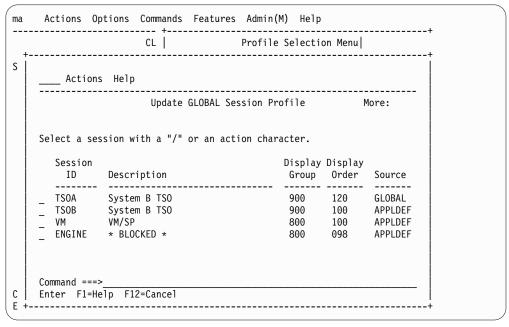


Figure 10. Update GLOBAL Session Profile Window

This panel allows you to:

- 1. Select an existing session by placing the cursor in the data entry field to the left of the session ID.
- 2. Type one of the following action codes, and press Enter:
  - A Add a session that is not already defined. When you press **Enter**, the Add a Session window displays.
  - Delete a session. When you press Enter, the session is removed from your menu.
  - M Modify a session. When you press **Enter**, the Modify a Session Definition window displays.
  - I Display information. When you press **Enter**, the Additional Session Information window displays.

- L Add a session that is already defined. When you press **Enter**, the Add from GLOBAL Session List window displays(APPLEDEF'd).
- Block a defined session from being available to lower-level profiles, for example, to prevent users from adding it to their own session menus. After you press Enter, the session description on the Update GLOBAL Session Profile window reads \* BLOCKED \*.
- U Unblock a blocked session, to make it available to lower-level profiles, for example, to prevent users from adding it to their own session menus. After you press Enter, the description \* **BLOCKED** \* on the Update GLOBAL Session Profile window is replaced with the normal session description.
- Display the Action Code Menu (see Figure 11). You select the action by either entering the appropriate code in the screen home position (the\_field) or positioning the cursor to the left of the action, and pressing **Enter**.

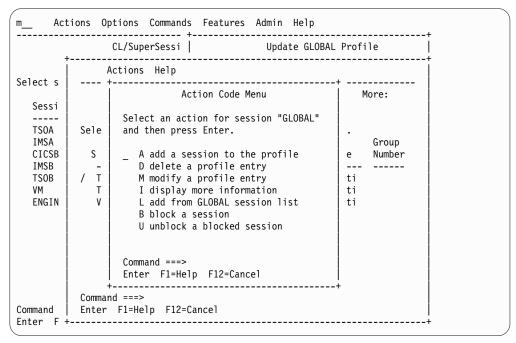


Figure 11. Action Code Menu

The succeeding paragraphs describe the windows used to perform each of the activities selected through an action code.

*Adding a Session:* If you specify **a** as the action code and press **Enter**, the window in Figure 12 on page 50 displays.

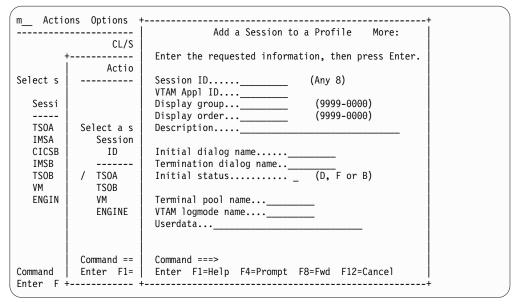


Figure 12. Add a Session to a Profile Window

Data can be entered for all parameters listed on this screen. Data *must* be entered for the **Session ID** and **VTAM Appl ID** fields. Other fields either have defaults assigned to them or are optional. The fields have the following values:

#### Session ID (Any 8 characters)

A 1- to 8-character session name that uniquely identifies the session on the Main Menu. Alphanumeric and special characters can be used. The session ID is always paired with an application ID, specified in the next screen field. A session starts when the session ID is selected from the menu or specified as an operand on a START or BACKGROUND command. There is no default.

#### VTAM Appl ID

A 1- to 8-character VTAM application identifier. VTAM application IDs (APPLIDs) can contain alphanumeric and national characters. However, the first character must be alphabetic. There is no default.

## **Display group (9999-0000)**

A 1- to 4-digit number that organizes sessions into groups for display on the Main Menu. Groups are listed in high-to-low order. The default is the group number of the currently selected session.

#### Display order (9999-0000)

A 1- to 4-digit number that specifies where to display the session on the Main Menu. Sessions are listed in high-to-low order within each display group. The default is the order number of the currently selected session.

#### Description

A text description no more than 30 characters long; the description can contain alphanumeric and special characters. While not a required field, the description appears on the Main Menu, and could provide important information for new system users. There is no default.

## Initial dialog name

A 1- to 8-character dialog name that identifies a dialog to be executed when users log on to this session. The dialog named here will perform initialization processing. Frequently, the initialization performed includes supplying a session user ID and password. There is no default.

**Note:** A number of sample initial dialogs are provided. Each of these dialogs enters the logon user ID and password for an application, as follows:

**KLSONTSO** Enters the user ID and password for TSO. **KLSONVM** Enters the user ID and password for VM.

**KLSONCIC** Enters the CICS CSSN command.

**KLSONCUA** Enters the user ID and password for the CUA operator facility.

You can use one of these dialogs, or you can create your own initial dialog by using the Structured Session Procedure Language (SSPL) described in the *Dialog Language Reference Manual*. Dialogs must be copied from the sample library to the panels library.

## Termination dialog name

A 1- to 8-character dialog name that identifies a dialog to take control after orderly termination of this session. Refer to the discussion of TERMDLG in the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*. There is no default.

### Initial status (B, D, or F)

Each session appearing on the Main Menu is assigned a status code that specifies if the session is to be started automatically when the user logs on to CL/SuperSession. The codes that can be assigned are:

- **B** Background. The session is defined and activated. Its status is active, but it does not become the current session.
- **D** Define. The session is defined but not activated. Its status is inactive.
- F Foreground. The session is defined and activated. Its status is active and it becomes the current session. If more than one session is assigned the F status code, the last foreground session in the list becomes the current session.

**Note:** When you create a session, it is added to the Main Menu and its initial status is executed immediately.

#### Terminal pool name

The name specified must be a valid terminal pool name defined by a VSM command. There is no default.

During startup of a session, a virtual terminal is allocated from a virtual terminal pool. This mechanism enables many sessions to be active with one physical terminal.

Pools are sorted alphanumerically by pool name. If no virtual terminal pool is specified, the session is assigned to a pool in sort sequence. For more information on virtual terminals and virtual terminal pools, see "Defining Applications" and the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

### VTAM logmode name

The name specified must be a valid VTAM logmode name for your installation. There is no default.

The VTAM logmode identifies terminal characteristics such as screen size and device type, and establishes various rules and parameters for a session between an application and a terminal.

For more information on logmodes, see "Updating CL/SuperSession Logmode Tables" on page 67, and the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

#### Userdata

Some applications allow or require that user-supplied data is passed as part of session establishment. For example, TSO accepts a logon ID, password, and other information. This field provides values for the application user-supplied parameters. This field accepts a text string no longer than 30 characters. Format of the text string is determined by the requirements of the application. There is no default.

See the discussion of APPLDEF in the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

When you finish entering data, press **F8** for a continuation panel. The window in Figure 13 displays.

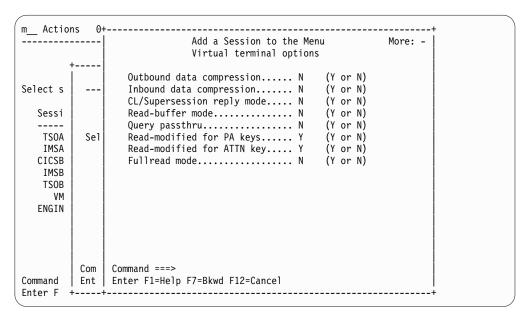


Figure 13. Add a Session to the Menu Window

This window shows the current virtual terminal options for the session and allows you to update them. These options control the flow of data between the virtual session and the physical session. The fields have the following values:

### Outbound data compression (Y or N)

Outbound data compression reduces the amount of data sent to the physical terminal. Application data streams are modified to eliminate writing already-displayed data to the physical terminal. Repeating characters are also compressed.

If Y is specified, outbound data compression occurs. By default, data streams are passed through to the physical terminal uncompressed. This field should be set to N when performing file transfers.

## Inbound data compression (Y or N)

Inbound data compression reduces the amount of data coming from a physical terminal. Application data streams sometimes contain field attributes that indicate they are modified fields. When an Enter or a PF key is pressed, the physical terminal sends the modified field data.

This field should be set to N when performing file transfers.

## CL/SuperSession reply mode (Y or N)

CL/SuperSession reply mode can be used with specialized applications that rely on character attribute information being present in inbound data streams. By default, the reply mode established by the application (rather than by CL/SuperSession) is used.

## Read-buffer mode (Y or N)

Read-buffer mode can be used with specialized applications that use an unformatted screen and rely on nulls (x'00') being present in the inbound data streams. If Y is specified, a read-buffer command is issued when input is received from an unformatted screen. By default, the data stream is accepted as received from the physical device.

## Query passthru (Y or N)

When a physical terminal logs on to CL/SuperSession, 3270 read partition query operations are used to collect all available query reply data from the terminal. The data is saved for the duration of the physical terminal session and can normally be used to satisfy any read partition query operation from an application without performing I/O to the device. In some instances, however, the device may dynamically change the query reply data. The dynamic addition of the DDM query reply by some PC file transfer programs is a notable example of how the device may change the query reply data.

When Y is specified, a read partition query from the application causes CL/SuperSession to collect all available query replies from the terminal before satisfying the application's query request. Dynamically added or modified query replies are then made available to the application. For PC file transfer programs this should be set to Y.

## Read-modified for PA keys (Y or N)

CL/SuperSession issues a read-modified when a PA key is pressed, saving any data that the user has typed since last pressing Enter or a PF key. This can cause problems at non-SNA physical terminals if the user presses another AID key too soon after pressing the PA key. CL/SuperSession detects that the inbound data stream is not in response to the read-modified and displays a terminal input error message.

If N is specified, CL/SuperSession does not issue a read-modified after the user presses a PA key.

#### Read-modified for ATTN keys (Y or N)

CL/SuperSession issues a read-modified when the ATTN key is pressed, saving any data that the user has typed since last pressing Enter or a PF key. This can cause problems at SNA physical terminals if the user presses another AID key too soon after pressing ATTN. CL/SuperSession detects that the inbound data stream is not in response to the read-modified and displays a terminal input error message.

If N is specified, CL/SuperSession does not issue a read-modified after the user presses ATTN.

#### Fullread mode (Y or N)

CL/SuperSession issues a read-buffer command whenever input is received from the physical terminal. This can cause significant network and processing overhead. Therefore, you should specify Y only for applications that must see the exact placement of null characters within the device buffer, such as VM/CMS XEDIT.

When you finish entering data, press **Enter**. The information you specified will be saved and the Update GLOBAL Session Profile screen redisplays.

**Updating the Session List:** To update the session list, specify L as the action code while the Update GLOBAL Session Profile window is displayed. When you press **Enter**, the window in Figure 14 displays.

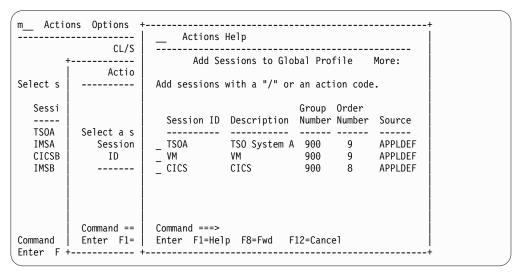


Figure 14. Add Sessions to Global Profile Window

This window lists sessions already defined either in the GLOBAL Profile or from an APPLDEF command; the Source column indicates which. To add one of these sessions to the global session list, type A to the left of the session ID and press **Enter**. The session is added immediately.

*Modifying Session Definitions:* If you specify M as the action code while the Update GLOBAL Session Profile window is displayed, when you press **Enter** the window in Figure 15 displays.

	C	Modify a Session Definition More: +
+		
	Ac	Modify session TSOA then press Enter.
Gelect s   -		·
		(GBL) VTAM Appl ID TSOA
Sessi	İ	(GBL) Description TSO System A
	İ	(GBL) Display group 9000 (9999-0000)
TSOA	Select	(GBL) Display order 0020 (9999-0000) m
IMSA	İ	
CICSB	Sess	(GBL) Initial status D (D, F, or B)
IMSB		(GBL) Initial dialog name KLSONTSO
TSOB	m TSOA	(GBL) Termination dialog TERMTSO
VM	TS0B	
ENGINE	VM	(GBL) Terminal pool name TSOLGNHR
İ	ENGIN	(GBL) VTAM logmode name
İ	İ	(GBL) Userdatauser08
İ		
į (	Command	Command ===>
Command   E	Inter	Enter F1=Help F4=Prompt F8=Fwd F12=Cancel
Enter F ++		

Figure 15. Modify a Session Definition Window

Complete this screen as described in "Adding a session".

**Deleting a Session:** To delete a session, specify **d** as the action code while the Update GLOBAL Session Profile window is displayed. A pop-up window appears asking you to confirm or cancel the deletion. If you confirm, the session is removed from lower-level profile menus.

**Blocking a Session:** Use the B action code to block a session defined in an APPLDEF or in a higher-level profile. When you block such a session, you make it unavailable to lower-level profiles. The description field for the session will read \* **BLOCKED** \*. A blocked session cannot be modified.

**Unblocking a Session:** Use the U action code to unblock a blocked session and restore its availability to lower-level profiles. The normal session description will replace the word \* **BLOCKED** \*.

*Displaying Session Information:* To display session information, specify **i** as the action code while the Update GLOBAL Session Profile window is displayed. When you press **Enter**, the window in Figure 16 displays.

Figure 16. Session Information Window

This is an informational screen; data cannot be entered on it. Not all the information contained on this screen is entered through the administrator panels. The three-letter code appearing in parentheses to the left of each description field indicates the source of the definition:

APL	APPLDEF
GBL	GLOBAL Profile
GRP	Group profile
USR	User profile

If you press **F8** from this panel, the virtual terminal options for the session display (see Figure 13 on page 52).

# Updating trigger profile options

If you selected **Trigger** on the Update GLOBAL Profile window, the Update GLOBAL Trigger Profile window displays.

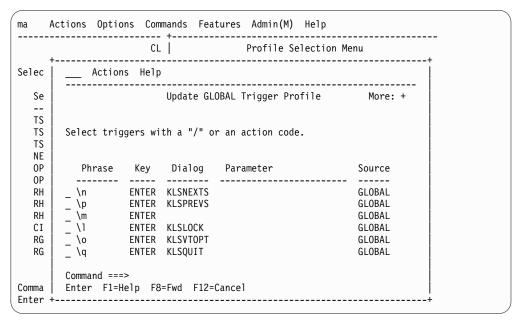


Figure 17. Update GLOBAL Trigger Profile Window

This window provides the following information about each trigger available to the GLOBAL Profiles:

Phrase	The character string (no more than 8 characters) to be used along with a trigger key to invoke a trigger dialog. Use of a trigger phrase is optional.
Key	The AID key that causes the trigger dialog to be executed.
Dialog	The name of the dialog that is executed when the trigger is invoked.
Parameter	The parameter whose value is passed to the trigger dialog when the dialog is executed.
Source	The source of the trigger definition.

## Specifying action codes

On the Update GLOBAL Trigger Profile window, you can:

- · Add a trigger
- Delete a trigger
- · Modify the trigger definition
- Block a trigger
- Unblock a trigger
- Display trigger information

To perform any of these activities:

- 1. Select an existing trigger by placing the cursor in the data entry field to the left of the trigger phrase.
- 2. Type one of the following action codes and press **Enter**:
  - A Add a trigger. When you press **Enter**, the Add a Trigger window will be displayed. The new trigger will be added to the global trigger profile.

- **D** Delete a trigger. When you press **Enter**, the trigger will be deleted. The trigger will be removed from the global trigger profile.
- M Modify a trigger. When you press Enter, the Modify A Trigger window displays.
- B Block a trigger. The trigger will not be available to lower-level profiles.
- U Unblock a trigger. The trigger will be available to lower-level profiles.
- I Display information. When you press **Enter**, the Trigger Help window displays for IBM-supplied trigger dialogs.
- Display the trigger Action Codes window. You select the action by either typing the appropriate code in the home position or positioning the cursor to the left of the code, and then pressing Enter.

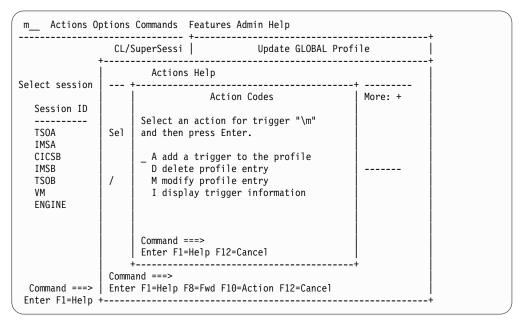


Figure 18. Trigger Action Codes Window

*Adding a Trigger:* To add a trigger, specify **a** as the action code while the Update GLOBAL Trigger Profile window is displayed. When you press **Enter**, the window in Figure 19 on page 58 displays.

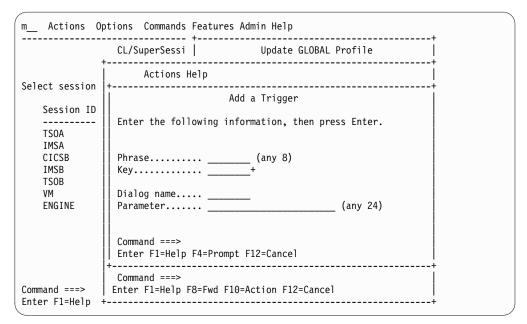


Figure 19. Add a Trigger Window

Data can be entered for all parameters listed on this screen. The **Key** value must be provided. **Phrase**, **Dialog name**, and **Parameter** values are optional.

### Phrase (any 8 characters)

A trigger phrase is a string of 1 to 8 alphanumeric or special characters. This field is optional and there is no default.

The following conditions must be met to invoke a trigger:

- The current session must be a MULTI type session.
- One of the following:
  - A trigger phrase is entered in the first position of an input field and the trigger key is pressed (if the key is defined for the trigger). The cursor must still be in the input field.
  - The trigger key is pressed and there is no associated trigger phrase.

**Key** This field identifies the key that, when pressed, causes a trigger dialog to be executed. There is no default.

Only certain keys can be selected as trigger keys (that is, PA1-3, F1-F24, ENTER, and CLEAR). You can type in the value or you can select it from the trigger Key Choices window illustrated in Figure 21. The trigger Key Choices window lists all valid trigger keys. To use this selection window, perform the following actions:

- 1. Press the Prompt (F4) key to display the window.
- 2. Position the cursor next to the key to be selected.
- 3. Press Enter.

