Basic Configuration Guide

CL/SUPERSESSION®
CL/GATEWAY™

Version 147

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Preface

About This Document

This manual provides instructions for configuring CL/SUPERSESSION® and CL/GATEWAY® to the needs of your network, system, and users. Before using this manual, be sure you have completed the installation procedures described in *Installing Candle Products on MVS*.

Some of your customization needs may go beyond the procedures provided in this manual. If so, refer to the *Customization Guide*. If you have installed CL/GATEWAY for IMS, the basic configuration has been installed from a Candle-provided tape. The *Customization Guide* also contains more information on IMS configuration.

Adobe Portable Document Format

Introduction

Candle supplies documentation in the Adobe Portable Document Format (PDF). The Adobe Acrobat Reader prints PDF documents with the fonts, formatting, and graphics in the original document. To print a Candle document, do the following:

1. Specify the print options for your system. From the Acrobat Reader Menu bar, select **File > Print Setup...** and make your selections. A setting of 300 dpi is highly recommended as is duplex printing if your printer supports it.
2. To start printing, select **File > Print** on the Acrobat Reader Menu bar.
3. On the Print popup, select one of the **Print Range** options for
   - a single page
   - a range of pages
   - all of the document
4. (Optional) To fit oversize pages to the paper size currently loaded on your printer, select the **Shrink to Fit** option.

Printing problems?

Your printer ultimately determines the print quality of your output. Sometimes printing problems can occur. If you experience printing problems, potential areas to check are:

- settings for your printer and printer driver. (The dpi settings for both your driver and printer should be the same. A setting of 300 dpi is recommended.)
- the printer driver you are using. (You may need a different printer driver or the Universal Printer driver from Adobe. This free printer driver is available at www.adobe.com.)
- the halftone/graphics color adjustment for printing color on black and white printers. (Check the printer properties under **Start > Settings > Printer**. For more information, see the online help for the Acrobat Reader.)
- the amount of available memory in your printer. (Insufficient memory can cause a document or graphics to fail to print.)

For additional information on printing problems, refer to the documentation for your printer or contact your printer manufacturer.

Documentation Conventions

Introduction

Candle documentation adheres to accepted typographical conventions for command syntax. Conventions specific to Candle documentation are discussed in the following sections.