There is no default.

**Note:** Both trigger phrase and trigger key are optional. However, one must be defined.

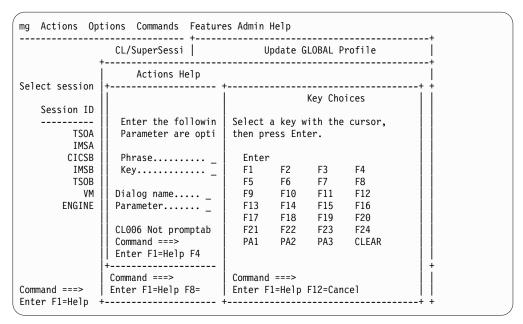


Figure 20. Trigger Key Choices Window

## Dialog name

The name of the trigger dialog that will be executed when the trigger key is pressed. The value assigned must identify a dialog written in the Structured Session Procedure Language (SSPL). The name can include no more than 8 alphanumeric and special characters. There is no default.

If no dialog is associated with a trigger key-phrase combination and the trigger is invoked, the Main Menu displays.

#### Parameter (any 24)

This field can contain a string of no more than 24 alphanumeric and special characters. The parameter is passed to the trigger dialog in *&sysparm* when the trigger is executed. For more information on *&sysparm*, see the *Dialog Language Reference Manual*. The content and format of the parameter is determined by the requirements of the trigger dialog. There is no default.

When you finish entering data, press **Enter**. The information you specified will be saved and the Update GLOBAL Trigger Profile window redisplays.

*Modifying Trigger Parameters:* The procedure to modify trigger parameters is similar to that used to create a new trigger. To modify a trigger, specify **m** as the action code while the Update GLOBAL Trigger Profile window is displayed. When you press **Enter**, the window in Figure 21 on page 60 displays.

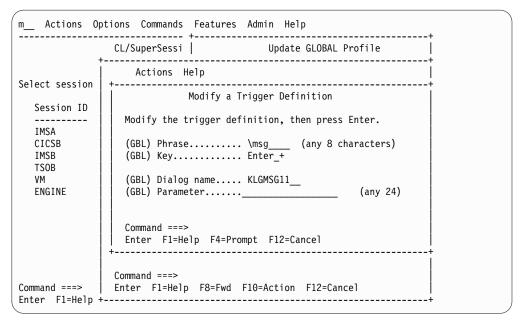


Figure 21. Modify a Trigger Definition Window

Data can be entered for all parameters listed on this screen.

Complete the fields on this screen as described previously in "Adding a Trigger". When you finish entering data, press **Enter**. The information you specified is saved, and the Update GLOBAL Trigger Profile window redisplays.

**Deleting a Trigger:** Specify **d** to delete a trigger definition. When you press **Enter**, the trigger will be deleted. The trigger will be removed from the global trigger profile.

*Displaying Trigger Definitions:* When you press **Enter**, the Trigger Help window is displayed for IBM-supplied trigger dialogs.

**Blocking Triggers:** Specify **b** to block a trigger. The trigger will not be available to lower-level profiles.

*Unblocking Triggers:* Specify **u** to unblock a trigger. The trigger will be available to lower-level profiles.

### **Updating Window Profile options**

If you selected **Window** on the Update GLOBAL Profile window, the Window GLOBAL Profile Segment window displays.

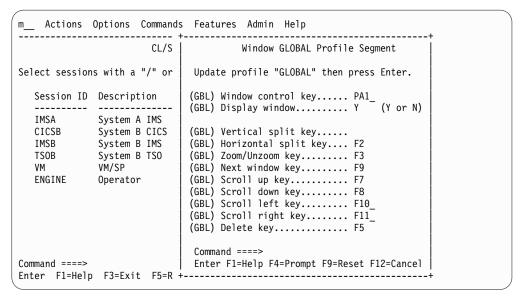


Figure 22. Window GLOBAL Profile Segment Window

You can use this panel to set keys and options for CL/SuperSession window control. The keys used for CL/SuperSession window control are separate from function keys used by other applications. The fields have the following values:

#### Window control key

This field sets the key that activates window control functions for users. Only certain keys are valid selections for this parameter (that is, F1 to F24, PA1 to PA3, or ATTN). Avoid setting the ATTN key as the window control key. By default, on SNA terminals the ATTN key returns the user to the Main Menu. The default is PA1.

#### Display window (Y or N)

By default, when a user presses the window control key, a pop-up window displays and allows selection of a window control function. If you set this field to N, the pop-up window does not appear, and window control waits for the user to press a second key to complete the function.

## Vertical split key

This key splits the screen vertically at the cursor position. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is **F4**.

#### Horizontal split key

This key splits the screen horizontally at the cursor position. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is **F2**.

#### Zoom/Unzoom key

This key enlarges a window to full-screen display. Pressing the zoom/unzoom key a second time restores the multiple window display. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is **F3**.

#### Next window key

This key jumps to the next active window. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is F9.

#### Scroll up key

This key moves the cursor up in a window when the information available

for display exceeds the size of the window. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is F7.

### Scroll down key

This key moves the cursor down in a window when the information available for display exceeds the size of the window. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is F8.

### Scroll left key

This key moves the cursor left in a window when the information available for display exceeds the size of the window. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is F10.

## Scroll right key

This key moves the cursor right in a window when the information available for display exceeds the size of the window. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is

### Delete key

This key deletes the window that contains the cursor. If the user deletes a zoomed window, the next window appears, and the screen resumes an unzoomed (multiple window) display. Only certain keys are valid for this parameter (that is, F1 to F24 or PA1 to PA3). The default is F5.

# Creating a new group or user profile

To create a new group or user profile, do one of the following:

- Create the profile without using an existing profile.
- Copy an existing profile and modify the copy.

# Creating a new profile without copying data

Perform these steps to create a new profile without using an existing profile:

1. While the Administrator Menu is displayed, select Profile Administration. The Profile Selection Menu displays.

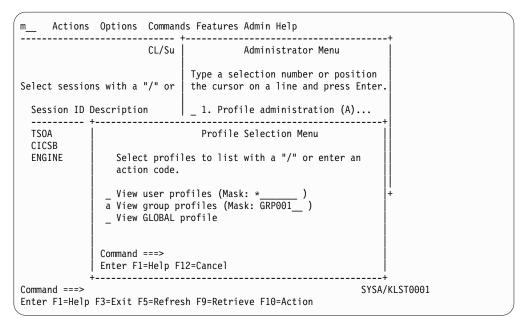


Figure 23. Profile Selection Menu

2. With the cursor to the left of the profile level you want (group or user), type a (for Add profile). In the Mask field, type the name to be assigned to the new profile, and press Enter.

The Add Profile window displays (Figure 24).

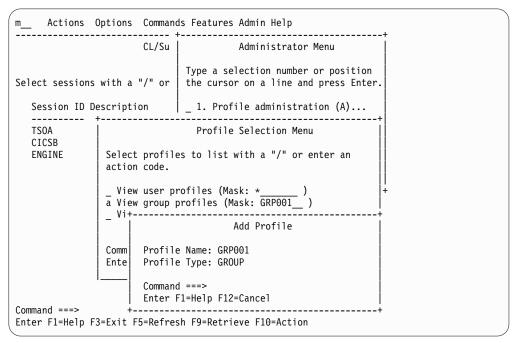


Figure 24. Add Profile Window

3. Depending on the type of profile you select, when you press **Enter** either the Update Group Profile window or the Update User Profile window displays. You can accept the defaults shown in the window, or select the segments for modification as described in "Updating the GLOBAL Profile" on page 40.

# Copying a group or user profile

Rather than creating a new profile from scratch, in many cases you can start by copying an existing profile. Doing so will reduce the amount of data you need to enter. You need only change values that are not appropriate for the new profile. You can copy a user profile only to a user profile, and a group profile only to a group profile.

Perform these steps to create a new profile from an existing one:

- 1. While the Administrator Menu is displayed, select **Profile Administration**. The Profile Selection Menu displays.
- 2. With the cursor to the left of the profile level you want (group or user), type **c** (for Copy profile). In the **Mask** field, type the name of the profile you want to copy, and press **Enter**.

The Copy/Create Profile window displays (Figure 25).

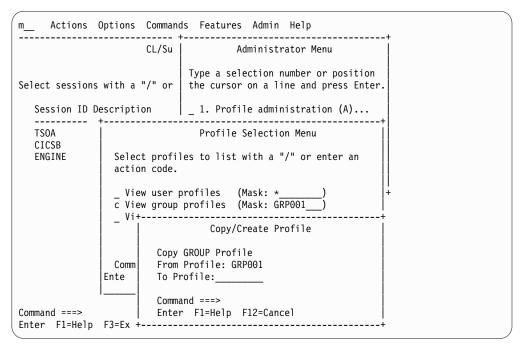


Figure 25. Copy/Create Profile Window

- 3. Type the name to be assigned to the new profile and press **Enter**. If the name you choose is already the name of an existing profile, a pop-up window will ask whether you want to replace the existing profile or cancel the request. Otherwise, the new profile will be created immediately. The values for all profile segments that exist will be copied to the new profile.
- 4. A message indicates successful completion of the profile copy. Press **Enter**, and control returns to the Profile Selection window. Update the copy as described in "Updating a Group or User Profile."

# Updating a group or user profile

The procedures for updating a group or user profile are almost the same as those for updating a GLOBAL Profile.

1. While the Administrator Menu is displayed, select **Profile Administration**. The Profile Selection Menu displays.

2. From the Profile Selection Menu, type **s** to the left of the level of profile (group or user) you want to update. In the **Mask** field, type the name of the profile you want to update, and press **Enter**.

The only major difference is that when you update a user profile, you can specify a group that the user profile will belong to. On the Common User Profile Segment window, specify the name of an existing group in the field **Group profile name**. The values for the user profile parameters will then be a combination of the global values and the values that are modified for the group profile. (You can override these values in the individual user profiles.)

# Deleting a group or user profile

Perform these steps to delete a group or user profile:

- 1. While the Administrator Menu is displayed, select **Profile Administration**. The Profile Selection Menu displays.
- 2. With the cursor to the left of the level of the profile you want to delete (group or user), type d. In the Mask field, type the name of the profile you want to delete, and press Enter.

# Viewing profile information

You can view information about your profiles and about the tables associated with each profile.

Perform these steps to view profile information:

- 1. On the Administrator Menu, select **Profile administration**. The Profile Selection Menu displays.
- 2. To view information about all profiles:
  - a. Type i in all 3 input fields on the left side of the window.
  - b. Enter an asterisk (\*) in both Mask fields.
  - c. Press Enter.

To view information about one type of profile:

- a. Type i to the left of the profile line.
- b. Type the profile name in the adjacent Mask field.
- c. Press Enter.

You can limit the information display by using a *mask*; only profile names that match the mask will be selected. For example, to view only those group profiles that begin with the letters **admin**, type **admin\*** in the **Mask** field to the right of **View group profiles** (as shown in Figure 26 on page 66). The default mask is \*, or all profiles of a selected type.

### Viewing profile information

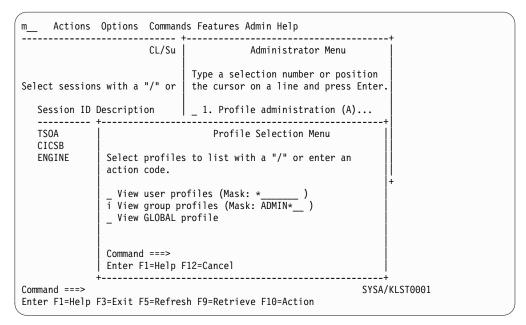


Figure 26. Profile Selection Menu

After you enter the display criteria on the Profile Selection Menu, the Profile Summary window appears. The example shown in Figure 27 is the profile summary resulting from a request for all group profiles beginning with the letters **admin**.

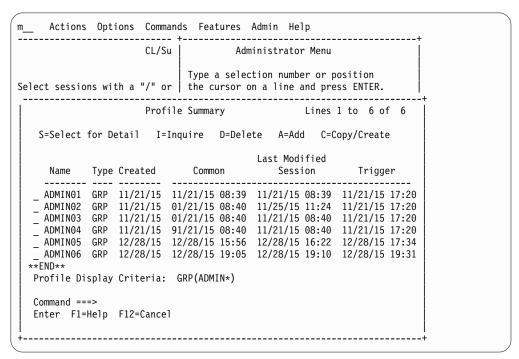


Figure 27. Profile Summary Window

The Profile Summary gives you a list of profile names to choose from. The profile names are sorted first by type (user, then group, then global), then by name.

For each profile listed, you see the following at a glance:

• What type the profile is (USR, GRP, or GBL).

- When the profile was created.
- When the associated tables were last modified. If a particular table does not exist, N/A appears on the summary.
- 3. To view further information about the tables associated with a specific profile, type **i** to the left of the profile name on the Profile Summary window. The Profile Information window appears.

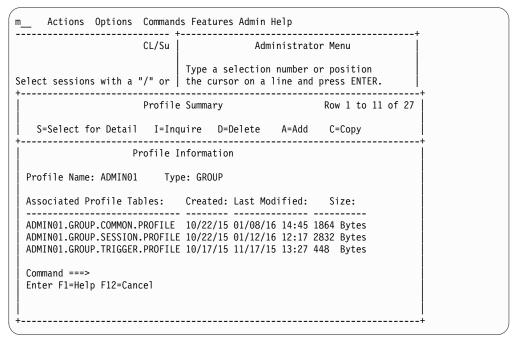


Figure 28. Profile Information Window

The Profile Information window shows:

- The full names of the tables associated with the profile
- · The date when each table was created
- · The date when each table was last modified
- The amount of memory required for each table

When you press **F12** to exit the Profile Information window, you return to the Profile Summary window.

4. To view detailed information about a profile, type **s** (Select) in the data entry field to the left of the profile name on the Profile Summary window. The Update Profile window appears and lets you select profile segments to view or update.

# **Updating CL/SuperSession Logmode Tables**

The VTAM logmode identifies terminal characteristics, such as screen size and device type, and establishes various rules and parameters for a session between an application and a terminal. To establish a session, VTAM must find in a logmode table the logmode entry name specified during the logon request.

CL/SuperSession maintains an internal table that contains the VTAM logmode definitions. This section explains how to update your CL/ SuperSession internal logmode table through the Administrator Menu. These modifications do not affect

### **Updating CL/SuperSession logmode tables**

the VTAM logmode table. For a more detailed explanation of logmodes, see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide* and *IBM's VTAM Customization*.

Perform these steps to begin customizing your CL/SuperSession logmode table:

- 1. Select **Admin** from the Main Menu action bar. The Administrator menu will appear.
- 2. Select **Update Logmode Table** from the Administrator Menu. The Update Logmode Table window (Figure 29) displays.

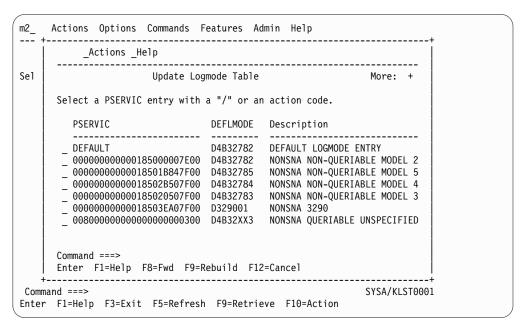


Figure 29. Update Logmode Table Window

The first time you display the Update Logmode Table window, it shows a default set of entries. You can accept the defaults or change the logmode table as desired.

The Update Logmode Table window gives three kinds of information about each entry:

**PSERVIC** 

The presentation services portion of the BIND established between the physical and virtual terminals at logon. Each logmode table entry must have a unique PSERVIC ID.

When a user logs on to CL/SuperSession, the physical terminal's PSERVIC is compared with the PSERVIC IDs in this table. If a match is found, the virtual terminal is assigned the logmode that matches the logmode variable in your commands library member KLS\$VSMS. If a match is not found, the DEFAULT table entry is used.

**DEFLMODE** The default logmode for the entry.

**Description** A short (under 30 characters) description of the logmode table entry.

From the Update Logmode Table window, you can use the following action codes:

- A Add a new logmode table entry without basing it on an existing entry.
- C Create a new logmode entry by copying an existing entry and modifying the copy.
- M Modify an existing logmode table entry.
- D Delete a logmode table entry.

I Display more information about an existing table entry.

**Note:** Use the **F9** key to restore the logmode table to the default values. Any customization to the logmode table is deleted.

## Adding a logmode table entry

To add to the Logmode Table a new entry not based on any existing entry, type **a** in an input field to the left of any PSERVIC on the Update Logmode Table window, and press **Enter**. The Add a New Logmode Entry window (Figure 30) appears.

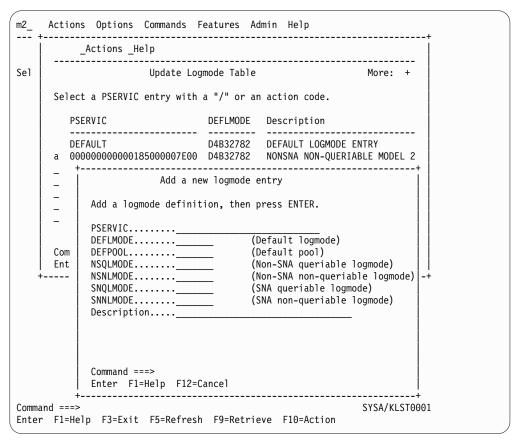


Figure 30. Add a New Logmode Entry Window

You can now fill in the fields on this window to create a logmode table entry. Your new entry must have a unique PSERVIC. For detailed information on the default logmode, default virtual terminal pool, and logmode types (SNA or non-SNA, queriable or nonqueriable), see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

A description of the logmode table entry is optional. The description can be any string that does not exceed 30 characters.

After you fill in the fields on the Add a New Logmode Entry window, press **Enter** to save the new table entry. The new entry is immediately added to the logmode table, sorted in ascending PSERVIC order.

## Copying a logmode table entry

To create a new logmode table entry based on an existing entry, type **c** on the Update Logmode Table window, in the input field to the left of the entry you want to copy, and press **Enter**. The Copy Logmode Table window (Figure 31) appears, showing the values of the entry you copied.

```
m2_
    Actions Options Commands Features Admin Help
      ____Actions _Help
Se1
                  Update Logmode Table
     Select a PSERVIC entry with a "/" or an action code.
                          DEFLMODE Description
       DEFAULT D4B32782 DEFAULT LOGMODE ENTRY
00000000000185000007E00 D4B32782 NONSNA NON-QUERIABLE MODEL 2
        +-----+
                 Copy logmode table
          Modify the logmode definitions, then press ENTER
          to add the new entry.
          PSERVIC...... 00000000000185000007E00
     Com
          DEFLMODE...... D4B32782 (Default logmode)
          Ent
          DEFPOOL..... MODEL2
                                 (Default pool)
          Description.... NONSNA NON-QUERIABLE MODEL2
          Command ===>
        Enter F1=Help F12=Cancel
Command == +-----+
Enter F1=Help F3=Exit F5=Refresh F9=Retrieve F10=Action
```

Figure 31. Copy Logmode Table Window

The only field you must change is the PSERVIC, which must be unique. You can then change other fields as desired. Make sure your description differentiates the new entry from the entry you copied. For detailed information on the default logmode, default virtual terminal pool, and logmode types (SNA or non-SNA, queriable or nonqueriable), see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

After you make all desired changes on the Copy Logmode Table window, press **Enter** to save the new table entry. The new entry is immediately added to the logmode table, sorted in ascending PSERVIC order.

# Modifying a logmode table entry

To modify an existing logmode table entry, type **m** on the Update Logmode Table window, next to the entry you want to modify. Press **Enter**. The Modify Logmode Table window (Figure 32 on page 71) will appear.

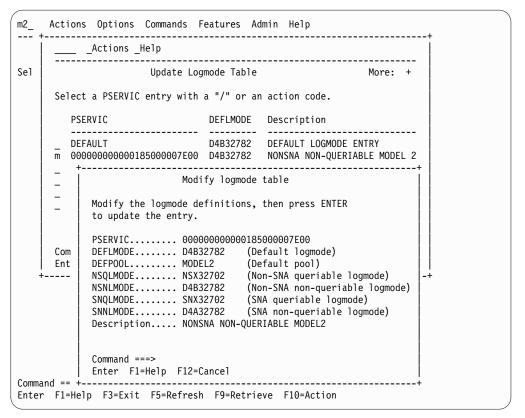


Figure 32. Modify Logmode Table Window

The only field you cannot change is the PSERVIC field.

After you make all desired changes on the Copy Logmode Table window, press **Enter** to save the updated table entry.

# Deleting a logmode table entry

To delete an existing logmode table entry, type **d** on the Update Logmode Table window next to the entry you want to delete. Press **Enter**.

You cannot delete the DEFAULT entry, which is used to set the default logmode if a physical terminal's PSERVIC does not match any entry in the table.

# Viewing logmode table information

To view information about a logmode table entry, type **i** next to the entry's PSERVIC. Press **Enter**. The Information on Logmode Table window (Figure 33 on page 72) will show the current specifications for the entry you selected. This window is strictly informational; you cannot use it to update the logmode table.

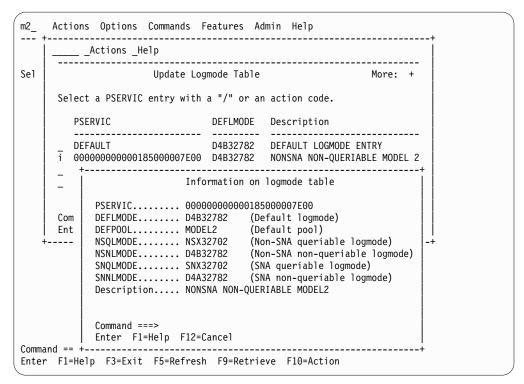


Figure 33. Information on Logmode Table Window

# Chapter 7. Starting and stopping CL/SuperSession

You have now configured CL/SuperSession.

This chapter provides instructions for starting and stopping CL/SuperSession.

# Starting CL/SuperSession

Issue this command from the system console:

S kls

where kls is the started task procedure name in your system PROCLIB.

**Note:** Although not a recommended procedure, the address space can be started as a batch job. Refer to the comments in the KLS procedure in SKLSSAMP for information on how to create the member that runs the job.

# Stopping CL/SuperSession

Issue this command from the system console:

P kls

The system displays this message:

+KLVOP022 SHUTDOWN MUST BE CONFIRMED WITHIN 15 SECONDS

Reissue this command from the system console:

P k1s

where kls is the started task procedure name in your system PROCLIB.

**Note:** By default, the second P kls command must be issued within 15 seconds to confirm shutdown. You can override the default by changing the CONFIRM parameter. Setting CONFIRM=0 will bypass confirmation.

Refer to the *IBM CL/SuperSession for z/OS V2.1 Customization Guide* for more information on changing the CONFIRM parameter.

The address space can also be stopped through the operator facility by issuing a SHUTDOWN command twice. Refer to the *IBM CL/SuperSession Operator's Guide* for more information on the SHUTDOWN command.

# What happens during initialization

The members of the following 3 libraries are used to perform initialization.

**TLVPARM** Initialization library. Consists of configuration members that contain data sources and data types, and initialization parameter specifications.

TLVCMDS Command library. Consists of members containing command lists. Most are

automatically invoked at start-up time to perform system initialization, and establish a standard execution and processing environment.

### What happens during initialization

**TLVPNLS** Panel library. Consists of members containing the dialogs that define the user interface.

The members, the libraries they belong to, and the flow of control between called members is shown in Figure 34. In the figure, I, C, and P refer to the initialization, command, and panel libraries respectively.

Following the figure are descriptions of each member, with examples of the commands and dialogs invoked.

**Note:** If changes were made to member names or content during installation and basic configuration, the descriptions provided here may not match those of your current setup. Product maintenance may also change the members' contents.

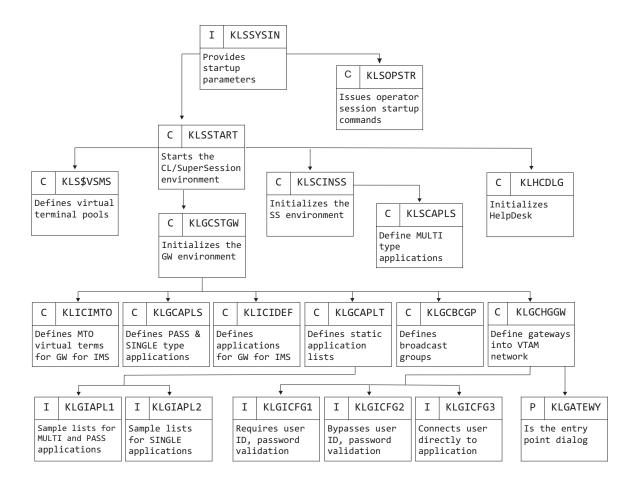


Figure 34. Default Startup of CL/SuperSession

### **KLSSYSIN**

Member in -THILEV-.SKLSPARM. Contains the startup parameters for the CL/SuperSession address space.

INITIAL (KLSSTART) OPSTART (KLSOPSTR) LSRPOOL (32768,8) LSRPOOL (4096,32)

```
LSRP00L(2048,8)
LSRP00L(10240,32)
.
```

#### **KLSOPSTR**

Member in -THILEV-.SKLSCMDS. Provides initial commands for all operators. As provided with the product, folds commands to upper case and shows the time. This command list is executed automatically on behalf of each operator logging on. PROFILE FOLD TIME

#### **KLSSTART**

Member in -THILEV-.SKLSCMDS. Starts the legacy operator facility (NODE) and the CUA Operator (KLVLOGON) then invokes command lists KLS\$VSMS, KLSCINSS, and KLHCDLGH.

```
KLHSYNCH
                                        * INITIALIZE HELPDESK LOCAL & REMOTE ATTRIBUTES
NODE -VTPREF-0
                                        * START CL/SUPERSESSION STANDARD OPERATOR FACILITY
DIALOG -VTPREF-5 KLVLOGON
                                        * START CL/SUPERSESSION CUA OPERATOR FACILITY
KLS$VSMS
                                        * DEFINE VIRTUAL TERMINAL POOLS
KLSCINSS
                                        * INITIALIZE CL/SUPERSESSION ENVIRONMENT
KLGCSTGW
                                        * START CL/GATEWAY
NTD KLSSOPTS 'KLSOPTHA -USEHAO-' * SET HELPDESK HIGH AVAILABILITY OPTION
-HDSTART-
                                       * START HELPDESK
EVERY 2:00
                                       * PREVENT S522 ABENDS
EVERY 30:00 STORAGE D * LOG STORAGE USE EVERY 30 MINUTES
EVERY 30:00 FLUSH * FLUSH VSAM LSR BUFFERS EVERY 30 MINUTES
EVERY 10:00 NTD KLSLOGDQ * DEQUEUE ACCESS MESSAGES EVERY 10 MINUTES
```

### KLS\$VSMS

Member in -THILEV-.SKLSCMDS. Defines pools of VTAM logical units (virtual terminals) used to establish sessions for SINGLE or MULTI.

### **KLSCINSS**

Member in -THILEV-.SKLSCMDS. Issues the supplied CLIST that defines MULTI type applications.

KLGCAPLS

### **KLSCAPLS**

Member in -THILEV-.SKLSCMDS. Defines MULTI type applications accessible through CL/SuperSession including the TSO APPLDEF, which is shown below.

### What happens during initialization

```
APPLDEF TSOSS

DEST=-TSODEST-
DESC='-TSODEST- (PASSTHRU/MULTSESS)' -
POOL=VIRTPASS -
INITDLG=KLSONTSO -
MULTSESS=YES -
GROUP=200 -
HELP=KLSH1HLP

.
```

### KLGCSTGW

Member in -THILEV-.SKLSCMDS. Additional CL/SuperSession initialization.

### **KLICIMTO**

Member in -THILEV-.SKLSCMDS. Defines virtual terminal pools for virtual MTOs for IMS operator sessions used by CL/SuperSession support for IMS.

```
VSM DEF IMSOP -VMTOPREF- TH(2) LOGMODE(SCS)
VSM DEF IMSOP1 -VMTOPREF- TH(4) LOGMODE(SCS)
```

### **KLGCAPLS**

Member in -THILEV-.SKLSCMDS. Defines PASS and SINGLE type applications accessible through CL/SuperSession including the TSO APPLDEF, which is shown below.

```
APPLDEF TSO

DEST(-TSODEST-)

SIMLOGON('&VIGUSER &VIGPSWD')

ORDER(5)

DESC('-TSODEST-(CLSDST PASS)')

USERDATA('LOGON &VIGUSER')

HELP(KLSH1HLP)

*

APPLDEF IMS

DEST(-IMSDEST-)

SIMLOGON('&VIGUSER &VIGPSWD')

ORDER(4)

DESC('-IMSDEST-(CLSDST PASS)')

HELP(KLIHIMS)

.
.
```

### **KLICIDEF**

Member in -THILEV-.SKLSCMDS. Provides IMS/DC definitions used by CL/SuperSession support for IMS.

```
IMS IASSIGN -
APPLID(IMS1) -
POOL(IMSOP) -
DUMMY(FAKENODE) -
MIN(1) -
```

```
MAX(2)
IMS
             IDEQUEUE
             APPLID(IMS1)
             POOL(IMSOP)
             MIN(1)
             MAX(2)
IMS
             IASSIGN
             APPLID(IMS1)
             POOL(IMSOP1)
             DUMMY (FAKENODE)
             MIN(1)
             MAX(2)
IMS
             IDEQUEUE
             APPLID(IMS1)
             POOL(IMSOP1)
             MIN(1)
             MAX(2)
```

#### **KLGCAPLT**

Member in -THILEV-.SKLSCMDS. Defines the static application lists. Associates a broadcast group with a particular application list.

```
APPLIST KLGIAPL1 BCGROUP(GROUP1)
APPLIST KLGIAPL2 BCGROUP(GROUP2)
```

#### **KLGCBCGP**

Member in -THILEV-.SKLSCMDS. Defines the messages for each broadcast group.

```
BCGROUP GROUP1 1 '
BCGROUP GROUP1 2 '
                               Copyright 1987-2016
BCGROUP GROUP1 3 '
                               an unpublished work by
BCGROUP GROUP1 4 '
                               IBM Corporation. All rights reserved.
BCGROUP GROUP1 5 '
                               Use permissible by License only.
BCGROUP GROUP1 6 '
BCGROUP GROUP2 1 '
BCGROUP GROUP2 2 '
                              Copyright 1987-2016
BCGROUP GROUP2 3 '
                               an unpublished work by
BCGROUP GROUP2 4 '
                              IBM Corporation. All rights reserved.
BCGROUP GROUP2 5 '
                               Use permissible by License only.
BCGROUP GROUP2 6 '
```

### KLGCHGGW

Member in -THILEV-.SKLSCMDS. Defines gateways into the VTAM network. Opens each gateway's ACB and establishes the gateway's environment.

When a user logs on to the ACB defined by a HOSTGATE command, the dialog specified by the DIALOG parameter receives control. The interface then executes under the direction of the configuration specified by the CONFIG parameter. The BCGROUP parameter associates the user logging on to a gateway with a specific broadcast group. The ATTENTION parameter activates window control.

```
HOSTGATE -VTPREF-1 -
CONFIG=KLGICFG1 -
BCGROUP=GROUP1 -
DIALOG=KLGATEWY -
ATTENTION=KLGWATTN
HOSTGATE -VTPREF-2 -
CONFIG=KLGICFG2 -
```

### What happens during initialization

```
BCGROUP=GROUP2 -
DIALOG=KLGATEWY -
ATTENTION=KLGWATTN

HOSTGATE -VTPREF-3 -
CONFIG=KLGICFG3 -
BCGROUP=GROUP3 -
DIALOG=KLGATEWY
```

#### **KLHCDLGH**

Member in -THILEV-.SKLSCMDS. Defines HelpDesk initialization command. For more information about the HelpDesk features, see Chapter 10, "The HelpDesk," on page 115.

#### KLGIAPL1

Member in -THILEV-.SKLSPARM. Lists static application definitions for PASS and MULTI type applications. These applications are available to users who have been assigned an APPLIST of KLGIAPL1. The example lists applications defined in -THILEV-.SKLSCMDS library members KLGCAPLS and KLGCAPLS.

```
* SESSIONS DEFINED IN RLSCMDS(KLSCAPLO)
VPSS
VPSSCUA
* SESSIONS DEFINED IN RLSCMDS(KLSCAPLS)
TS0SS
{\tt IMSSS}
IMSDSS
IMSASS
CICSSS
GROUP=0
* SESSIONS DEFINED IN RLSCMDS(KLGCAPLO)
VTPOPER
CUAOPER
* SESSIONS DEFINED IN RLSCMDS(KLGCAPLS)
TS0
IMS
IMSDEQ
* IMSASSGN
CICS
```

### **KLGIAPL2**

Member in -THILEV-.SKLSPARM. Lists static application definitions for SINGLE type applications. These applications are available to users who have been assigned an APPLIST of KLGIAPL2. The numbers 1 - 7 in the example identify applications defined in -THILEV-.SKLSCMDS library member KLGCAPLS.

```
GROUP=100
* SESSIONS DEFINED IN RLSCMDS(KLGCAPLS)
*
2
3
4
5
6
```

```
* SESSIONS DEFINED IN RLSCMDS(KLGCAPLO)
*
1
7
```

### **KLGICFG1**

Member in -THILEV-.SKLSPARM. Defines a CL/SuperSession configuration by specifying each data element (USERID, PASSWORD, APPLIST, and so on) with its list of data sources. The KLGICFG1 configuration example requires user ID and password validation.

```
USERID
         REQUIRED
         USERDATA(0)
         PANEL (KLGLGON)
         PROMPT('ENTER USERID')
PASSWORD
         REQUIRED
         USERDATA(1)
         PANEL (KLGLGON)
         PROMPT('ENTER PASSWORD')
         LIMIT(3)
NEWPSWD
         REQUIRED
         USERDATA (NEWPSWD)
         PANEL (KLGLGON)
         PROMPT('PASSWORD EXPIRED, ENTER NEW PASSWORD')
ACCOUNT
         OPTIONAL
         PANEL (KLGLGON)
PROC
         OPTIONAL
         PANEL (KLGLGON)
GROUP
         OPTIONAL
         PANEL (KLGLGON)
APPLIST
         OPTIONAL
         DEFAULT (&VSPAPLST)
DEST
         REOUIRED
         USERDATA (APPLID)
         PANEL (KLSVSEL)
         PROMPT(' ')
         MENU
LTERM
         USERDATA (LTERM)
         PANEL(KLIDIMS)
         PROMPT('ENTER LTERM')
         DEFAULT (&VIGUSER)
LOGMODE
         OPTIONAL
P00L
         DEFAULT (&DEFPOOL)
PRTLTERM
         PANEL (KLIDIMS)
PROMPT('ENTER PRINTER LTERM')
PRTNODE
         NAM
```

### **KLGICFG2**

### What happens during initialization

Member in -THILEV-.SKLSPARM. The KLGICFG2 configuration example bypasses user ID and password validation.

```
USERID
         DEFAULT (&SYSTERM)
         LIMIT(1)
DEST
         USERDATA (APPLID)
         PANEL (KLSVSEL)
         PROMPT('')
         MENU
LTERM
         USERDATA (LTERM)
         PANEL (KLIDIMS)
         PROMPT('ENTER LTERM')
         DEFAULT (&VIGUSER)
P00L
         DEFAULT (&DEFPOOL)
USERDATA
LOGMODE
         OPTIONAL
PRTLTERM
         PANEL (KLIDIMS)
         PROMPT('ENTER PRINTER LTERM')
PRTNODE
PRTP00L
```

### **KLGICFG3**

Member in -THILEV-.SKLSPARM. The KLGICFG3 configuration example requires user ID and password validation, and connects a user directly to the application specified in the DEFAULT parameter of the DEST data element.

```
USERID
         REQUIRED
         USERDATA(0)
         PANEL (KLGLGON)
         PROMPT('ENTER USERID')
PASSWORD
         REQUIRED
         USERDATA(1)
         PANEL (KLGLGON)
         PROMPT('ENTER PASSWORD')
         LIMIT(3)
NEWPSWD
         REQUIRED
         PANEL (KLGLGON)
         PROMPT('ENTER NEW PASSWORD')
DEST
         DEFAULT(1)
         PANEL (KLGDST)
LOGMODE
P00L
         DEFAULT (&DEFPOOL)
```

KLGICFG3 connects the user directly to the operator facility. Because this gateway provides only single-session access (either SINGLE or CLSDLST PASS), the ATTENTION parameter (which specifies a workstation control dialog) is unnecessary in the KLGICFG3 HOSTGATE command.

## What happens during initialization

No triggers or CL/SuperSession functions, such as ATTN, are available through KLGICFG3.

## **KLGLGON**

Member in -THILEV-.SKLSPNLS. This is the entry point dialog for the CL/SuperSession interface.