Panels and figures

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

Revision bars

Revision bars (|) may 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(cccccccc)
```

In the above example, you type **LOGON APPLID** followed by an application identifier (represented by *cccccccc*) within parentheses. The number of characters indicates the maximum allowable length of the variable.

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

Symbols

The following symbols may appear in command syntax.

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

{ }	Some documents use braces to denote required arguments, or to group arguments for clarity. Example:
	
	`COMPARE {workload} -`
	`  REPORT={SUMMARY | HISTOGRAM}`
	
	The *workload* variable is required. The REPORT keyword must be specified with a value of SUMMARY or HISTOGRAM.

_	Default values are underscored. Example:
	
	`COPY infile outfile -`
	`  [COMPRESS={YES | NO}]`
	
	In this example, the COMPRESS keyword is optional. If specified, the only valid values are YES or NO. If omitted, the default is YES.

ƀ	The symbol ƀ indicates a blank space, when needed for clarity.

Documentation Set

Introduction

Candle provides a complete set of documentation for CL/SUPERSESSION and CL/GATEWAY. Each manual in this documentation set contains a specific type of information to help you use the product.

Candle welcomes your comments and suggestions for changes or additions to the documentation set. A user comment form, located at the back of each manual, provides simple instructions for communicating with Candle's Information Development department. You can also send email to **UserDoc@candle.com**. Please include the product name, version, and book title in the subject line. To order additional manuals, contact Candle Customer Support.

Product documentation

The documentation listed in the following table is available for CL/SUPERSESSION and CL/GATEWAY. To order additional product manuals, contact your Candle Customer Support representative.

Table 1 (Page 1 of 2). CL/SUPERSESSION and CL/GATEWAY Documentation

Document Number	Document Name	Description
LS60-3779	Version 147 Release Guide	Contains new information for this release.
IC51-6057	Installing Candle Products on MVS	Provides installation instructions and other installation considerations.
LS55-3785	Basic Configuration Guide	Provides basic instructions for customizing CL/SUPERSESSION and CL/GATEWAY to the specific needs of your network, system, and users.
LS51-3781	Customization Guide	Provides instructions and explanations for customizing CL/SUPERSESSION and CL/GATEWAY to the needs of your network, system, and users.
LS54-3786	User's Guide	Contains brief instructions on how to operate CL/SUPERSESSION and CL/GATEWAY.
LS99-3789	Operator's Guide	Describes the CT/Engine operator facility and commands used by CT/Engine, CL/SUPERSESSION, and CL/GATEWAY.

Table 1 (Page 2 of 2). CL/SUPERSESSION and CL/GATEWAY Documentation		
Document Number	**Document Name**	**Description**
LS99-4225	Introduction to SSPL Dialogs	Introduces users to the Structured Session Procedure Language (SSPL); shows how to customize and use some simple dialogs written in SSPL.
LS99-3821	SSPL Programming Guide	Explains how to create your own dialogs with SSPL, using a sample application that creates and manages a table.
LS53-3787	Dialog Language Reference Manual	Contains comprehensive descriptions of all features of the SSPL dialog language.
LS57-3780	Problem Determination Guide	Contains instructions and documentation recommendations for locating and solving problems in CL products.
LS52-3788	Messages Manual	Lists and explains all CT/Engine, CL/SUPERSESSION, and CL/GATEWAY messages and suggests appropriate user actions.
LVM99-4103	Quick Reference Card	Pocket-sized document that contains step-by-step instructions for using CL/SUPERSESSION and CL/GATEWAY.
LS59-3801	Master Index	Contains a master index for all CL/SUPERSESSION and CL/GATEWAY manuals that contain indexes.

Chapter 1. Introduction to CL/SUPERSESSION and CL/GATEWAY

When you configure CL/SUPERSESSION or CL/GATEWAY, you will become the first person to use the product at your site.

This manual assumes that you are the CL products administrator who will be responsible for setting up the security system and defining users. It also assumes that you have completed the installation procedures described in *Installing Candle Products on MVS*.

What Are the CL Products?

The CL family of network software provides effective tools for managing large VTAM® networks. The CL products offer powerful and easy-to-use solutions for integrating applications and responding to network users' working requirements in a VTAM network.

CL/SUPERSESSION

CL/SUPERSESSION is a multisession 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 multisession 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 onto CL/SUPERSESSION at the new terminal while the original virtual sessions are still active.

Other features included with CL/SUPERSESSION are described below.

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 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 *Customization Guide*.)
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 the most recently displayed screen for one of a user's sessions to answer questions and solve problems.

CL/GATEWAY is a component of CL/SUPERSESSION. The next section of this chapter describes its features.

CL/GATEWAY for MVS

CL/GATEWAY for MVS is the Candle VTAM network access manager that provides a single entry point to an SNA network. CL/GATEWAY provides improved security and enhanced control of the network. Users of CL/GATEWAY 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/GATEWAY for MVS is the only VTAM network access manager that 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/GATEWAY for IMS

CL/GATEWAY for IMS provides access and control facilities for maintaining session integrity with IMS/DC ASSIGN and DEQUEUE session services. If a virtual session is intentionally or accidentally disconnected, CL/GATEWAY for IMS prevents the next user of the virtual terminal from accessing residual data. Refer to *Customization Guide* for more information.

CT/Engine

CT/Engine™ is the base application control system that provides the execution environment for the CL products. CT/Engine contains:

- The *Dialog Manager*, which enables customization of the user interface and provides CL processing logic. The Dialog Manager uses Candle's 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 standalone 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. Refer to the *Customization Guide* for more information.
- The *CT/Engine operator facility*, which provides commands, command lists, terminal displays, and configuration aids. Commands for MVS, 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 timeouts. 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. CT/Engine 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, 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

In Version 147 of CL/SUPERSESSION and CL/GATEWAY, most of the dataset names and member names were changed. Table 2 lists the old and new names of five of the product's primary libraries, along with the common name of each library and a brief description of each.

Three of the previous libraries (VTPCLIB, VTPILIB, and VTPPLIB) have been separated into a CL/SUPERSESSION library and a CT/Engine library. Each CL/SUPERSESSION library name begins with TLS, and each CT/Engine library name begins with TLV.

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

Table 2. CL/SUPERSESSION Libraries

Old Name	New Name	Common Name	Description
VTPCLIB	TLSCMDS	Command Library	Command lists that control initialization and operation
	TLVCMDS		
VTPILIB	TLSPARM	Initialization Library	Initialization and configuration parameters
	TLVPARM		
VTPPLIB	TLSPNLS	Panel Library	Dialogs that control the user interface screens (or *panels*)
	TLVPNENU		
LSAMPLE	TLSSAMP	Sample Library	Sample dialogs, utilities, and exits
VTPSLIB	TLSSAMP	Sample Library	Sample dialogs, utilities, and exits

*&tthilev.*TLSSAMP(KLSTBLS) contains a cross-reference list of the old and new names of all data elements that have changed.

Candle recommends that you make changes only to the user libraries, with the *&rthilev*.RLS*ccccc* low-level qualifier, and keep the product libraries as shipped.

The procedures described in this manual use the members shown in Table 3. You may copy all members listed in Table 3 into your user libraries now, or you may add each member as you need it.

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

For more information on the libraries and members invoked during startup, see "Starting and Stopping" on page 129.

Table 3. Members Commonly Customized During Basic Configuration

Library	Member	Description
TLSSAMP	KLS@ASM	Contains JCL to assemble exits.
TLSCMDS	KLGCAPLT	Defines application lists.
	KLGCAPLS	Defines PASS and SINGLE type applications.
	KLSCAPLS	Defines MULTI type applications.
	KLS$VSMS	Contains VSM commands that define virtual terminal pools.
TLSPARM	KLGIAPL1	Lists SINGLE type applications.
	KLGIAPL2	Lists MULTI and PASS type applications.
	KLGICFGn	Defines a gateway configuration.
TLVPARM	KLVINNAM	Contains security information.

Function Keys

Function keys are used to perform many CL/SUPERSESSION and CL/GATEWAY 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 and CL/GATEWAY to process the current panel and save the data 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, F4 toggles between the two.

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 issued and re-enters it on the command line. By pressing F9 repeatedly, you can retrieve up to 10 previous commands.

On panels where **F9=Reset** 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 F9 will have no effect.

Note: 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 Enter.

Chapter 2. Configuration Planning and Procedures

This chapter will guide you through the configuration of CL/SUPERSESSION®, including CL/GATEWAY®.

Configuration Checklist

Table 4 outlines the activities 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 √ column to check off steps as you complete them.

Table 4. Configuration Checklist

√	Configuration Activity
	Review the configuration planning information.
	Create and submit jobs using the CICAT.
	KLSJOBA1 (Allocate CL/SUPERSESSION runtime files)
	KLSJOBA2 (Customize CL/SUPERSESSION runtime files)
	KLSJOBA3 (Allocate CL/SUPERSESSION NAF file)
	Modify the started task JCL and authorize the runtime load libraries.
	Add supplementary mode table (if required).
	Include APPL definitions in SYS1.VTAMLST.
	Set dispatching priority (if required).
	Modify for early versions of MVS, VTAM®, and DFP (if required).
	Verify the installation.

Environment

Software Environment

For information about IBM, Candle, and other vendor software supported by CL/SUPERSESSION, see *Installing Candle Products on MVS*.

Hardware Environment

You can also find information about the processors and terminals supported by CL/SUPERSESSION in *Installing Candle Products on MVS*.

Other Considerations

Table Database

The table database is designed to accommodate large tables with minimum resource contention. It is designed to use a control interval (CI) size of 4096. This keeps CI contention at a low level, though it requires more DASD than a smaller block size does.

Candle recommends that you specify a CI size of 4096 when defining the table database.

Identify Site-specific Configuration Values

Configuration Value Table

Table 5 lists and describes the variables for which you will supply actual valute during the configuration process. Under the column heading **Your Value**, fill in the site-specific configuration value for each variable.

You can then use this table for reference as you perform the configuration process.

Table 5. Site-specific Configuration Values

Variable Description	Variable Name	Your Value
Product Configuration Substitution Variables		
Prefix for entry point and virtual terminal ACBNAMES	&lsvt	
Prefix for IMS Virtual MTO ACBNAMES	&lsmto	
Product Migration Substitution Variables		
Dataset name of USER.VTPCLIB	&lsuclib	
Dataset name of USER.VTPILIB	&lsuilib	
Dataset name of USER.VTPPLIB	&lsuplib	
Dataset name of existing NAM	&lsnam	
Dataset name of existing TABLEDB	&lstdb	
Dataset name of supplied VTPLOAD(V145)	&lsload	

Perform Initial CL/SUPERSESSION Configuration Procedures

Introduction

Perform the following steps to complete the CL/SUPERSESSION configuration procedures. From this point on, references to datasets will be their low-level qualifiers to distinguish a CT/Engine dataset from a CL/SUPERSESSION dataset. CT/Engine low-level qualifiers are prefixed with TLV and the low-level qualifier suffix identifies the type of library (for example, CMDS for command library, PARM for initialization library). CL/SUPERSESSION low-level qualifiers are prefixed with TLS. runtime libraries and datasets (that is, those not supplied with the product) will be prefixed with RLS.

- RLSTDB, RLSNAM, RLSVLOG and, optionally, RLSNAF
- Site-specific modifications to CL/SUPERSESSION libraries (user libraries)

All references to DDNAMEs will be preceded by the word DDNAME; otherwise, the reference is to the low-level qualifier of the dataset in question.

Important

You must use the CICAT to perform the following configuration procedures. See *Installing Candle Products on MVS* for instructions on using the CICAT.

Select the **`Assist product configuration`** option from the Installation/Configuration Primary Menu, the CL/SUPERSESSION Customization Menu, similar to Figure 1 on page 27, is displayed.