# **Chapter 8. Profile reporting**

## Introduction

Profile Reporting is an interactive panel-driven tool, written in SSPL, which allows an administrator to view many profiles on the same panel.

Use the Profile Reporting facility to report on:

- COMMON, SUPERSESSION, and WINDOW segments residing in the table database in table \*.\*.COMMON.PROFILE for all user, group, and GLOBAL Profiles
- NAM variables found on the CL/SuperSession Main Menu Options pulldown menu for the Update Personal Information panel
- The total of triggers and/or sessions defined for each user or group profile
- Last-access date, time, and terminal ID information for each user in the table database

## Installation considerations

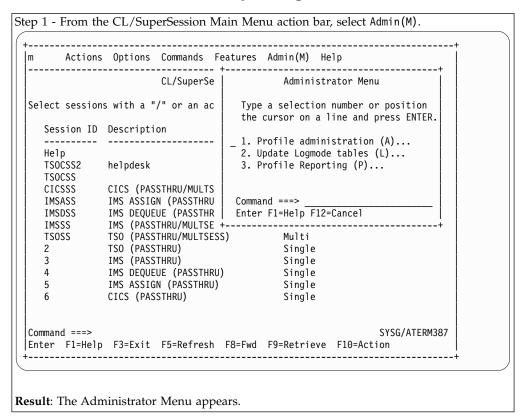
Profile Reporting reports only on the profiles of the CL/SuperSession region in which it is installed. If you are running multiple CL/SuperSession regions, you must define the extract process in each region on which a report is to be issued.

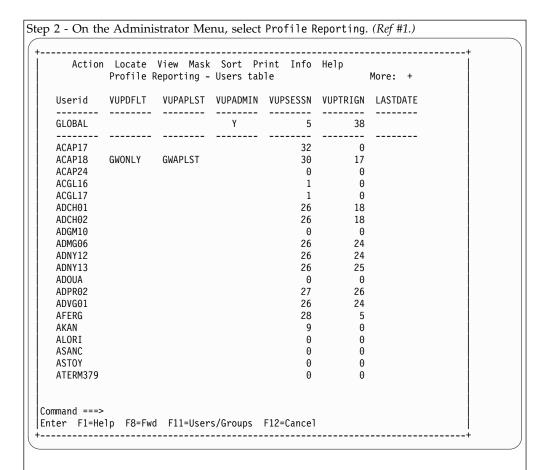
# **Invoking Profile Reporting**

### Introduction

This section describes accessing Profile Reporting, the Profile Reporting tables, and various panel indicators and attributes used by the Profile Reporting facility. You must have administrator authority to access Profile Reporting.

## **Procedures to access Profile Reporting**





Result: Profile Reporting is invoked and the Profile Reporting - Users Table appears.

When you invoke this panel from the Administrator Menu, the data displays by user ID in alphanumeric order. If you later change the presentation of the data by using the Sort action, that change remains in effect for the life of the session.

# Alternate method to access Profile Reporting

You can also use the fast path method to access Profile Reporting. To save steps, type the mnemonic of a selection on the pull-down menu. For example, Profile Reporting is the third selection on the Administrator Menu. Its mnemonic is P. To select Profile Reporting directly from the CL/SuperSession Main Menu:

- Type MP or M3 in the home position on the action bar.
   The M refers to Administrator and the P or 3 refers to Profile Reporting.
- 2. Press Enter.

**Result**: The Profile Reporting - Users table displays.

# **Profile Reporting tables**

The GLOBAL Profile values always display on the top of the panel. Only the overriding values are shown for each of the user and group profiles. The variables displayed are the first 6 variables found in the user profiles extract control member SKLVPARM(KLSPREXU) and in the group profile extract control member SKLVPARM(KLSPREXG). You can modify the variables and their order by using the View pull-down menu (discussed in "Viewing variables" on page 90).

The following indicators may appear to the left of a profile:

#### Asterisk (\*)

Indicates that the profile has been modified after the currently-displayed data was extracted.

### Hyphen (-)

Indicates that the profile has been deleted after the currently-displayed data was extracted.

These indicators are removed after the next time you run the extract dialog KLSPREXT.

## Color coding

Attributes such as color and the right caret (>) are used in Profile Reporting panels to identify the source level of a variable. On a color terminal, colors are used as follows:

**Pink** Data entered at the user level. When a value is blank, reverse video is used to indicate that a delta exists in the profile.

**Yellow** Data entered at the group level. When a value is blank, reverse video is used to indicate that a delta exists in the profile.

On a monochrome terminal:

- When viewing a users table, a right caret (>) displays to the left of values that are at the group level; an underscore (\_) displays to the left of a blank value at the user level.
- When viewing a group table, a right caret (>) displays to the left of blank values only.

**Note:** If you are using 3270 emulation hardware and software on a personal computer, various panel attributes (such as color, highlight, underline, and reverse video) may appear significantly different from the way they appear on an actual 3279 terminal. You may have to change definitions in your 3270 emulator to achieve desired color mapping. Refer to the appropriate manuals or consult your system administrator.

# **Function keys**

Only the function keys that are available for a panel are displayed. For example, panels with data that may continue over several screens display the backward and forward function keys, F7 and F8, while single-screen panels do not.

The CL/SuperSession function keys perform as described in the *CL/SuperSession Operator's Guide* with the following exceptions:

- F11 Users/Groups. Allows you to switch from the users table to the groups table and back (toggle).
- F5 Repeat Locate. Allows you to repeat a locate to find the next occurrences of the selected criteria. F5 appears at the bottom of the Profile Reporting Users table (or Group table) only if you have entered a value on the Locate pull-down menu.

## **Ellipsis**

An ellipsis (...) following a selection indicates that further information is available after you make the selection. You can then make selections from another menu or add data to complete the task.

# Using the action bar

## Introduction

You can select any of the following choices from the table action bar.

- Action
- Locate
- View
- Mask
- Sort
- Print
- Info
- Help

These choices are described in the following sections.

## **Taking actions**

To use an action code, place a slash (/) next to the profile name (Userid or Group) and press **Enter**, or directly select the action choice on the action bar.

Result: The Action Code Menu displays.

## **Action codes**

Please find action codes and their descriptions in the following table.

Table 7. Descriptions of action codes

Code	Description
S Admin functions for selected profile	Invokes the administration dialogs for the selected profile. If you modify a profile, an asterisk (*) appears to the left of that profile when you return to Profile Reporting.
M Send message	Sends a message to a selected user. If the selected user is ready to receive messages, dialog KLSPRMS&vsplang is called and the selected user's user ID is added to the Userid field.
	This action is only available from the Profile Reporting - Users table.
A View application list	Views application lists. This action is only available when a value is displayed in the VGPAPLST or VUPAPLST field (for example,GWONLY and GWAPLST, displayed for ACAP18 in the Profile Reporting - Users table on page reference #1). When an application is selected, the content of the corresponding SKLVPARM member is displayed.  Note: If you create an APPLIST name different from the actual member residing in SKLVPARM by issuing the APPLIST command with the ID parameter, using the View action code produces message CS922. For more information, see the APPLIST command parameters in the CL/SuperSession Operator's Guide.
U View users within group	Switches from the groups table panel to the users table panel. The entries displayed are the user IDs that belong to the specified group.
	This action is only available on the Profile Reporting - Groups table.
D Delete Common/Trigger/Session/NAM	Deletes selected profiles.  Note: The delete action also deletes the NAM entries for the selected profile.

## Locating values

When you select **Locate** on the action bar, the Locate pull-down menu displays.

Use the Locate menu to locate certain values on specific fields. If you select Locate on a user's table, **Userid** appears on this menu; if on a group table, **Group** appears. The other variables shown are those displayed on the table from which you selected Locate. If needed, you can use the View choice to select different variables on which Locate can operate.

Type your value next to the variable of your choice and press Enter.

**Result**: You are returned to the Profile Reporting table where a search begins for the selected variable only, starting from the top of the table.

When search criteria is established, F5 appears on the bottom of the table. A message informs you if the end of data is reached and the value has not been found. You can then press F5 to resume the search from the top of the table.

**Note:** You can use Locate to search for a single value in only one variable field at a time.

## Viewing variables

When you select View on the action bar, the View pull-down menu displays.

```
*******************
 Profile Reporting - View Selection
 Select which variables you want to view by entering the order
 next to them. Valid values are from 1 to 6.
 VUPDFLT:
1 VUPAPLST:
2 VUPUNAME :
13 VUPUDATA :
4 VSPULOC:
5 VSPUPHON:
6 VSPUINFO : VUPADMIN : VUPTRIGN : VUPSESSN :
 VUPPRT : VUPAUTHD : VUPAUTHP : VUPAUTHR : VUPAUTHS :
 VUPAUTHT : VUPAUTHU : VUPINITD : VUPTOINT : VUPWSSDN :
 VSPUNAME : VUPFETCP : VUPFETSM : VUPFETVS : VUPFETDT :
 LASTDATE : LASTTIME : LASTTERM :
 Command ===>
 Enter F1=Help F12=Cancel
  ***********
```

You can use the View menu to:

- · Specify which variables appear on the table panel
- Control the order in which variables display
- · Determine which variables will be available on other pull-down menus

All variables selected in SKLVPARM(KLSPREXU) and SKLVPARM(KLSPREXG) appear. The first six variable names default to position 1-6. You can select the variables that you want to display and the order in which they appear by typing numerals 1-6 in the variable name fields of your choice and pressing **Enter**.

**Result**: The table panel appears with the variable names presented in sequence, starting with the name you designated 1.

The variables you select on this menu will appear on all other action bar pull-down menus.

**Note:** The View menu does not control the key variables Userid and Groupid. Userid always appears on the top of the first column when Profile Reporting is displaying information for users' profiles; Groupid always appears when groups profile information is displayed.

You can obtain a description of any variable name by placing the cursor to the left of the variable and pressing F1. To obtain a description of all variable names displayed, place the cursor to the left of a blank line and press F1.

## Masking values

When you select Mask on the action bar, the Mask pull-down menu displays.

Use the Mask menu to display a table subset. You can perform masking on:

- · A variable that has been previously selected on the View menu
- Only one variable at a time

Mask a variable by typing a mask argument in the variable name field and pressing **Enter**.

Result: All rows matching the mask argument appear.

If you append an asterisk (\*) at the end of the mask argument, all values starting with the argument display; if not, only the values that are equal to the argument display.

# **Sorting values**

When you select **Sort** on the action bar, the Sort pull-down menu displays.

```
******************
 Profile Reporting - Sort
 Select the variable on which the sort is to be
 performed with a "/" and specify the sort parameters if required.
 Userid
 VUPDFLT : _
 VUPAPLST : _
 VUPUNAME : _
 VUPUDATA : _
 VSPULOC : _
 VSPUPHON : _
 Order : _ (Descending : D, Ascending : A)
 (Default is A)
 Type : _ (Binary : B, Character : C, Numeric : N) (Default is C)
 Command ===>
 Enter F1=Help F12=Cancel
```

Use the Sort menu to specify a sort order for:

- A variable that was previously selected on the View menu
- · Only one variable at a time

### Sort by:

- 1. Typing a slash (/) in the variable field on which the sort is to be performed
- 2. Specifying the order: ascending (the default) or descending 3. Specifying the type: character (the default), binary, or numeric
- 3. Specifying the type: character (the default), binary, or numeric

and pressing Enter.

**Result**: The current profile table appears in the sort order that was specified.

**Note:** If you specify LASTDATE as the sort criteria, LASTTIME is appended to the sort.

## Printing the displayed table

When you select **Print** on the action bar, the Print pull-down menu displays.

```
********************
 Profile Reporting - Print
 Variables Length Alignment
 (L - C - R)
 Ùserid : 8 L
 VUPDFLT : 8 L
 VUPAPLST: 8 L
 VUPUNAME: 30 L
 VUPUDATA: 38 L
 VSPULOC : 34 L
 VSPUPHON: 19 L
 Send report to : (Select with a "/" )
 _ SYSOUT destination : (Def. : LOCAL) Class : (Def. : A)
  PDS : Member :
 Replace Member : (Y/N)(Def.:N)
 Logical record length (LRECL) : ___ (Usually 80 or 133)
Enter F1=Help F12=Cancel
  ******************
```

Use the Print menu to print the content of the table being displayed to SYSOUT or a partitioned dataset.

Print the table by:

- 1. Specifying the length and alignment of each field. Alignment values are generated when you access the menu, but you can change them. To ensure proper placement of the variable name on the header of the report to be generated, you can modify only variables that have data values greater than 8. Similarly, you cannot enter values that are less than 8.
- 2. Typing a slash (/) in the appropriate field.
- 3. Adding the following information to the menu: If you select SYSOUT:

- a. Specify the class (the default is A)
- b. Specify the destination (the default is LOCAL)

If you select PDS:

- a. Specify the dataset name
- b. Specify the member
- c. Specify whether or not you want to replace an existing member
- 4. Pressing Enter to print.

**Result**: The Print function builds a layout table and calls dialog KLVTKRPG. When the report is produced, a message indicates the number of written pages.

The resulting printed report reflects the mask, view, and sort parameters that you have previously selected.

**Note:** As with other menus in Profile Reporting, when you access the Print menu the table key (Userid or Groupid) is displayed. The rest of the variables are displayed according to your selections on the View menu.

## Displaying extract information

When you select **Info** on the action bar, the Info pull-down menu displays.

Use the Info menu to display information about the extract process. The Info menu shows the date and time of the last full extract and the last incremental extract. (The last incremental extract is the same as the last full extract if no incremental extract has been performed since the last full extract.)

# Displaying help

Panel and field level help is provided for Profile Reporting.

- To display help for a panel, move the cursor to a non-input field and press **F1**. A pop-up window displaying general panel help is displayed.
- To select field level help, position the cursor to the left of the selection and press Enter.

To display help for an input field, move the cursor to the input field and press **F1**. A pop-up window displaying help for that field is displayed.

You can select help from any Profile Reporting panel with F1. Pressing F1 on an input field provides context-sensitive help for that specific field; pressing F1 anywhere else on the panel displays general panel help. Help information appears in a pop-up window. When you finish viewing help, press **F12** to return to the previous panel, or press **F3** to exit Help.

## **Capturing data**

### Introduction

The data displayed during Profile Reporting is derived from an extract program that runs as a non-terminal dialog (NTD). To generate and capture that data, you must issue the NTD command along with the extraction dialog name.

## **KLSPREXT** dialog

To collect data, issue the following: NTD KLSPREXT 'FULL'

where:

NTD Is the CL/SuperSession command

**KLSPREXT** Is the extraction dialog that collects data from the table database

according to parameters found in SKLVPARM(KLSPREXU) and SKLVPARM(KLSPREXG). This dialog must run before you can use the

Profile Reporting panels.

FULL Indicates that all common profiles will be extracted

## **Usage notes**

- 1. By default, only common profiles that have been modified after the last execution of NTD KLSPREXT are extracted. However, if a group profile has been modified, all users profiles within that group are extracted even if the users profiles themselves have not been modified.
- 2. Do not include the NTD KLSPREXT command in SKLVCMDS(KLSSTART) because this will cause its execution after a system outage.

It is recommended that you schedule the extract dialog to run at non-peak hours through the use of System automation tools or through the use of the AT command.

For example, you can have System automation tools issue the F kls,NTD KLSPREXT command once a day for an incremental extract and the F kls,NTD KLSPREXT FULL command once a week for a full extract. Likewise, you can have the AT command issue the NTD KLSPREXT or NTD KLSPREXT FULL commands.

- 3. When you specify FULL, the extract tables are deleted and then recreated using the parameters found in SKLVPARM members KLSPREXU or KLSPREXG.
- 4. You must specify FULL if SKLVPARM members KLSPREXU or KLSPREXG are modified.
- 5. FULL is the default if
  - You are running KLSPREXT for the first time
  - · Extract tables do not exist
- 6. Examine TLVLOG messages for error and warning messages. (See "Extract messages" for examples of these messages.)

## Specifying variables

KLSPREXU and KLSPREXG contain all of the variables that are supported by KLSPREXT, accompanied by a short description at the end of each variable's line. A basic set of variables set to Y are provided. Only those variables set to Y are extracted by KLSPREXT.

Dialog KLSPREXT extracts the data from the table database and the NAM database. Before running KLSPREXT, you can:

- Edit RLSPARM(KLSPREXU) to specify the variables that you want extracted from the \*.USER.COMMON.PROFILE tables
- Edit RLSPARM(KLSPREXG) to specify the variables that you want extracted from the \*.GROUP.COMMON.PROFILE tables

#### •

#### Additional variables follow.

Control member	Variable	Description
KLSPREXU	VSPUNAME, VSPUPHON, VSPUINFO, VSPULOC	NAM variables
KLSPREXU	LASTDATE, LASTTIME, LASTTERM	Variables reporting the last access to CL/SuperSession by any user ID
KLSPREXU and KLSPREXG	VxPFETCP, VxPFETSM, VxPFETVS, VxPFETDT	VxPFEATR variables. The authorities for features CUT/PASTE, SEND MESSAGE, VIEW SESSION, and DIALOG TRACE are packed and saved in the VxPFEATR variable. KLSPREXT unpacks this variable and updates 4 different variables in the extract table. You can then pinpoint the specific feature that you want to extract, sort, mask, or view.

# Space requirements for the table database VSAM file

The extract table created by KLSPREXT will increase the in-use space of the table database by approximately 15% when the default extraction parameters are used; approximately 40% if all variables are specified. Make sure that your table database is large enough to accommodate this increase.

# Storage overload protection

The Profile Reporting facility has a built-in protection mechanism that prevents storage overload. The estimated total extended storage (e) is computed before the extract tables are loaded and the value is compared to the value specified in KLVSYSIN for QUIESCE(nn,X,F). When usage approaches the maximum extended storage value, the following occurs:

• If e is greater than 70% of nn, a warning message displays. You can then either continue working in the Profile Reporting facility or exit the facility.

- If e is greater than nn minus 5%, a message informs you that you must exit from the facility. You can then do either of the following:
  - Review a storage display and re-access Profile Reporting when usage decreases
  - Increase the storage value in KLVSYSIN and recycle

## Table database and NAM cleanup

CL/SuperSession's last access process lets you identify the date and time of the last access for each user. When a user signs on to CL/SuperSession, this process gathers information as follows:

- 1. Dialog KLSUINIE performs an ATTACH to dialog KLSLOG.
- 2. KLSLOG writes a record on an IPC queue.
- 3. Dialog KLSLOGDQ, by the use of the EVERY command, executes every 10 minutes to read from the queue and then update a permanent table with the user ID, date, time, and terminal ID.

If you have specified LASTDATE and LASTTIME in SKLVPARM(KLSPREXU), you can view LASTDATE data and then perform a sort to identify the profiles that you want to delete.

**Note:** LASTTIME is appended to the sort if you specify LASTDATE as the sort criteria.

# **Usage examples**

The following three examples show various uses of Profile Reporting.

- To display all users who belong to a certain group:
  - 1. Make sure that the VUPDFLT variable has been selected in SKLVPARM(KLSPREXU) before you execute extract dialog KLSPREXT.
  - 2. From the Profile Reporting Users table, press **F11**.
  - 3. Type U to the left of the group of your choice and press **Enter**.
- To display the last access date in descending order:
  - 1. Make sure that LASTDATE and LASTTIME have been selected in SKLVPARM(KLSPREXU) before you execute extract dialog KLSPREXT.
  - 2. From the Profile Reporting Users table, access the View pull-down menu.
  - 3. Select LASTDATE and LASTTIME so that they will appear on all other pull-down menus.
  - 4. Return to the Profile Reporting User's table.
  - 5. Select the Sort pull-down menu.
  - 6. Type a slash (/) in the LASTTIME field and a D (for descending) in the order field, and press **Enter**.

**Note:** LASTTIME is appended to the sort.

- To display all users with View authority:
  - 1. Make sure VUPFETVS has been selected in SKLVPARM(KLSPREXU) before you execute extract dialog KLSPREXT.
  - 2. From the Profile Reporting Users table, access the View pull-down menu.
  - 3. Select VUPFETVS so that it will appear on all other pull-down menus.
  - 4. Return to the Profile Reporting User's table.

- 5. Select the Mask pull-down menu.
- 6. Type an asterisk (\*) in the VUPFETVS field and press Enter.

# **Chapter 9. High Availability Option**

## Introduction

The CL/SuperSession High Availability Option provides two solutions to enhance the availability and manageability of IBM's CL/SuperSession.

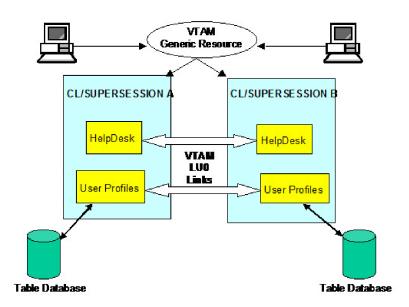


Figure 35. Two solutions provided by CL/SuperSession High Availability Option

# CL/SuperSession profile synchronization facility

This ability allows two or more copies of CL/SuperSession to maintain synchronized profile databases. Features include:

- A stand-alone facility that requires 'no modification' of standard CL/SuperSession code.
- Propagated updates to linked copies of CL/SuperSession at a user-specified interval (e.g. hourly).
- Automatic retry. If a remote CL/SuperSession is not available or an update does not complete successfully, it will be automatically retried until successful.
- Simplified configuration. Requires only a simple VTAM connection between CL/SuperSession address spaces.
- VTAM Generic Resource exploitation. In a SYSPlex environment, facilitates the use of VTAM Generic Resources for automatic load-balancing and enhanced availability.

# **CL/SuperSession MultiPoint HelpDesk**

Provides a single point of control for multiple copies of CL/SuperSession with the following features:

 Users of all connected systems can be managed by the HelpDesk facility on any one system.

- Commands can be issued to all connected systems from any HelpDesk.
- Broadcast messages can be targeted at groups across all connected systems.
- The standard 'Send Message' facility can send a message to a user on any connected system.
- 'View Session' and 'Transmit Screen' facilities work across all connected systems
- Changes to user details stored in the NAM file are propagated to all connected systems
- The HelpDesk facility on each copy of CL/SuperSession operates autonomously for maximum availability

A detailed Architecture between 2 Members (CL/SuperSession address spaces) of a HAO compound can look like this:

#### HAO configuration with 3 instances in a GR switchables or as a CLDST Path KLS\$VSMS KLSS STC on LPAR-A with CLSSA1 GR=CLSGR CICS,TSO etc **VTAM APPLS** SYS=HAO1 Logon CLSGR, ਰੂ CLSSB1 or CLSSA1 HAO1PHD - Helpdesk Focal Point HAO1PHXL **HAO1PHXS** HAO1PPSR **HAO1GTWY** Profile Profile Profile Command server Synchronisation RLSTDB **RLSNAM** XXXX LU0-connection over KLS\$SESS HAO3 RI STDB Profile Profile Profile RLSNAM Command serve Logon received yyyy HAO2GTWY HAO2PHXS HAO2PHXL HAO2PPRS **FocalPoint** CICS, TSO etc VTAM APPLS GR=CLSGR HAO2PHD - Helpdesk or CLDST Path S\$VSMS for KLS\$VSMS for switchables CLSSB1 KLSS STC on LPAR-B with CLSSB1 or CLSSA1 SYS=HAO2

Figure 36. Sample HAO configuration

From each HAO HelpDesk all users are available to be managed, regardless of which address space they are connected to.

The HAO application will update the related Tables Databases owned by each CL/SuperSession in the compound.

In this documentation Profile synchronization and the Multipoint HelpDesk are discussed separately though they are typically installed together.

## **Profile synchronization**

## **Update RLSCMDS**

The KLHCDLGH is the primary dataset member that needs to be reviewed for each CL/SuperSession STC.

The out-of-the-box installation scheme uses different run-time datasets for each HAO system (based on the HAO sequence number in KLS0CUST). For example, HAO1 would use RLS1CMDS, HAO2 would use RLS2CMDS and HAO3 would use RLS3CMDS. Utilizing separate datasets eliminates the need to modify the name of KLHCDLGH.

KLHCDLGH includes the dialog application and non-terminal dialog calls necessary to initialize the High Availability Option of HelpDesk.

Change HDACB1 to the ACB name chosen for the HelpDesk application. It should correspond to the name used in the HelpDesk APPLDEF. The name should also be defined in SYS1.VTAMLST with the other CL/SuperSession definitions.

### Example:

```
HDACB1 APPL AUTH=(ACQ, NVPACE), ACBNAME=HDACB1, PARSESS=YES
```

The entries that are commented out are not required for the HelpDesk installation, but are needed if HelpDesk is later configured with a remote system.

Customization is needed for the following parameters:

	Description	Value range
-VTPREF-	Entry point VTAM ACB names prefix	Up to 6 characters
-HAOPREF-	HAO identifiers common Global prefix	3 characters
-HAOSEQN-	Local HelpDesk HAO node sequence number	1 digit
-HAORXSN-	Remote HelpDesk HAO node sequence number	1 digit
-HAORYSN-	Remote HelpDesk HAO node sequence number	1 digit

```
DIALOG -HAOPREF--HAOSEQN-PHD KLHDLACB
DIALOG -HAOPREF--HAOSEQN-PPSR KPSRECV
DIALOG -HAOPREF--HAOSEQN-PHXL KLHXRECV
DIALOG -HAOPREF--HAOSEQN-PHXS KLHXCSVR
NTD KLHDLOGR /-HAOMODE-

* Start HelpDesk application
* Start profile receiver
* X-SYSTEM HelpDesk logon receiver
* X-SYSTEM HelpDesk command server
* Set HD LOGGER mode AGENT/FOCAL
```

For example, the KLS0CUST and KLS9CUST jobs would generate an application name of HAO1PHD for HAO1.

See KLHCDLGH for more customization parameters.

## System names

By default, each CL/SuperSession instance is named after the started task name (system variable &SYSJOB). This default can be changed by editing the dialog KLHSYSID.

The KLHCDLGH is renamed in the start member into CH%CDLG where % is the 1, 2 or 3 for one of the STCs on the same LPAR.

For example, HAO1CLSS would be CH1CDLG, HAO2CLSS would be CH2CDLG, and HAO3CLSS would be CH3CDLG.

For the Profile synchronization the following has to be added to one of the members:

AT ADD ID=KPSSEND DELAY=00:60:00 EVERY=00:60:00 CMD='NTD KPSSEND'

- This example would run the synchronization task every 60 minutes; the frequency of execution depends on the specific requirements of your installation.
- Ensure that CH&CDLG is included in the RLSCMDS (CH&START) member.
- Add the VTAM ACB AT%SPPSR to the VTAM major nodes. No LOGMODE or MODETAB needs to defined, the default is ISTINCLM MODETAB.

## Synchronization control table

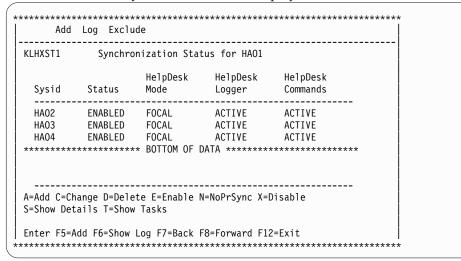
The following steps show how to enable or modify Profile Synchronization:

- The table database (RLSTDB) for each of the member CL/SuperSession address spaces must be identical before enabling synchronization. This may be accomplished by copying a master database with IDCAMS REPRO.
- Dialog KPSADM (option S from the HelpDesk Admin action bar option) should be invoked on each CL/SuperSession to create an entry in the profile synchronization control table to define the connection between the local sender tasks and the remote receiver tasks.

The following screenshot is just an example each system (CL/SuperSession HelpDesk) will have at least 5 KPS.\*\*.tables.

```
KPSADMS
        Profile Synchronization Entry
System ID..... HA02
Helpdesk Mode..... FOCAL
Status..... ENABLED
VTAM Applid on remote system
HOSTGATE..... HA02GTWY
Helpdesk Logon Receiver Applid.... HAO2PHXL
                                     (FOCAL only)
Helpdesk Command Server Applid.... HA02PHXS
Profile Synch Receiver Applid..... HA02PPSR
Local Hostgate Applid..... HA01GTWY
Last Send/Synch Date..... 04/30/2016
Last Send/Synch Time..... 20:27
Last Receive Date..... 04/30/2016
Last Receive Time...... 19:37
PF12 return
******************
```

- The example above shows a sample entry for HAO2 in HAO1's control table.
   Note that the HelpDesk connections are also defined here. See the following section for details.
- Note that only updates after the specified synch time (that is, 20:27 on 04/30/2016 in the above example) will be sent to the remote CL/SuperSession.
- Once added, the entry for HAO1 will be displayed as shown below:

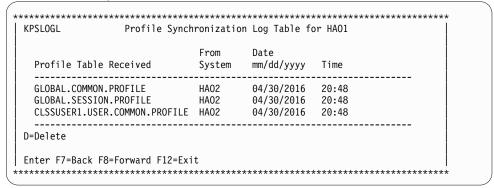


 By default all tables in the table database except those specified in the exclude list will be candidates for synchronization. Select the Exclude action bar item to edit the synchronization exclude list.

	Added or	Last Modi	fied	İ
Mask	Date	Time	Userid	
EXTRACT.*	04/21/16	17:23:29	DEFAULT	
HD.*	04/21/16	17:23:29	DEFAULT	İ
HDMON.*	04/21/16	17:23:29	DEFAULT	İ
KLHXHBT.*	04/21/16	17:23:29	DEFAULT	İ
KPS.*	04/21/16	17:23:29	DEFAULT	İ
SYSTEM.*	04/21/16	17:23:29	DEFAULT	
TIM.*	04/21/16	17:23:29	DEFAULT	
TOOLKIT.*	04/21/16	17:23:29	DEFAULT	
****** BOTTOM	1 OF DATA ******	******	*****	
=Add D=Delete				

- The default entries in the exclude list are shown above.
- The wild card "\*" is only valid as the last character in a mask. To exclude a user's profile tables from synchronization, add an entry with a mask of *userid*.
- When initially added, the synchronization table entry will be DISABLED (that is, not available for profile synchronization).
- The entry must be ENABLED with the 'E' action code before profile synchronization can start.
- If the remote receiver is not available, the sender will try to reconnect five times at one minute intervals; if still unsuccessful, the sender task will abandon the attempt to synchronize with this target system for this execution.

- The Last Receive Date and Time fields will be set by the local receiver task when the sender task on SYS2 sends a batch of updates.
- A log table is updated with details of each profile table received. This can be displayed from the above panel with PF6 (F6=Show Log). Details are also written to the TLVLOG sysout file.



Entries over a month old are automatically deleted from this table when the KPSSEND task is started.

## MultiPoint HelpDesk

## HelpDesk mode

- A MultiPoint HelpDesk implementation consists of one or more FOCAL HelpDesk's and optionally one or more AGENT HelpDesk's.
- A FOCAL HelpDesk is connected to all other HelpDesk instances (FOCAL and AGENT) and provides all the functionality of the MultiPoint HelpDesk across all connected systems.
- An AGENT HelpDesk is connected to each FOCAL HelpDesk but does not provide any HelpDesk functions for other systems.
- It is recommended that at least two FOCAL HelpDesk's be configured in order to avoid having a single point of failure.
- The use of AGENT HelpDesk's reduces the number of VTAM connections required and reduces network traffic and system overheads.

# Synchronization control table

• Remote HelpDesk's must be defined in the Profile Synchronization table as described in the previous section, and must be ENABLED for synchronization to be initialized.

LHXST1	Synchron	ization Sta	tus for HAO1	
		HelpDesk	He1pDesk	
Sysid	Status	Mode	Logger	Commands
HA02	ENABLED	FOCAL	ACTIVE	ACTIVE
HA03	ENABLED	FOCAL	ACTIVE	ACTIVE
HA04	ENABLED	FOCAL	ACTIVE	ACTIVE
HA05	ENABLED	FOCAL	ACTIVE	ACTIVE
HA06	ENABLED	FOCAL	ACTIVE	ACTIVE
*****	******	BOTTOM OF	DATA ******	******
	nange D=Delet tails T=Show		N=NoPrSync X=	Disable

- HelpDesk synchronization may be enabled without enabling profile synchronization; this is set by the 'N=NoPrSync' action code and is indicated by a status of NOPRSYNC.
- The 'D=Disable' option will disable both Profile and HelpDesk synchronization.
- The following features are available from each FOCAL HelpDesk for users on any connected system with either a FOCAL or AGENT HelpDesk:
  - Show details of users and their virtual sessions
  - Send messages to user
  - Transmit screens to user
  - Send Broadcast messages
  - Cancel users and/or sessions
  - Force users and/or sessions
  - View sessions

# **KLHTBCLN: HelpDesk Table Cleanup Routine**

- A user's details are added to the HelpDesk table (HD.USERTAB) at logon by dialog KLHLOGON.
- If the user logs off in the standard manner with PF3 or a trigger that invokes KLSEXIT, and there are no 'disconnected' active sessions, then dialog KLHLOGFF is invoked to delete the user's entry from the HelpDesk table.
- If the user quits CL/SuperSession in any other way, for example, by closing an emulation session or powering off a terminal or p.c., then the HelpDesk entry is not deleted.
- If a HelpDesk action is selected for a user who is no longer logged on, a HelpDesk popup will indicate this and the users' entry will be deleted from the HelpDesk table.
- Dialog KLHTBCLN skips through the HelpDesk table and checks the status of each user on the local system in turn (using the VSSUSRST function) and deletes those who are no longer logged on. In a MultiPoint implementation, a LOGOFF notification is also sent to other FOCAL HelpDesk's.
- In the standard HelpDesk this dialog is run automatically every 30 minutes.
- In the MultiPoint HelpDesk it is not started automatically, but must be started with a command which may be added to RLSCMDS(KLHCDLGH):

NTD KLHTBCLN nn

where nn is the interval in hours between clean-up cycles, the default being 4 hours and the minimum being 1 hour. The dialog will continue to run at the specified interval until CL/SuperSession is shut down.

- In order to minimize overheads, it is recommended that the clean-up cycle be run as infrequently as possible. One option is to run it once daily overnight, adding the following command to RLSCMDS(KLHCDLGH):
  - AT ADD ID=KLHTBCLN TIME=02:00:00 CMD='NTD KLHTBCLN 24'
- Note that the above command will start KLHTBCLN at 02:00:00 but the first clean-up cycle will start at 02:00:00 a day later.
- Dialog KLHTBCHK can be invoked from the HelpDesk Admin panel by selecting the 'Clean-up Local Users' option, and performs the same function as KLHTBCLN but runs immediately for a single cycle and then terminates.

# **Cross-System Monitor facility**

As part of HelpDesk synchronization, the Monitor facility is modified to display usage data for all connected systems.

LHXMON1		MultiPoi	nt He	1pdesk M	lonit	or on HAO	l	04/30/16	21:14
Sysid	Users	Sessions				-Storage d Carved			ated Time
HA01	1	 0	4%	 16%	7%	 16%	0K	04/30/16	21:02
HA02	1	0	4%	16%	7%	17%	0K	04/30/16	21:11
	2		4%			16%		04/30/16	21:11
HAO4	1	0	9%			32%		04/30/16	07:12
HA05	0	0	9%	29%	6%	28%	0K	04/30/16	07:12
HA06	0	0	9%	30%	6%	27%	0K	04/30/16	07:13
*****	****	*****	****	BOTTOM	OF DA	\TA ****	*****	*****	*****
=Show De	tails I	D=Delete							

The details display for each system includes usage statistics for each monitored virtual terminal pool.

HMNVT1	Status	Details for	HA02			
Users		1	Sessions	0		
Primary S	torage Use	ed 4%	Carved	16%		
Extended	Storage Us	sed 7%	Carved	17%		İ
	Vir	rtual Termina	l Pools			
Poo1	Total	Active	Threshol	ds		
Name	Vterms	Sessions	Warning	Critical	Status	İ
MODEL3	10	0	N/A	N/A	N/A	
MODEL4	10	0	N/A	N/A	N/A	
MODEL5	10	0	N/A	N/A	N/A	
MODEL9	10	0	N/A	N/A	N/A	İ
TS0ESA	10	0	N/A	N/A	N/A	İ
TS0P00L	10	0	N/A	N/A	N/A	İ
L=List Sess	ions		•	•	•	i
Fnter PF7=B	ack PF8=Fo	rward PF11=P	rint PF12=	Fxit		i

### **Heartbeat monitor**

### Introduction

- The Heartbeat task (KLHXHBT) monitors the connections between a local HelpDesk and all connected remote HelpDesk's.
- The Heartbeat task is optional and can be run only on a FOCAL HelpDesk system.
- It should be started by adding the following command to RLSCMDS(KLHCDLGH):

AT ADD ID=KLHXHBT DELAY=00:05:00 CMD='NTD KLHXHBT'

- The five-minute delay is required to allow the KLHDLOGR task to initialize.
- By default it will start a 'heartbeat cycle' every 15 minutes, but this can be modified by passing a parameter with the NTD command, that is, NTD KLHXHBT nn where "nn" is the interval in minutes.
- A 'Connections' item is added to the action bar on the main HelpDesk panel (KLHDISP1) and can be selected to display the status of monitored connections as shown below.