```
     --------------------- CL/SUPERSESSION CUSTOMIZATION MENU ------------------
OPTION  ===>

 Enter the number of the option desired.                      Last Selected
 Perform the steps in order.                                  Date      Time

    1   Define CL/SUPERSESSION customization parameters       93/03/31  15:45

    2   Allocate CL/SUPERSESSION runtime files

    3   Customize CL/SUPERSESSION runtime files

    4   Allocate CL/SUPERSESSION NAF file (Optional)

    5   Migration assistance from V115

    6   Migration assistance from V145

    7   Migration assistance from V146

 Enter HELP for more information.
 Enter END to return to the Primary menu.
```

Figure 1. CL/SUPERSESSION Customization Menu

1. Start with option 1 (Define customization parameters) and use the installation-specific values you supplied in Table 5 on page 25 to respond to the information requested.
2. Continue selecting each option in sequence, as appropriate, completing each step as instructed on the panels displayed.

Prepare to Run Version 147 Concurrently (optional)

If you do *not* want to run CL/SUPERSESSION Version 147 concurrent with an earlier version, skip this section.

If you do want to run Version 147 concurrent with an earlier version, you must ensure that the VTAM ACBNAMEs are unique for each environment (your earlier version and Version 147). To do so, supply values for variables *&lsvt* and *&lsmto* (in Table 5 on page 25) which do not conflict with your existing names.

Also, the VTAM major node names in SYS1.VTAMLST must be different.

Make sure all datasets are unique to their respective environments.

Job KLSJOBA1 (allocate runtime libraries)

This job allocates both VSAM and non-VSAM runtime datasets for CL/SUPERSESSION. Table 6 lists all CL/SUPERSESSION required runtime datasets.

To simplify rerunning, this job will IDCAMS DELETE each of the VSAM datasets. If this is the first time the job is executed, a return code of 8 is expected and does not indicate an error.

Table 6. CL/SUPERSESSION User runtime Datasets

Dataset Name	Description
&rvhilev.RLSNAM	Dataset for the Network Access Manager (NAM).
&rvhilev.RLSTDB	Dataset for the table database.
&rvhilev.RLSVLOG	Dataset for the VIEWLOG function.
&rhilev.RLSCMDS	Contains command lists for the local environment.
&rhilev.RLSLOAD	Contains user exits modified for the local environment.
&rhilev.RLSPARM	Contains initialization parameter lists for the local environment.
&rhilev.RLSPNLS	Contains panels that are modified for the local environment.
&rhilev.RLSSAMP	Contains samples that are modified for the local environment.

Job KLSJOBA2 (customize runtime files)

This job updates *&rhilev*.RLSPARM with these members:

- KLSSYSIN
- KLVINNAM
- KLVINTB
- KLVINVLG
- KLVINVPO

This job updates *&rhilev*.RLSCMDS with these members:

- KLGCAPLO
- KLGCHGGW
- KLICIMTO
- KLS$VSMS
- KLSCAPLO
- KLSSTART
- KLSSTRIV

This job updates *&rhilev*.RLSSAMP with these members:

- KLS
- KLSVTLST

Job KLSJOBA3 (allocate NAF runtime file)

This job allocates runtime dataset *&rhilev*.RLSNAF and creates the associated initialization member *&rhilev*.RLSPARM(KLVINNAF), which will direct CL/SUPERSESSION to the NAF file at product initialization time.

Table 7. CL/SUPERSESSION Optional User runtime Dataset

Dataset Name	Description
&rhilev.RLSNAF	Dataset for the Network Accounting Facility (NAF).

Note: The use of NAF file is optional. If you do not want to use the Network Accounting Facility (NAF), comment out the parameters specified in KLVINNAF of *&rhilev*.RLSPARM by inserting an asterisk (*) in column 1 of each parameter line and delete the NAF file.

Modify the Started Task JCL

- Copy member KLS from *&rhilev*.RLSSAMP to your SYS1.PROCLIB dataset. This is the started task JCL to run CL/SUPERSESSION. Edit according to the instructions in the member.
- If *&thilev*.TLVLOAD is in a link-list library, delete or comment out the STEPLIB DD statement in the KLS procedure that was copied into the PROCLIB dataset.
- To determine if APF-authorization is required, refer to the *Customization Guide*, and APF-authorize DDNAME TLVLOAD libraries if required. For more information on APF-authorization, see the IBM *System Programming Library: Initialization and Tuning* manual.
- Ensure that the started task (KLS) has READ/WRITE access to the required runtime libraries (*&rvhilev*.RLSNAM, *&rvhilev*.RLSTDB and *&rvhilev*.RLSVLOG) and to the optional runtime library (*&rhilev*.RLSNAF), if applicable because the started task (KLS) will be writing to these datasets.

Important

Do **not** rename any modules in *&thilev*.TLVLOAD or *&thilev*.TLSLOAD. These are product modules, and renaming them will cause the product to work improperly.

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 32.

Member *&thilev*.TLSSAMP(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.

1. Copy the JCL contained in *&thilev*.TLSSAMP(KLS@ASM) into a user library (for example, *&rhilev*.RLSSAMP) to edit. Modify this JCL to assemble and link-edit *&thilev*.TLSSAMP(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.

Modify for Early Versions of VTAM and DFP

CL/SUPERSESSION will automatically select the addressing mode that is consistent with the version of MVS you are running.

- MVS/SP - AMODE24
- MVS/XA - AMODE31
- MVS/ESA - AMODE31

If you are using MVS/XA with either

- an earlier version of VTAM than 3.1.1 or
- an earlier version of DFP than 2.1

the default AMODE may cause problems. You must delete the asterisk from the following statement in *&rhilev*.RLSPARM(KLSSYSIN)