KLHXHBTL Last updat		Synch Connec 9:03 on 04/3			18:42:00 (minutes) 15	
·	Helpde:	sk Logon	Helpdo	esk Cmds	Profile Synch	
Sysid	Sender	Receiver	Sender	Receiver	Receiver	
HA02	n/a	ACT/S	n/a	ACT/S	ACTIV	
HA01	ACTIVE	ACTIVE	ACTIVE	ACTIVE		
HA03	ACTIVE	ACTIVE	ACTIVE	ACTIVE		
HAO4	ACTIVE	ACTIVE	ACTIVE	ACTIVE		
HA05	ACTIVE	ACTIVE	ACTIVE	ACTIVE		
HA06	ACTIVE	ACTIVE	ACTIVE	ACTIVE		
*****	*****	***** BOTT	OM OF DATA	A *******	******	
S=Show Det	tails					

### Heartbeat table

Table 8. KLHXHBT.TABLE- key hxsys: system id.

Variable	Task	LOCAL FOCAL	REMOTE FOCAL	REMOTE AGENT	Meaning
hxlstat	KLHXSEND	n/a	ACTIVE	ACTIVE	Logon Sender
hxsend	KLHXRECV	ACT/S	ACTIVE	(agent)	Logon Receiver
hxcstat	KLHXCREQ	n/a	ACTIVE	ACTIVE	Command Requester
hxcreq	KLHXCSVR	ACT/S	ACTIVE	ACTIVE	Command Server
hpsend	KPSRECV	ACTIV	ACTIVE	ACTIVE	Profile Receiver

### Logon sender

LOCAL: the status will always be 'n/a' because sender tasks are associated with the remote target systems.

Remotes: The Logon Sender (NTD KLHXSEND) on each remote system should have an active VTAM session with the Logon Receiver (KLHXRECV dialog ACB) on the local system. If this session is active the status is set to ACTIVE, otherwise it will be **INACTIVE**.

### Logon receiver

LOCAL: the status is set to the VTAM status of the KLHXRECV dialog ACB, which should be ACT/S.

Remote FOCAL: the status is set to ACTIVE if there is an active instance of KLHXSEND on the local system for that target system - indicated by the existence of the IPC queue 'KLHXSEND.&hxsys..TIMERQ'. It will otherwise be INACTIVE.

Remote AGENT: the status is set to '(agent)' to indicate that it is not relevant as Agent HelpDesks do not receive logon data from other systems.

### **Command requester**

LOCAL: the status will always be 'n/a' because the requester tasks are associated with the remote target systems.

Remotes: the Command Requester (NTD KLHXCREQ) on each remote system should have an active VTAM session with the Command Server (KLHXCSVR dialog ACB) on the local system. If this session is active the status is set to **ACTIVE**, otherwise it will be **INACTIVE**.

#### **Command server**

LOCAL: the status is set to the VTAM status of the KLHXCSVR dialog ACB, which should be **ACT/S**.

Remotes: the status is set to **ACTIVE** if there is an active instance of KLHXCREQ on the local system for that target system - indicated by the existence of the IPC queue 'HX.&hxsys..CMDQ'. It will otherwise be **INACTIVE**.

### **Profile receiver**

LOCAL: the status is set to the VTAM status of the KLHXCSVR dialog ACB, which should be **ACTIVE**, unless the Heartbeat check happens to coincide with a synchronization cycle, in which case it will be **ACT/S**.

Remote: This will be 'N/A'.

### Profile sender

The status of the Profile Sender (NTD KPSSEND) is not included in the Heartbeat table. It cannot be monitored because it is active only during the execution of a synchronization cycle.

# NTD commands to start and stop activities

The following table provides an overview of the commands available to manage the services around the 'High Availability Option'. The sysid in the following table is used as an internal CLSS sysid name.

Table 9. NTD Commands for Services of High Availability Option

Dialog	START/ STOP	CH%DCLG STARTUP	Description
KLHDLOGR	START	Yes	Start of the HelpDesk Logger within the Start-up Deck
			NTD KLHDLOGR '/FOCAL' starts FOCAL
			NTD KLHDLOGR 'RESTART/FOCAL' warm start
			NTD KLHDLOGR 'RESTART/' warm start AGT
KLHXSTOP	Stop		Will stop the HelpDesk Logger
			NTD KLHXLOGR

Table 9. NTD Commands for Services of High Availability Option (continued)

Dialog	START/ STOP	CH%DCLG STARTUP	Description
KLHTBCLN	START	Yes	HelpDesk table clean-up
			At Start-up with an AT ADD command every 24 h
KLHTBCHK	Between		This is a dialog to clean up local HD.USERTAB and can be called every reason and time.  NTD KLHTBCHK
KLHXCREQ	Start	yes	Start of the X-system command server
			At Start with an AT ADD command with a delay of 2 Minutes local and 5 minutes remote
			can be started after stop with KLHXCSTP with a modify command where sysid is each member of HAO compound  NTD KLHXCREQ sysid
KLHXCRST	Stop		Stopping the Command server with
			NTD KLHXCRST sysid
KLHXCSTP	Stop		Stopping the x-ystem command server with  NTD KLHXCSTP sysid
KLHXCSVR	Start	Yes	Start of the X-system command server
			Normally started as an AT ADD command with a delay of 2 to locals and 5 to x-system STC's.
			can be started after stop with KLHXCSTP with a modify command DIALOG application KLHXCSVR
KLHDMON	Start	Yes	Monitor for resource Utilization and alerting
			Started with an AT ADD command and a delay of 5 minutes.
			No known start options
KLHXHBT	Start	yes	Heartbeat facility to get what systems are up
			With an AT ADD and a Delay of 5 at startup  NTD KLHXHBT nn
			When default interval should be changed from 15 minutes to nn.
KLHXHBTX	Stop		Stops the Heartbeat probe  NTD KLHXHBTX
KLHXSEND	Start		Log on sender to x-remote system when user logon
KEIDISEIND	Juit		Normally started as an AT ADD command with a delay of 2 to locals and 5 to x-system STC's.
			can be started after stop with KLHXSSTP with a modify command NTD KLHXSEND sysid
KLHXSSTP	Stop		To stop the x-remote system logon sender  NTD KLHXSSTP sysid

Table 9. NTD Commands for Services of High Availability Option (continued)

Dialog	START/ STOP	CH%DCLG STARTUP	Description
KPSRSTRT	Start		Profile Synchronization  Stop and Restart KPSSEND Task at regular interval  NTD KPSRSTRT as every command
KPSRUN	Between		Initiate® a synch cycle Start Profile Synch when KPSSEND already active NTD KPSRUN
KPSSEND	Start	Yes	Start of the Profile Synch  Normally started as an AT ADD command with Delay and Every.

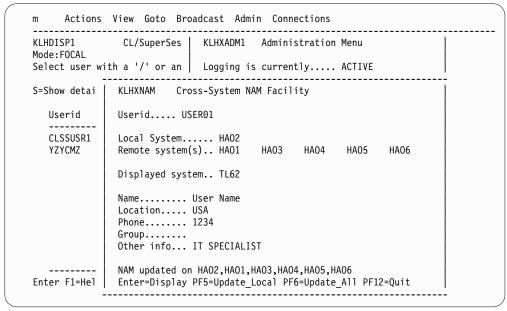
## NAM update facility

## Introduction

This is a facility to allow the simultaneous update of the NAM files on all connected systems when HelpDesk Synchronization has been implemented. The data stored in the NAM includes user details (name, location etc.) as used by the HelpDesk facility.

# **Usage notes**

The NAM Update facility can be invoked from option N on the HelpDesk Admin menu:



- This calls dialog KLHXNAM which allows NAM values to be displayed for any user and any connected system (ENTER).
- Note that this also allows either just the local NAM to be updated (PF5) or all connected NAM files to be updated (PF6).

The NAM Update Facility can also be invoked from the HelpDesk display with the 'U' action code.

```
LHUNAM1 Update User Details for USER01
Logged on to..... HA02
 Connected system(s).. HA01 HA03 HA04 HA05 HA06 Connected system(s)..
 Connected system(s)..
 Name..... User Name
 Location.... USA
Phone..... 1234
 Group.....
 Other info... IT SPECIALIST
 PF6=Update PF12=Quit
```

- This calls dialog KLHUNAM1 which displays details for the selected user and allows them to be modified and written to all connected systems (PF6).
- When a user updates his/her personal information by selecting Options/Personal Information from the CL/SuperSession main menu action bar, or when prompted to do so by the HelpDesk logon dialog, dialog KLSUINF1 is invoked. This will also propagate updates to all connected systems.

## CL/SuperSession send message facility

### Introduction

This standard 'Send Message' option invoked from the 'Features' choice on the CL/SuperSession action bar or with a trigger has been enhanced to detect which system the target user is on and sends the message to the appropriate system.

# Usage notes

If the user is on a remote system, the message popup will not include the usual reply section, but will allow a reply popup to be invoked with PF5.

```
KLGXMS21
                 Message Sent by USER02
                                                 07:02:29
                                                     02/19/16
 meeting moved to 4:30 -
 can you still attend?
  F5=Reply F12=Cancel
```

# View screen facility

A new authority level has been implemented for the Helpdesk View Screen facility as follows:

N Not authorized

P Requires user permission

Y No permission required

The 'V' action code on the HelpDesk user details display invokes the 'View Session' facility which is enabled only for users logged on to the same CL/SuperSession region.

Using the 'V' action code on the HelpDesk menu allows the HelpDesk user to view a user's physical screen (that is, whatever is currently displayed on the user's terminal or emulation session) if the user is logged on to the same region as the HelpDesk.

Authorized HelpDesk users will have the option to request the user's permission or view without requesting permission.

# Chapter 10. The HelpDesk

### Introduction

This facility has three main features:

- **HelpDesk**: Provides you with a central point of control to monitor and perform actions against user and virtual sessions.
- Monitor: Enables you to monitor CL/SuperSession resources via color-coded status lights.
- **Cross-system Operator**: Enables you to issue commands and receive system responses.

## **Using the HelpDesk**

## Logging on to the HelpDesk feature

When you first log on to CL/SuperSession after you have installed the HelpDesk facility, an Update Personal Information panel appears. Enter the appropriate information in the fields provided on this panel and press **Enter**.

To log on to the HelpDesk feature, select the HelpDesk session from the CL/SuperSession main panel.

**Result**: A HelpDesk message appears, informing you that the HelpDesk tasks are being initialized.

Press any key to continue.

Result: The main HelpDesk panel appears.

# Main HelpDesk panel

The main HelpDesk panel displays a scrollable list of all active CL/SuperSession users, sorted by user ID. You can use this panel to:

Display user details

- View a user's terminal display
- Send a message to a user
- · Cancel or force a user

For information about using the View pull-down menu to limit the list of active users on the main HelpDesk panel, see "Using the View Filter".

### Displaying user details

#### Introduction:

The HelpDesk Details panel allows you to view detailed information about a specific user and a list of the user's active sessions. You can use this panel to:

- · View user virtual sessions
- · Cancel user sessions
- View a summary of sessions for users logged on to virtual terminals, virtual terminal pools, or applications

### Accessing user details:

To display details for a user, enter an S (Show details) in the input field provided on the main HelpDesk panel.

**Result**: The HelpDesk Details panel appears.

#### Viewing user virtual sessions:

To view a user's virtual session:

1. Enter the V (View) action code next to the virtual session you want to view. **Result**: The Start Session View pop-up appears.

	·+
	KLHSSVW1 Start Session View
	Specify a Userid and Session and press ENTER
	UseridUSER03
	AND
	Session HELPDESK
	(when viewed screen displayed hit PF4 to list options)
	ENTER F1=He1p F5=Review F12=Cancel
(	

#### 2. Press Enter.

Result: A message is sent to the user asking for permission to view the virtual session.

- If the user grants permission, the virtual session appears.
- If the user does not grant permission, a message appears informing you that your request has been denied.
- 3. To see a list of options from the virtual session, press F4.

Result: The Session View Options pop-up appears.

```
Session View Options
 ENTER: Next Screen
 PF2 : Show Details PF3 : Exit
 PF5 : Save Screen PF6 : Print Screen
 PF7 : Scroll Up PF8 : Scroll Down
 PF10 : Scroll Left PF11: Scroll Right
```

You can perform the following actions on the virtual session:

- · Save or print the screen show
- · User details
- Scroll up, down, right, and left

To stop viewing a virtual session, press F3.

Result: The HelpDesk facility notifies the user that you are no longer viewing the session.

#### Saving viewed screens:

To save a user session screen for future reference, press F5 from the Session View Options panel.

**Result**: The HelpDesk notifies you that the screen is saved.

Screens are saved until you delete them.

### Viewing and deleting saved screens:

To view saved screens:

- 1. Select the Goto pull-down from the action bar.
- 2. Enter a V (View) in the field provided.

**Result**: The Saved Screen List appears.

KLHSPDS1 Saved Screen List	
S=Show Screen D=Delete	
Date Time Userid Terminal Session AID Key	
_ 12/14/2016 16:16:12 USER03 ATERM484 HELPDESK ENTER ************************************	*****
Enter F1=Help F7=Back F8=Forward F12=Cancel	

3. Enter an S (Show screen) next to the screen you want to view.

**Result**: The saved screen appears.

To delete saved screens, enter a D (Delete) in the field provided on the Saved Screen List panel next to the screen you want to delete.

**Result**: The HelpDesk notifies you that the deletion was successful.

#### Printing viewed screens:

To print viewed screens:

1. Press **F6** from the Session View Options panel.

**Result**: A HelpDesk message appears informing you that the screen was printed.

Note: If you have not defined a default VTAM printer, the Printer Name pop-up panel appears.

2. Specify a printer name in the field provided.

### Specifying a default printer:

To specify a default VTAM printer:

- 1. Select the Goto pull-down from the action bar.
- 2. Enter a P (Set default printer) in the field provided.

**Result**: The Printer Name pop-up appears.

```
KLHPRTP1 Printer Name
Enter VTAM printer name and press ENTER
VTAM printer.....
Save to your profile..... N (Y/N)
Enter F1=Help F12=Cancel
```

- 3. Enter the printer name in the VTAM Printer field. If you want to save the printer to your CL/SuperSession profile, enter Y in the field provided.
- 4. Press Enter.

**Result**: The printer name is saved to your profile.

5. Press **F12** to cancel the Printer Name pop-up.

For more information about specifying a VTAM printer name, see the IBM CL/SuperSession for z/OS V2.1 Customization Guide.

### Displaying user details from a viewed screen:

To display details for a session:

Press F2 from the Session View Options panel.

**Result**: The Session View User Details pop-up appears.

```
Session View User Details
Userid..... USER03
Terminal.... ATERM495
Date..... 12/14/16
Time..... 15:55:12
AID Key.... ENTER
Name..... Jim Jones
Location.... Santa Monica
Phone..... x5555
```

You can use this panel to see detailed information about the user's screen you are viewing.

### Canceling sessions:

To cancel a user's session:

1. Enter a C (Cancel) next to the session you want to cancel on the HelpDesk Details panel.

**Result**: The Confirm Command pop-up appears.

2. Enter a Y (Yes) to proceed, N (No) to cancel the action.

For more information on the cancel option, see the VCANCEL command in the CL/SuperSession Operator's Guide.

### Viewing a summary of sessions:

The HelpDesk allows you to display the number of users and sessions for each:

- Virtual terminal
- Virtual terminal pool
- Application

Enter the appropriate action code next to a session on the HelpDesk Details panel:

- To view a virtual terminal session summary.
- P To view a virtual terminal pool session summary.
- A To view an application session summary.

#### Result: The Virtual Session Summary panel appears.

```
KLHVTRS1 Virtual Session Summary

Virtual Sessions for Virtual Terminal CLSS1234

Number of Users..... 1

Number of Sessions... 1

Do you want to list all sessions... (Y/N)

Enter F1=Help F11=Print F12=Cancel
```

To list all the sessions for each virtual terminal, virtual terminal pool, or application, enter a Y (Yes) in the field provided.

**Result**: The List of Sessions panel appears.

**Note:** You cannot view a summary of sessions for users logged on to the remote CL/SuperSession.

You can use this panel to cancel or view the sessions listed.

- To view a session, enter a V (View) next to the session you want to view. For more information about viewing sessions, see "Viewing a User's Terminal Display".
- To cancel a session, enter a C (Cancel) next to the session you want to cancel. For more information about canceling sessions, see "Canceling sessions".

### Viewing a user's terminal display

#### Introduction:

The HelpDesk feature allows you to view a user's physical terminal display, or active session, from the main HelpDesk panel.

**Note:** You cannot view a user's terminal display if the user is logged on to the remote CL/SuperSession.

### Viewing a user's terminal display:

To view a user's terminal display:

1. Enter the V (View) action code next to the user's terminal you want to view.

**Result**: The View User's Terminal Display pop-up appears.

```
KLHVIEW1 View User's Terminal Display
Userid......USER03
(When viewed screen displayed press PF4 to list options)
Enter F5=Review F12=Cancel
```

#### 2. Press Enter.

Result: A message is sent to the user asking for permission to view the terminal display.

- If the user grants permission, the user's terminal display appears.
- If the user does not grant permission, a message appears informing you that your request has been denied.
- 3. To see a list of options from the viewed terminal display, press F4.

**Result**: The Session View Options pop-up appears.

From the viewed session you can:

- Save or print the screen
- · Show user details
- Scroll up, down, right, and left

To stop viewing a user session, press F3, or Enter.

For information about saving and printing a viewed active session screen, see "Displaying User Details".

### Sending messages to users

#### Introduction:

The HelpDesk facility enables you to send messages to users in two ways. You can send a message to an individual user, or you can send a message to a group of users.

#### Sending a message to a user:

To send a message to a user:

1. Enter the M (Message) action code next to the user you want to send a message

**Result**: The HelpDesk Send Message panel appears.

/ +	+
KLHDMSG1 Send Message	
Send message to USER02	
Reply required N	
Enter F1=Help F2=Clear F12=Cancel	
+	+

- 2. Enter the message text in the lines provided.
- 3. Press Enter to send the message.

Note: If the recipient of the message is connected to the local CL/SuperSession, and you require a response to the message, enter a Y (Yes) in the Reply Required field.

### Sending a broadcast message:

The broadcast message facility allows you to send a message to a group of users based on the following criteria:

- · User ID
- · Terminal ID
- · Session ID
- Virtual terminal pool
- Application
- Group
- System

To send a broadcast message:

1. Select the Broadcast pull-down menu from the action bar.

Result: The Broadcast Message pull-down appears.

+   KLHBRC11 Broadcast M	lessage	+
Send message to ONE   (use * as wildcard)	of the following groups	
Terminal	Vterm pool Application BCGROUP	
System SYSA		
	ear F12=Cancel	
+		+

2. Select your target group by entering the criteria into the appropriate fields.

Note: The broadcast facility allows you to send a broadcast message to only one target group at a time.

**Result**: The HelpDesk notifies you how many users received the message.

3. Press **F12** to cancel the notification message.

### Canceling and forcing users

#### Canceling a user:

To cancel a user:

- 1. Enter the C (Cancel) action code next to the user you want to cancel. **Result**: The Confirm Command pop-up appears.
- 2. Enter a Y (Yes) to proceed, N (No) to cancel the action.

For more information about the cancel option, see the VCANCEL command in the CL/SuperSession Operator's Guide.

### Forcing a user:

If you attempt to cancel a user and the cancel action code is unsuccessful, you can use the Faction code to force a user's session by completing the following steps.

- 1. Enter the F (Force) action code next to the user's session you want to force. **Result**: The Confirm Command pop-up appears.
- 2. Enter a Y (Yes) to proceed, N (No) to cancel the action.

For more information about the force option, see the VFORCE command in the CL/SuperSession Operator's Guide.

### Using the view filter

#### Introduction:

The HelpDesk feature allows you to filter the list of active users displayed on the main HelpDesk panel. You can use the view filter to limit the list of active users to a particular group or location. You can also include multiple parameters to build a filter argument.

#### Accessing the view filter:

To access the view filter on the main HelpDesk panel, select the View pull-down from the action bar.

**Result**: The View Criteria pull-down menu appears.

++	
KLHTBVW1 View Criteria	
Userid	
(above selections permit * wildcard)  After Date and/or time	
OR (mm/dd/yy) (hh:mm) Before Date and/or time	
To reset, enter a '/' RESET	
Enter F1=Help F12=Cancel	
\	

### Specifying view criteria:

You can filter the list of users based on the following criteria:

- User ID
- · Terminal ID
- CL/SuperSession group ID
- User name
- · Location
- Log on date and time

To edit the view criteria argument:

- 1. Enter one or more parameters in the input fields provided.
- 2. Press Enter.

**Result**: A message notifies you that the view criteria has been updated.

### Resetting the view criteria:

The selection criteria argument does not reset itself automatically until you log off the HelpDesk. If you edit the argument by including a new parameter, that parameter is incorporated into the argument. If you change an existing parameter, only that parameter is updated in the argument.

To reset the view criteria argument, enter a / in the Reset field on the View Criteria panel.

Result: The view criteria is reset.

## Monitoring CL/SuperSession resources

The Monitor feature enables you to monitor CL/SuperSession resources from a single panel, and informs you with status lights whether your system is operating normally, or whether a threshold has been exceeded.

The Monitor panel displays status for:

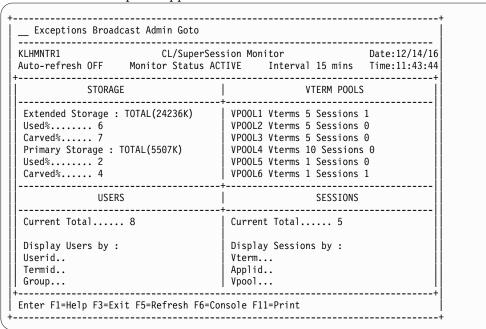
- CL/SuperSession storage (primary and extended)
- User-defined virtual terminal pools
- · Current total of active users
- · Current total of active sessions

**Note:** The Monitor facility only displays data for the local CL/SuperSession.

## Accessing the Monitor panel

To access the Monitor panel, select the Switch to Monitor option from the Goto pull-down menu.

**Result**: The Monitor panel appears.



To return to the HelpDesk main panel, press F3 or select the Switch to HelpDesk option from the Goto pull-down menu.

# **Exceptions**

An exception is an event that meets or exceeds a pre-specified threshold. If an exception occurs, the HelpDesk facility:

- Sends a message to all HelpDesk users with authority to receive alerts
- Logs an exception in the exception history table
- Writes a message to the TLVLOG (CL/SuperSession log file)

Sends a WTO message to the MVS<sup>™</sup> console

Note: WTO messages prefixed with CLAF001 are intended for recognition by an automated operation package, such as AF/OPERATOR. You can suppress these messages by commenting out the statement below the WTO: label in -RHILEV-.RLSPNLS(KLHDMNTX).

For information about monitoring exceptions, see "Monitoring Exceptions".

# Using the monitor feature

### Status indicator line

The status indicator line provides you with the following information:

- · Auto-refresh status and interval
- · Date and time of the last refresh
- · Monitor status

To modify auto-refresh status (turn it off or on), see "Setting Thresholds".

To modify monitor status, or to change the refresh interval, see "Setting Thresholds".

## Status indicators

A status indicator is a color bar that displays performance data, making it possible for you to quickly view the status of your CL/SuperSession resources. Performance is measured against user-defined thresholds.

When a status indicator changes, the Monitor feature alerts you that a threshold has been met or exceeded. For example, when a status indicator changes from green to red, you know that a condition has changed from normal to critical.

The meaning of the status indicator colors are shown in this table.

Color	Status
Green	Normal.
Yellow	A potential problem exists. A warning threshold was met or exceeded.
Red	A critical problem exists. A critical threshold was met or exceeded.
Turquoise	This item is idle. The task is not currently running, or there is no data available to report.

Note: If your monitor does not have the capability to display extended attributes, status indicators (or color bars) do not display

For information about setting thresholds, see "Setting Thresholds".

### Monitoring storage

This portion of the Monitor panel displays the total amount of primary and extended storage allocated to the local CL/SuperSession. For both primary and extended storage, the panel includes the percentages of the storage which is used and carved.

For more information about CL/SuperSession storage, see the IBM CL/SuperSession for z/OS V2.1 Customization Guide.

### Monitoring virtual terminal pools

This portion of the Monitor panel enables you to view data for six user-defined virtual terminal pools, sorted alphabetically.

For each virtual terminal displayed, the Monitor panel shows:

- Name of the virtual terminal pool
- Number of virtual terminals in the pool
- Number of sessions within the virtual terminal pool

Note: CL/SuperSession does not provide any default thresholds for virtual terminal pools.

For information about adding virtual terminal pools or modifying threshold values, see "Setting Thresholds".

### Monitoring users

This portion of the Monitor panel monitors the total number of active users on the local CL/SuperSession.

**Note:** Each user logged on to the HelpDesk facility counts as an additional CL/SuperSession user and is included in the Current Total field shown on the main Monitor panel.

You can select logged-on users for display. Specify the users you want to see by entering a specific or generic user ID, physical terminal ID, or CL/SuperSession group in the appropriate field. Specify only one of the three criteria.

You can use the wildcard character (\*) to specify a generic name. For example, if you specify TD\* as the user ID, then a list of all the user IDs beginning with TD appears. If you specify L616\* as the physical terminal ID, then a list of all the physical terminal IDs beginning with L616 appears.

You can perform the same functions on the Monitor panel that you can perform on the main HelpDesk panel. For information about these actions, and how to perform them, see "Using the HelpDesk Feature".

### Monitoring sessions

This portion of the Monitor panel monitors the total number of sessions on the local CL/SuperSession.

To select sessions for display, specify a complete virtual terminal name, application name (ACB name), or terminal pool name in the field provided.

Note: Generic names are not accepted.

**Result**: The Session List panel appears.

For instructions on viewing sessions, and for more information about actions you can perform on this panel, see "Using the HelpDesk Feature".

## Monitoring exceptions

### Introduction

The Monitor feature allows you to view a list of exceptions generated for each met or exceeded threshold that the HelpDesk facility monitors on an Exception History panel. This panel can help you view trends in CL/SuperSession resource usage and meet your service level objectives.

## Accessing the Exception History panel

To access the Exceptions History panel:

• Select the Exceptions pull-down from the action bar on the Monitor panel.

**Result**: The Exception History panel appears.

## **Exception messages**

When a threshold has been met or exceeded, the HelpDesk facility issues an exception alert to each HelpDesk user with authority to receive alerts. Although you must be logged on to CL/SuperSession to receive an exception alert, you do not have to be logged on to the HelpDesk facility. If you are a HelpDesk Administrator, you can set alert authority for users on the HelpDesk User Authorities panel.

For more information about administrative functions, see Appendix A, "Administrative Functions".

**Note:** You can disable alert notification for an exception by entering No in the Enable Alerts field on the Add VPOOL Monitoring panel.

### Acknowledging and deleting exceptions

To acknowledge an exception:

Select the Exceptions pull-down from the action bar on the main Monitor panel.
 Result: The Exception History panel appears.

- 2. Enter the A (Acknowledge) action code next to the exception you want to acknowledge.
- 3. Press Enter.

**Result**: The exception is updated and acknowledged.

When you acknowledge an exception, you become the owner of it. When you log on to the HelpDesk facility, you are notified of any unowned exceptions. Exceptions remain in the list until you delete them on the Exception History panel.

To delete an exception, enter the D (Delete) action code next to the exception you want to delete.

**Result**: The exception is deleted and removed from the Exception History panel.

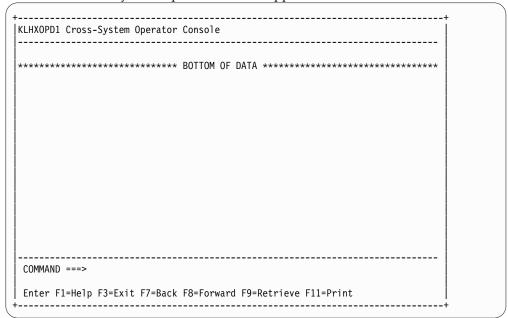
## Using the cross-system operator

The CL/SuperSession Cross-system Operator is a scrollable window that enables you to issue operator commands and receive responses. If your HelpDesk facility is connected to a remote system, you can also issue commands to that system from the local HelpDesk.

# Accessing the Cross-system Operator

To access the Cross-system Operator, select C (Switch to operator console) from the Goto pull-down menu, or press **F6** from the main HelpDesk panel.

**Result**: The Cross-system Operator console appears.



# Issuing commands

To issue commands from the Cross-System Operator:

1. Enter the command on the Command prompt at the bottom of the console panel.

**Note:** To issue commands to a remote CL/SuperSession, prefix the command with the four-character MVS system ID you specified in -RHILEV-.RLSPNLS(KLHSYSID) during installation. For example, to issue the STORAGE command to a remote CL/SuperSession on system SYSA, enter SYSA STORAGE

If you do not specify a four-character MVS system ID, the command is processed on the local CL/SuperSession.

You cannot issue the VIEWLOG or NAM commands from the Cross-system operator console.

#### 2. Press Enter.

**Result**: CL/SuperSession responses appear, indicating the status of the request. Command responses display on the console and are accessible until you exit the Cross-System Operator. To scroll through responses, use **F7** to scroll up, and **F8** to scroll down.

For more information about operator commands, see the *CL/SuperSession Operator's Guide*.

## **Printing screens**

To print a screen from the Cross-System Operator, press F11.

If you do not have a default VTAM printer defined, you are prompted to enter a printer name. For information about specifying a VTAM printer name, see the *IBM CL/SuperSession for z/OS V2.1 Customization Guide*.

## **Administrative functions**

This section describes the Administration pull-down menu available from the action bar in the HelpDesk feature. It also provides procedures for completing tasks such as:

- Setting, modifying, and deleting thresholds
- · Setting or modifying user authorities
- Cleaning up the HelpDesk user table

**Note:** The Administration pull-down menu is only accessible by users defined as HelpDesk Administrators.

# **Accessing the Administration menu**

To access the Administration menu, select Admin from the action bar.

Result: The HelpDesk Administration menu appears.

```
KLHADMN1 Administration Menu
HelpDesk Logging is currently..... ACTIVE
HelpDesk Monitor is currently..... ACTIVE
HelpDesk User Server is currently. ACTIVE
L STOP Logging Task
M STOP Monitor Task
S STOP User Server Task
T Set thresholds
U Set user authorities
C Clean up local users
Enter F1=Help F5=Refresh F12=Cancel
```

This panel shows the current status of HelpDesk tasks, including logging, monitoring, and the user server. You can use this panel to perform the following actions:

Stop and start the HelpDesk logging task. STOP Logging Task **STOP Monitoring Task** Stop and start the Monitor feature task. **STOP User Server Task** Stop and start the user server task.

Set Thresholds Set thresholds for CL/SuperSession resources.

**Set User Authorities** Set or modify user authority to access the HelpDesk facility. Delete users who are no longer logged on to CL/SuperSession Cleanup User Table

from the HelpDesk table.

# Starting and stopping tasks

#### Introduction

The Administration menu enables you to start and stop the following background tasks:

Logging task

Records users logging on and off the local CL/SuperSession. If you stop this task, the HelpDesk facility stops recording logons to the local CL/SuperSession.

Monitor task

Obtains the status of local CL/SuperSession resources and displays the results on the Monitor panel. If you stop this task, real-time monitoring ceases.

User Server task

Obtains user and session information by issuing CL/SuperSession commands and receiving responses on the Cross-system Operator console panel. Each HelpDesk operator has a specific user server. If you stop this task, you cannot issue commands on the Cross-system Operator console.

The logging and monitor tasks are started automatically, as non-terminal dialogs (NTDs), when you initialize CL/SuperSession. These tasks remain active until you terminate CL/SuperSession. The user server task is initialized as you log on to the HelpDesk facility and runs until you log off the HelpDesk facility. The logging, monitor, and user server tasks should only be stopped to recover from abnormal conditions.

## Stopping a task

To stop a HelpDesk task:

1. Enter the appropriate letter in the field provided on the Administration Menu.

L To stop HelpDesk logging. M To stop the Monitor feature.

M To stop the Monitor feature.

IJ To stop a user server.

Result: A Confirm Command pop-up appears, asking you to confirm termination of the specified task.

2. Enter a Y (Yes) to proceed, N (No) to cancel the termination.

### Starting a task

To start a HelpDesk task at any time during your session:

1. Enter the appropriate letter in the field provided on the Administration Menu.

To start HelpDesk logging.

M To start the Monitor feature.

U To start a user server.

> Result: A Confirm Command pop-up appears, asking you to confirm initialization of the specified task.

2. Enter a Y (Yes) to proceed, N (No) to cancel the termination.

**Note:** If you stop the user server task, you will not receive a Confirmation Command message. You will receive a HelpDesk message informing you the user server task has been started.

# **Setting thresholds**

#### Introduction

IBM supplies a set of CL/SuperSession default thresholds for:

- % Primary Storage Carved
- % Primary Storage Used
- % Extended Storage Carved
- % Extended Storage Used
- · Active Virtual Sessions
- · Logged On Users

The HelpDesk feature enables you to set thresholds for an unlimited number of Virtual Terminal Pools (VPOOLs) using the Set Thresholds panel. Once you have set your VPOOL thresholds, you can view the first six pools you defined, sorted alphabetically, on the Monitor panel of the HelpDesk facility.

Note: The HelpDesk facility alerts you to all exceeded threshold values, even though you can view only the first six pools you defined on the Monitor panel.

## Accessing the Set Thresholds panel

To access the Set Thresholds panel, enter a T (Set Thresholds) in the input field provided on the HelpDesk Administration panel.

**Result**: The Set Thresholds panel appears.

```
KLHMNAD1 Set Thresholds
Monitor Status..... Active
Monitor Interval.... 15 (minutes)
Exception Thresholds
Name Description Warning Critical Alert
\_ HDMSTPC \% Primary Storage Carved 1500 2400 ON
  HDMSTPU % Primary Storage Used 80 90 ON
  HDMSTXC % Extended Storage Carved 80 90 ON
  HDMSTXU % Extended Storage Used 80 90 ON
  HDMSESS Active Virtual Sessions 2000 2500 ON
  HDMUSERS Logged on users 1000 1200 ON
A=Add Vpool C=Change D=Delete
Enter F1=Help F7=Back F8=Forward F11=Print F12=Cancel
```

This panel shows the current Monitor status and allows you to modify the interval at which CL/SuperSession thresholds are monitored.

**Note:** The supplied default interval is 15 minutes.

## Adding thresholds

To add thresholds to the list of those currently monitored:

1. Enter the A (Add VPOOL) action code next to a threshold name.

**Result**: The Add VPOOL Monitoring panel appears.

(+	t
KLHMNTA1 Add Vpool Monitoring	
Vpool Name  DescriptionVpool  Warning thresh  Critical thresh  Enable Alerts (ON/OFF)	
Enter F1=Help F12=Cancel	
L+	+

- 2. Enter the name and description of the threshold you want to monitor as well as the warning and critical values for the pool.
- 3. Enter ON in the Enable Alerts field to receive exception alerts when warning and critical values are met or exceeded.

4.

## Modifying threshold values

To modify threshold values at any time during your session, enter the C (Change) action code next to a threshold name.

**Result**: The Change Thresholds panel appears.

```
KLHMNTC1 Change Thresholds
Resource Name... VIRTPARS
Description.... vpool
Type......... VPOOL Warning thresh.. 4
Critical thresh. 6
Enable Alerts... ON (ON/OFF)
Enter F1=Help F12=Cancel
```

You can use this panel to change the description of the threshold or warning and critical threshold values. You can also toggle exception notification on and off in the Enable Alerts field.

## **Deleting thresholds**

To delete a threshold from the list of currently monitored thresholds:

1. Enter the D (Delete) action code next to the name of the threshold you want to delete.

Note: You can delete only thresholds that you create. You cannot delete CL/SuperSession supplied default thresholds.

Result: A Confirm Command pop-up panel appears.

2. Enter a Y (Yes) to proceed, N (No) to cancel the deletion.

# Setting user authorities

#### Introduction

The first user to log on to the HelpDesk facility after initial installation is assigned Administrator authority. This user can then use the User Authorities option on the Administration pull-down menu to perform the following actions:

- · Add authority for a new user
- · Change the authority of any user
- · Delete a user

## Accessing user authorities

To access the HelpDesk User Authorities panel, enter a U (Set User Authorities) in the field provided on the HelpDesk Administration menu.

**Result**: The HelpDesk User Authorities panel appears.

/_ / Y Y Y C	_Chana	. D-D-	1.4.				ļ	
N=Add C Save	=cnang	ie D=De	iete				ŀ	
	Admin	Cance1	View	Screens	Alerts	Console		
JSER01	Υ	Υ	Υ	Y	Υ	Υ		
JSER02	N	Υ	N	N	Υ	Υ	İ	
JSER03	N	N	Υ	Υ	Υ	Υ	İ	
JSER04	Υ	Υ	Υ	Υ	Υ	Υ	İ	
JSER05	N	Υ	Υ	Υ	N	N	İ	
JSER06	N	N	Υ	Υ	N	N	İ	
JSER07	N	Υ	N	N	Y	Y	İ	
JSER08	N	N	Υ	Y	Υ	Υ	İ	

## Adding user authority

To add authority for a new user:

1. Enter the A (Add) action code next to the name of a user on the main HelpDesk panel.

**Result**: The Add User Authority panel appears.

```
KLHAUTA1 Add User Authority
User.....
Admin...._ (Y/N)
Enter F1=Help F12=Cancel
```

2. Enter the user ID of the user you want to add, and indicate Y (Yes), or N (No) in the following fields:

Admin	Gives the user Administrator authority and allows use of the functions available on the Administration pull-down menu.
View	Gives the user authority to view another user's screen.
Save Screens	Gives the user authority to save another user's viewed screen.
Cancel	Gives the user authority to cancel another user's session.
Receive Alerts	Alerts the user when threshold values are met or exceeded.
Operator Console	Gives the user authority to use the operator console panel for issuing CL/SuperSession commands.

# Changing user authority

To change authority for a user, enter the C (Change) action code next to the name of the user you want to change.

**Result**: The HelpDesk User Authority panel appears, which allows you to change the authority of a user for any administrator functions on the Administration pull-down menu.

## Cleaning up the user table

### Introduction

The user table contains session information for each local and remote user logged on to the HelpDesk facility. If a CL/SuperSession user experiences terminal or session connection problems which result in abnormal disconnections, the HelpDesk facility continues to store session information for that user even if the user has disconnected from CL/SuperSession.

Although these users are automatically deleted from the user table every 30 minutes, you may not want to wait for this clean up interval. Instead, you can use the Administration pull-down menu to immediately clean up the user table. To do this:

 Enter a C (Clean up local user table) in the field provided on the Administration Menu.

**Result**: HelpDesk locates the local users who are no longer logged on to CL/SuperSession and deletes them from the user table.

#### Remote users

When you clean up the user table from the Administration menu, only local users are affected. Remote users who have experienced an abnormal disconnection from the remote system, are automatically deleted from the user table every 30 minutes. This is accomplished via a command issued by the HelpDesk remote system to the local system.

# **Enabling cross-system functionality**

The HelpDesk facility can be installed on multiple CL/SuperSessions, and will have full functionality for each system on which it is installed.

The HelpDesk facility also provides the capability for a single HelpDesk to run dialogs on a second CL/SuperSession address space, either in the same MVS image or in different MVS images, and collect and report data on the secondary system. In this case, the HelpDesk dialogs run on one address space (called the local system), and collect data via standard VTAM connections from the other system in your network (called the remote system).

When you enable cross-system functionality, you can perform the following HelpDesk actions:

- · Monitoring logons and logoffs on local and remote systems
- Issuing operator commands to the remote system, and receive command responses
- · Issuing broadcast messages to the remote system

# Refreshing remote system user information

If a remote user logs on or off, the remote system sends a message to the local system on the logging link notifying it of the change in status.

Additionally, the remote system automatically sends a message to the local system containing a list of all the remote users who have logged off in the last 30 minute period. The local system then refreshes the HelpDesk user table.

## Installing the HelpDesk on a remote system

## Installation procedures

### Step 1: Add ACB names to the local system

To add the ACB names to the local system:

1. Uncomment the following statements in -RHILEV-.RLSCMDS(KLHCDLGH) for the local CL/SuperSession

DIALOG < LCLACB1 > KLHXUREQ DIALOG <LCLACB2> KLHXLOGR NTD KLHXINIT NTD KLHXLGIN

where LCLACB1 and LCLACB2 represent the appropriate local ACB names for your site.

2. Update SYS1.VTAMLST with the local ACB names. For example:

LCLACB1 APPL EAS=1, AUTH=(ACQ, NVPACE), ACBNAME=LCLACB1, PARSESS=YES

### Step 2: Define dialog ACB names to the remote system

To define the dialog ACB names to the remote system:

1. Add the following statements to -RHILEV-.RLSCMDS(KLSSTART) on the remote system:

DIALOG < RMTACB1 > KLHXUSVX DIALOG <RMTACB2> KLHXLGON

where RMTACB1 and RMTACB2 represent the appropriate remote ACB name for your site.

2. Update SYS1.VTAMLST with the remote ACB names. For example, RMTACB1 APPL EAS=1, AUTH=(ACQ, NVPACE), ACBNAME=RMTACB1, PARSESS=YES

### Step 3: Provide a unique system ID for the remote system

If the remote CL/SuperSession is running on the same MVS image as the local CL/SuperSession, the system ID for each defaults to the SMF system ID. For the HelpDesk facility to operate, the local and remote systems must have unique system IDs.

If the remote and local CL/SuperSessions are running on the same MVS image, provide a unique 4-character system ID for the remote system in -RHILEV-RLSPNLS(KLHSYSID).

### Step 4: Add remote ACB names to the local system

To add remote ACB names to the local system.

- 1. In the )INIT section of -RHILEV-.RLSPNLS(KLHXDCL), replace the local ACB names (LCLACB1 and LCLACB2) with the ACB names chosen in step 1.
- 2. In the )INIT section of -RHILEV-.RLSPNLS(KLHXDCL), replace the remote ACB names (RMTACB1 and RMTACB2) with the ACB names chosen in step 2.

3. Substitute the system ID (SYSX) with the remote system ID chosen in step 3.

### Step 5: Define a remote monitor control point and user exit

The monitor facility uses the SSPL 'OPERATOR' function, which requires a valid user ID and password. Because the monitor task runs as an NTD (Non-Terminal Dialog) and is not associated with any user sessions, you must define a special user ID and password and make it available to this NTD.

To avoid the potential security exposure involved in storing a real password, the monitor task runs under a separate control point which does not use external security. This requires a special NAM exit, which is in member KLHDNAMX in the supplied library.

To assemble and link this exit into your -RHILEV-.RLSLOAD library, see member KLHDNAMJ for the appropriate JCL.

To define the additional control point: Add the following statements to -RHILEV-.RLSPARM(KLVINNAM):

```
MONITOR DSNAME(<NAM dataset name>)-
NORACF -
NODB -
EXIT=KLHDNAMX
```

where NAM dataset name represents the appropriate NAM dataset name for your site.

The control point will be defined at the next CL/SuperSession startup.

### Step 6: Install initial dialogs to the remote system

Use the CL/SuperSession Profile Administration panels to modify the GLOBAL Profile Common Segment for the remote CL/SuperSession as follows:

Initial Dialog......KLHLOGON

**Note:** If you have already defined a Global Initial Dialog, then add the following statement to the end of your dialog:

```
)term
select KLHLOGON
```

# Starting and stopping the remote server tasks

#### Introduction

When the local CL/SuperSession is started, and a remote system is defined, it automatically attempts to establish a connection with the remote CL/SuperSession. If the local system is unable to establish the connection at startup, it will retry every 5 minutes until it is successful, or until it has attempted the connection 5 times.

If the local system is still unable to establish a connection after the fifth try, it no longer attempts to establish the connection. The remote link will then have to be started manually. Also, if either system goes down or is brought down, the link between the two systems is broken you must restart each system manually.

#### Starting the remote server tasks

This section explains how to start the command server and logging tasks for the remote server.

- To start the command server task, issue the following command from the local system:
  - NTD KLHXINIT
- To start the logging task, issue the following command from the local system: NTD KLHXLGIN

#### Stopping the remote server tasks

This section explains how to stop the command server and logging tasks for the

- To stop the command server task, issue the following command from the local system:
  - NTD KLHXSTOP
- To stop the logging task, issue the following command from the remote system: NTD KLHDSTOP

## Appendix A. Migration from earlier versions

This appendix tells you how to migrate from the previous releases of CL/SuperSession Version 1.4.7 to the current release, Version 2.1.

#### **Migration tasks**

The CL/SuperSession started task procedure includes 3 libraries that are meant to assist in the migration from CL/SuperSession v1.4.7:

- -RHILEV-.RLSPARM.MIGRATE
- -RHILEV-.RLSCMDS.MIGRATE
- -RHILEV-.RLSPNLS.MIGRATE

**Note:** Any CL/SuperSession V1.4.7 configuration or modified panel member should be carefully examined before being copied into the corresponding CL/SuperSession V2.1 migration library.

Invoke -SSPROC- procedure to run CL/SuperSession V2.1.

Reassemble User Exits

Rename Group Profile Selection Dialogs Convert Profile Table format

Reinstate Customization from Previous Version Run the KLSNMPRG Dialog (optional)

### Start CL/SuperSession

#### **Important**

Ensure that the steps described in "Installation verification cleanup" on page 15 have been executed before you continue.

Activate the VTAM major node by issuing the following VTAM command from the z/OS console:

V NET, ACT, ID=newname

where newname is the VTAM major node name copied into SYS1.VTAMLST.

Then, enter this command from the z/OS console:

S kls

where kls is the name of the started task.

As the CL/SuperSession address space initializes, startup messages appear on the SYSLOG.

IBM CL/SuperSession ENGINE VERSION 210 READY ON SYS(147B452817): GSA(B000)

#### Start CL/SuperSession

where cpu is the system ID, sernum is the CPU serial number, and hexadd is the hexadecimal address of the global storage area (GSA).

#### Stop CL/SuperSession

Issue the following command to the z/OS console: F k1s,SHUTDOWN

where kls is the name of your CL/SuperSession started task.

Issue the command a second time for confirmation.

# Appendix B. Creating and/or cloning additional CL/SuperSession environments

Depending on your environment and business practices, an additional CL/SuperSession address space may be a strategic imperative for either load balancing or as a hot-standby.

If you originally installed CL/SuperSession with the USEHAO=Y option, three address spaces were created to manage profile changes and track disconnected users to later route them back to the image on which they and any of their virtual sessions were logged-on and may have been disconnected from.

If you need to create other CL/SuperSession topologies, for example, one with a separate test image or a standby address space, you can easily do so using one of the following techniques.

# Clone a CL/SuperSession image (Separate runtime libraries and shared SMP/E target libraries)

You might want to clone a CL/SuperSession image if you did not initially install with USEHAO=Y and you have later decided to implement the High Availability Option and Multipoint Helpdesk OR, subsequently decide you need an additional address space to balance your workload or provide standby assurance in the event of an outage.

A cloned environment shares the same SMP/E target libraries so maintenance installed in one SMP/E environment would be available to all address space. Each address space, however, allocates its own set of RUNTIME libraries to specify parameters unique to that instance like the dataset name of its Tables Database (TDB) or the names of its virtual terminals.

- 1. Review your current CL/SuperSession started task and identify your custom runtime libraries, for example, -RUNPFX-.
- 2. Copy each of the libraries and their members into new runtimes and update the new started task JCL.
- 3. Create new VSAM datasets for NAM, NAF and Viewlog and update the new runtime PARMLIB members KLVINTB, KLVINNAM, and KLVINVLG with these new dataset names.
- 4. Review the SYS1.VTAMLST member for your current started task and create a corresponding member for the new address space specifying different APPLIDs.
- 5. Update the new address space's configuration members [xxx] to support the new HOSTGATE and Virtual Terminal ACBs (and for the CUA Operator, NODE, and the VPO, if used)
- 6. Review the TLVPARM and TLVCMDS members that specify dataset names, ACBs, command list names, and user exits updating them where needed.
- 7. Copy or reassemble any security exits you may have enabled.
- 8. REPRO the NAM and TDB from the current address space to the newly allocated files.

#### Create a new CL/SuperSession image (Separate SMP/E target libraries)

If you need to maintain different versions or different maintenance levels of CL/SuperSession, for example, to perform some level of user acceptance validation before rolling the maintenance out to your production system, you may want to consider creating an entirely new CL/SuperSession image.

#### Migration strategies

The technique for migrating from a prior release of CL/SuperSession is similar whether or not you expect to run both versions at the same time.

If you are NOT anticipating running both address spaces concurrently, most of the same runtime files and naming conventions can be used; be sure to specify these, for instance the APPLIDs, during installation.

If you \*DO\* plan on maintaining both versions for a period of time, you will have specified new initialization values at install that generate unique APPLIDs and files.

#### In either case:

- 1. Review your current CL/SuperSession started task and identify your custom runtime libraries, for example, -RUNPFX-.
- 2.
- a. Review any customizations you may have made to product dialogs (those beginning with KL\*), these changes may need to be refit to current versions of these same dialogs.
- b. Copy your other user dialogs ASIS, V2.1 is completely back-level compatible.
- 3. Copy or reassemble any security exits you may have enabled if applicable.
- 4. On the prior release, run the SAMPLIB dialog KLSTBCLN to check for old or unused profiles and optionally delete them.
- 5. REPRO the NAM and TDB from the current address space to the V2.1 files.

### Appendix C. Checklist to set up HAO

#### Checklist to implement HAO into an existing environment

If HAO is installed after the implementation, the following checklist should give a direction to do a post implementation.

Based on the KLSINNA2 in the DS \*.\*\*.SKLSCMDS the variables need to be set manually for the HAO implementation. There are some other changes also needed like the Helpdesk start member, the STC where the Helpdesk Panels need to be concatenated in TLVPNLS DD Statement.

Some additional hints and pre-work before starting:

- You have to run through the checklist for each CL/SuperSession which is member of the HAO component. And the KLVINNA2 has to be created for each CL/SuperSession separately as the Local is the remote for others.
- HAO is the default qualifier for the system names. The fourth parameter is the numbering of each which is in HAO1, HAO2 etc.... will be shown in the Helpdesk afterwards and the systems and its connection are managed over this system names. Suggestions are names which are related to the LPAR where the CL/SuperSession is running.
- Each CL/SuperSession which are member of the HOA component needs its own Gateway definition (found in \*.\*\*.RLSCMDS(KLGHHGW)). When CL/SuperSession is customized without HAO there is the first Gateway named NOGTWY. It is a good idea to use the system name and to have a naming convention through the local and remotes system. But you can also use your own names if you want.
- Each Gateway which is a Generic Resource should get the ISTGENERIC parameter set, where CL/SuperSession is connecting to the Generic Resource. But this is not a must, the HAO can run without Generic Resource.
- A good idea but not a pre-work requirement, is to put the DISP(SHR) parameter for the NAM and TDB DB.

Table 10. Checklist to implement HAO into an existing environment

Action	Description	Executes for each CLSS
REPRO of RLSNAM and RLSTDB before start with next step	Need to be done before you start with the HAO definitions then you have a 1:1 copy of the Databases.	
VTAM MAJOR node changes	Insert the HAO Gateway Name as there is a NOHAO appl name as the first gateway.	

Table 10. Checklist to implement HAO into an existing environment (continued)

Action	Description	<b>Executes for each CLSS</b>
KLSINNAM or KLSINNA2 in	KLSINNA2 is the Member which includes the variable names for HAO local as remote.	
*.**.RLSCMDS	set HAO usage to 1 by changing the parm:	
	NAM DECLARE USEHAO 1 *HIGH AVAILABILITY OPTION SUPPORT SWITCH	
	The fields HAOPREF are replaced by the own Qualifier if the default is not matching. The HAOSEQN is one for the local HAO. The red marked are samples:	
	NAM SET -HAOPREFHAOSEQN- (HAO1) + HDGATE:-HAOPREFHAOSEQN-GTWY (HAO1GTWY)+ HDMODE:-HAOMODE- (F) + HDLRA:-HAOPREFHAOSEQN-PHXL (HAO1PHXL)+ HDCSA:-HAOPREFHAOSEQN-PHXS (HAO1PHXS)+	
	HDPSRA:-HAOPREFHAOSEQN-PPSR (HAO1PPSR)	
	* REMOTE HD SYSTEM IDS STRING NAM SET HELPDESK HDXSTR:-HAOPREFHAORXSN-/-HAOPREFHAORYSN- (HA02/HA03) *	
	* REMOTE HD-X DEFINITIONS  NAM SET -HAOPREFHAORXSN- HDXGATE:-HAOPREFHAORXSN-GTWY HDXMODE:-HAORXMD- HDXLRA:-HAOPREFHAORXSN-PHXL HDXCSA:-HAOPREFHAORXSN-PHXS HDXPSRA:-HAOPREFHAORXSN-PPSR  (HAO2PHXL) + HDXPSRA:-HAOPREFHAORXSN-PPSR (HAO2PPSR)	
	* REMOTE HD-Y DEFINITIONS NAM SET -HAOPREFHAORYSN- (HAO2) + HDYGATE:-HAOPREFHAORYSN-GTWY (HAO2GTWY) + HDYMODE:-HAORYMD- (F) + HDYLRA:-HAOPREFHAORYSN-PHXL (HAO2PHXL) + HDYCSA:-HAOPREFHAORYSN-PHXS (HAO2PHXS) + HDYPSRA:-HAOPREFHAORYSN-PPSR (HAO2PPSR)	
NTD KLSINNA2	Run this in all instances after changing the HAO names for the local and remote HAO components.	
Check variables	Just to check that the correct variable names are in by calling the CUA Operator do in the Action bar a G82 to do a list/display of the Variables.	
KLSCDLGH	Change the KLSCDLGH which includes the whole Dialog starting flow. You need to change the HAO related variables. You will find this Member in *.**.SKLSCMDS.	
KLGGHGGW	You have to insert the Generic Resource Name in the Hostgate statements. In the moment there is a Name in which is not existing.	
KLSSTART	Insert or change the following in that member which is stored in *.**.RLSCMDS:	
	The KLSCDLGH instead of KLSCDLG	
	<ul><li>NAM SET HELPDESK USEHAO:1</li><li>NTD KLSSOPTS 'KLSOPTHA 1</li></ul>	
STC CHANGE	You have to change the STC that the Library SKLSHAOP is used in the Panel DD Statement.	

Table 10. Checklist to implement HAO into an existing environment (continued)

Action	Description	Executes for each CLSS
Start STC1	Start the first one and have a look that all is set up correctly. In helpdesk you will see an additional Action bar point 'CONNECTION' which includes the Heart beat probe to know that the connections are set up. As the second system is not started you will see that no connections are established. In ADMIN you see additional points in the pop-up panel. Please review the HAO parameter. Next, check the Generic Resource by doing a logon applid(generic resource). It will automatically route you to the Gateway which is the member of the Generic Resource.	
Start STC2	Do the same with STC2 and after a while – don't forget the delays which are set in KLSCDLGH member – you see the connections are established. When you're using the KLSSTART from 'disaster and recovery' the profile synch will start each hour.	
Monitor is not started and looks inactive	Give the monitor time to start. There is a delay of 5 minutes.	

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