```
*AMODE31(N)
```

Review and Update Your Automation Procedures

Message prefixes have changed as follows:

- VTP is now KLV
- VSS is now KLU
- VIG is now KLG

You should add in the new prefixes while both versions of CL/SUPERSESSION are in use, and remove the old prefixes when only Version 147 is in use.

Chapter 3. Installation Verification

Introduction

Follow this procedure to verify that CL/SUPERSESSION has been installed properly.

This procedure uses NAM security. If you plan to use an external security package, do not modify *&rhilev*.RLSPARM(KLVINNAM) until after the installation verification is complete.

The predefined users described here are intended for installation test purposes only. To add users when you are administering the products, see "Using Administrator Functions" on page 77.

User IDs GWUSER and SSUSER are defined to the NAM database as part of the installation process. The definitions are the same as if the following commands were issued from the MVS console.

1. User ID GWUSER has access to the single-session and pass-session capabilities of CL/SUPERSESSION.

   ```
   F kls,NAM SET GWUSER PASSWORD=GWUSER
   F kls,NAM SET GWUSER VSPADMIN:Y
   F kls,NAM SET GWUSER SSFLAG:N
   ```

   VSPADMIN:Y defines administrator authority for GWUSER.

2. User ID SSUSER has access to the multi-session, single-session and pass-session capabilities of CL/SUPERSESSION.

   ```
   F kls,NAM SET SSUSER PASSWORD=SSUSER
   F kls,NAM SET SSUSER VSPADMIN:Y
   F kls,NAM SET SSUSER SSFLAG:Y
   ```

   VSPADMIN:Y defines administrator authority for SSUSER.

Perform the following steps to verify CL/SUPERSESSION installation.

Start the CL/SUPERSESSION Address Space

Activate the node by issuing the following VTAM command from the MVS console:

```
V NET,ACT,ID=newname
```

where *newname* is the VTAM major node name copied into SYS1.VTAMLST.

Then, enter this command from the MVS console:

```
S kls
```

where *kls* is the name of the started task that you modified in "Modify the Started Task JCL" on page 30.

As the CL/SUPERSESSION address space initializes, startup messages appear on SYSLOG. When you receive the following message, continue with the next step.

```
KLVIN408 CANDLE ENGINE VERSION 147 READY ON cpu(sernum): GSA(hexadd)
```

where *cpu* is the system ID, *sernum* is the CPU serial number, and *hexadd* is the hexadecimal address of the global storage area (GSA).

If you have not installed the English NLS i.e. FMID MLS1471, the default language code of 0 in NAM must be changed to the language code you have installed. If you have installed multiple NLS FMIDs, change the language code to whatever language you want to be active during the installation verification process. See the following table for all CL/SUPERSESSION-supported national languages and their language codes.

Table 8. National Language FMIDs and Codes

Language	FMID	Code
US English	MLS1471	1
French	MLS1472	2
German	MLS1473	3
Candian French	MLS1474	4
Italian	MLS1475	5

Issue the following command to change your default language code:

```
F kls,NAM SET GLOBAL VSPLANG:n
```

where *n* is the language code.

Test the CT/Engine Operator Facility

1. Log onto APPLID *&lsvt*0 as follows:
   a. From any VTAM terminal not currently in session with another application, enter **LOGON APPLID(*&lsvt*0)**.
   b. Enter **OPERATOR** as the user ID and **OPERATOR** as the password.
   c. You will be prompted to enter a new password. Enter a new password for the OPERATOR 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:

   LOGOFF

Test CL/GATEWAY Application Selection

This will demonstrate the application selection capabilities of CL/GATEWAY.

1. To try out configuration KLGICFG1:
   a. From any VTAM terminal not currently in session with another application, enter **LOGON APPLID(*&lsvt*1)**.
   b. Enter **GWUSER** as the user ID and **GWUSER** as the password.
   c. You will be prompted to enter a new password. Enter a new password for the GWUSER user ID.

   The CL/GATEWAY Main Menu appears.
2. To test the signon capabilities of the SINGLE applications, select session ID VPSS from the menu.
3. Enter **GWUSER** as the user ID, and enter the password you specified when you logged onto *&lsvt*1.
4. Enter **LOGOFF** to exit the operator facility.
5. Press F3 to exit.

Note: If CL/SUPERSESSION is recycled, the new password is not saved.

6. (Optional) To try out two more CL/GATEWAY configurations, log onto *&lsvt*2 and *&lsvt*3.

   *&lsvt*2 demonstrates the application selection capabilities of CL/SUPERSESSION without requiring a user ID and password.

   *&lsvt*3 demonstrates the automatic application assignment capabilities of CL/SUPERSESSION. This type of configuration can assign an application automatically, based on user ID, terminal ID, or some other identifiable attribute of the user.

   - To try out configuration KLGICFG2, perform these steps:
     a. Log onto APPLID *&lsvt*2.
     b. Enter a lock password of your choice.
     c. Reenter the same lock password for verification.
     d. Select session ID VPSS.
     e. Enter **GWUSER** as the user ID, and enter the password you specified when you logged onto *&lsvt*1.
     f. Enter **LOGOFF** to exit the operator facility.

        The CL/SUPERSESSION Main Menu appears.
     g. Press F3 to exit.
   - To try out configuration KLGICFG3, perform these steps:
     a. Log onto APPLID *&lsvt*3.
     b. Enter **GWUSER** as the user ID, and enter the password you specified when you logged onto *&lsvt*1. You are signed onto the CL/SUPERSESSION operator application.
     c. Enter **LOGOFF** to exit the operator facility.

        Control of your terminal is returned to VTAM.

Test CL/SUPERSESSION Triggers

1. Log on using configuration KLGICFG1 as follows:
   a. From any VTAM session not currently in session with another application, enter **LOGON APPLID(*&lsvt*1)**.
   b. Enter **SSUSER** as the user ID and **SSUSER** as the password.
   c. You will be prompted to enter a new password. Enter a new password for the SSUSER user ID and a verification password.

   The CL/SUPERSESSION Main Menu appears.
2. Select **VPSS** from the menu.
3. 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 *User's Guide*.)
4. Press F3 to exit.

   Note: If CL/SUPERSESSION is recycled, the new password is not saved.

Stop the Installation Verification Test

1. Stop the CT/Engine address space by issuing the following command from the MVS console:

   ```
   F kls,SHUTDOWN
   ```

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

   CT/Engine 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 MVS console within 15 seconds.

   ```
   F kls,SHUTDOWN
   ```

Note About Customization

Before you modify any members, please note 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 to 80 of the first record contain a number, it is assumed that *all* records have a number in columns 73 to 80.
  - If columns 73 to 80 of the first record do not contain a number, it is assumed that *none* of the records have a number in columns 73 to 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 to 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 to 80 of subsequent lines will be treated as data.

This can cause unpredictable results.

Installation Verification Cleanup

As installed, member RLSPARM(KLSSYSIN) contains a specification to automatically initialize the installation verification environment. You must change that specification to initialize the normal CL/SUPERSESSION environment, as follows:

1. Delete the line that contains the specification

   ```
   INITIAL(KLSSTRIV)
   ```

2. Remove the comment asterisk (*) from the line that contains the specification

   ```
   *INITIAL(KLSSTART)
   ```

The installation verification procedure is complete.

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 *Customization Guide*.

If you are migrating from a previous version of CL/SUPERSESSION, you must first follow the appropriate procedure as detailed in “Migration from Earlier Versions” on page 141. Then you may proceed with customization of the product by referring to the the remainder of this manual and to the *Customization Guide*.

What's Next

If you have followed the procedures in "Perform Initial CL/SUPERSESSION Configuration Procedures" on page 26, your system should consist of the following:

- Two users: a CL/GATEWAY-only user (*gwuser*), and a CL/SUPERSESSION user (*ssuser*). Multisession environments can be created through the CL/SUPERSESSION user. Both users have been created as product administrator users.
- A default set of applications.
- The Network Access Manager (NAM) security system.
- The Network Accounting Facility (NAF).
- The CT/Engine operator facility.
- An SAA™/CUA™ interface to the CT/Engine operator facility.

You may want to perform some or all of the following configuration steps.

- Set up security for CL products.

  To use the CA-ACF2, RACF or CA-TOP SECRET security system, read "Setting Up Security" on page 43.
- Configure CL products further by defining additional applications or modifying the global profile.
  - To define additional applications and set up authorization application lists, read "Defining Applications" on page 51.
  - To modify the global profile and create group and user profiles, read "Using Administrator Functions" on page 77.

This manual assumes that you know how to start and stop the installed CL product. The last chapter, "Starting and Stopping" on page 129, reviews these procedures.

Chapter 4. Setting Up Security

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

Member KLVINNAM in library *&thilev*.TLVPARM 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, the CL products use 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.

Using RACF

Before you install the RACF interface, make sure *&thilev*.TLSLOAD, *&thilev*.TLVLOAD, 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 CT/Engine 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 RACF.
2. Change DB to NODB.

The member should look like this when you finish:

```
DEFAULT DSNAME(&rvhilev.RLSNAM)   -
RACF                                -
NODB
```

You may need to change the current value assigned to the RESERVE parameter in *&rhilev*.RLSPARM(KLSSYSIN). See the *Customization Guide* for more information on the RESERVE parameter.

Restart CT/Engine to initialize the change.

Using CA-ACF2

Before you install the CA-ACF2 interface, make sure *&thilev*.TLSLOAD, *&thilev*.TLVLOAD, 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*.TLSSAMP(KLS@ASM) into *&rhilev*.RLSSAMP.
2. Member KLSA2NEV of *&thilev*.TLSSAMP is the Candle-supplied interface to ACF2.

   Assemble and link KLSA2NEV with AC=1 and AMODE=24 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 CT/Engine 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 CT/Engine 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 *klv* is the name of the CT/Engine 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 CT/Engine to initialize the change.

This concludes the steps necessary for basic installation of ACF2 security validation. If you would like to make full use of some of the recent ACF2 enhancements, please refer to the *Customization Guide*.

Note: CA-ACF2 has significant below-the-line storage requirements for large numbers of users. You may need to change the current value assigned to the RESERVE parameter in *&rhilev*.RLSPARM(KLSSYSIN). See the *Customization Guide* for more information on the RESERVE parameter.

Using CA-TOP SECRET

Before you install the CA-TOP SECRET interface, make sure *&thilev.*TLSLOAD, *&thilev.*TLVLOAD, 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.*TLSSAMP(KLSVSSEC) into *&rhilev.*RLSPNLS.
2. If KLS@ASM is not already in *&rhilev.*RLSSAMP, copy *&thilev.*TLSSAMP(KLS@ASM) into *&rhilev.*RLSSAMP.
3. Assemble and link KLSTSNEV with AC=1 and AMODE=24 into the *&rhilev.*RLSLOAD library. (Member KLSTSNEV of *&thilev.*TLSSAMP is the Candle-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 RACF.
   b. Change DB to NODB.

      The member should look like this when you finish:

      ```
      DEFAULT DSNAME(&rvhilev.RLSNAM)        -
      RACF                                      -
      NODB
      EXIT=KLSTSNEV
      ```

   c. Define the CT/Engine 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 CT/Engine 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.

```
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))
```

Figure 2. Sample FACILITY Statements for CA-TOP SECRET

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 CT/Engine 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 CT/Engine operator facility:

```
NAM SET userid PASSWORD=password
```

You can access the CT/Engine operator facility from the Main Menu. (For more information on the CT/Engine operator facility, see the *Operator's Guide*.)

Alternatively, you can issue the commands from the system console with the MVS MODIFY command:

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

where *kls* is the name of the CT/Engine 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 CT/Engine 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 inhouse), 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 *Customization Guide*.

Chapter 5. Defining Applications

This chapter describes how to define applications to CL/SUPERSESSION and CL/GATEWAY.

The APPLDEF command defines the applications that are accessible from all gateways. When you define applications with APPLDEF, they are available to all users. If you are using an application selection panel, CL/SUPERSESSION presents all applications on that panel.

Optionally, you can associate an authorized application list (APPLIST) with the user or gateway to restrict application access.

You can define applications in profiles. However, Candle recommends that you include a member in a command library for all APPLDEF commands that define production applications. See the Candle-supplied 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, please refer to the *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 products offer three methods for establishing sessions with applications.

PASS A PASS (VTAM CLSDST PASS) type session transfers control to the selected session. CL/SUPERSESSION and CL/GATEWAY do not maintain control of the session. After the session is logged off, the system resumes the programmed starting environment. This option does not use virtual terminals.

SINGLE A SINGLE type session uses a virtual terminal. CL/SUPERSESSION or CL/GATEWAY remains in control of the session. When you log off the session, you are returned to the Main Menu.

MULTI A MULTI type session is only available with CL/SUPERSESSION. As the name implies, you can run more than one MULTI type session at a time. In addition, CL/SUPERSESSION features, such as triggers, windows, and cut and paste, remain available at all times. This option uses virtual terminals.

Copy KLSCAPLS and KLGCAPLS into *&rhilev*.RLSCMDS from *&thilev*.TLSCMDS.

CL/GATEWAY gets its application definitions from *&rhilev*.RLSCMDS. Members KLSCAPLS and KLGCAPLS in *&rhilev*.RLSCMDS contain the APPLDEF commands issued during product startup that define applications. KLGCAPLS, as delivered, contains APPLDEF commands that define PASS and SINGLE type applications. KLSCAPLS, as delivered, contains APPLDEF commands that 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 we show 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 *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 the DESC parameter to describe the session and clarify its use. This parameter is optional.

Your application definition should look something like this:

```
APPLDEF TSOA                              -
        DEST(your_network_name_for_TSO)   -
        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. See "Selecting a Virtual Terminal Pool" on page 57 for instructions.
- 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 we show here. 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. See “Selecting a Virtual Terminal Pool” on page 57 for instructions.
- 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 CT/Engine address space.
- Log onto the CT/Engine operator facility through the Main Menu and issue one of the following commands:

  ```
  KLGCAPLS
  ```

  or

  ```
  KLSCAPLS
  ```

- Issue one of the following commands from the MVS system console:

  ```
  F kls,KLGCAPLS
  ```

  or

  ```
  F kls,KLSCAPLS
  ```

  where *kls* is the name of the CT/Engine 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.

Selecting a Virtual Terminal Pool

Because a physical terminal is usually allowed only one session at a time, CT/Engine 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*. Virtual terminal pools let you

- 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 product 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*.TLSCMDS.

Table 9. APPLDEF POOL Values

Type of Application	Pool
CT/Engine operator facility	VIRTPARS
TSO	TSOPOOL
TSO with VTAM 3.3 ESA 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

For example, to define a SINGLE TSO application under VTAM 3.3 named TSOA, you would use the pool named **TSOESA**. Your APPLDEF command might look like this:

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

Virtual Terminal Pool Sizes

The virtual terminal pools shipped with your CL product 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 accomodate the users on your system. Be sure to add the corresponding virtual terminals to your VTAM definitions.

Table 10 (Page 1 of 2). Virtual Terminal Pool Default Sizes

Application	Pool	Size
VTPOPER (CT/Engine operator facility)	VIRTPARS	Contains 1 terminal, enough for any application that can handle parallel sessions.
TSO	TSOPOOL	Contains 10 terminals, usually enough to handle at least 200 TSO users. The number of terminals should be 3%–5% of the active user base, or enough terminals to support concurrent session establishment in any 1-second period.
TSO under VTAM 3.3 ESA and above	TSOESA	Contains 10 terminals, usually enough to handle at least 200 TSO users. The number of terminals should be 3%–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.

Table 10 (Page 2 of 2). Virtual Terminal Pool Default Sizes		
Application	**Pool**	**Size**
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.
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 for the duration of 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 *Customization Guide*.

Increasing the Size of a Virtual Terminal Pool

Virtual terminal pools are defined to the following:

1. Your CL product with the VSM command.
2. The network in SYS1.VTAMLST application major nodes.

   Note: The virtual terminal in the pool are 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**.
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 CT/Engine operator facility.

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

   ```
   VSM DEFINE TSOPOOL KLST0001 THROUGH(10)
   ```

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

   ```
   VSM DEFINE TSOPOOL KLST0001 THROUGH(20)
   ```

Restart your CL product to initialize your new virtual terminal pool definitions.

To add virtual terminals dynamically, issue this command through the CT/Engine 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 shutdown and restart your CL product. 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.*TLSSAMP.

Restricting User Access to Applications

CL/GATEWAY 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 which 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, 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.

When you create an authorized application list, only those applications 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 (some examples follow):

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. (Refer to the APPLIST command in the *Operator's Guide* for more information.)
4. Assign application lists to users through the user profile screens, as discussed in "Assigning Static Application Lists" on page 69.

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 CT/Engine 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 your CL product. To save your new definition, you must change the KLGCAPLT member in your commands library and then initialize the change through the CT/Engine 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(TSOPOOL)


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 will look like this:

```
TSOA
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 CT/Engine operator facility:

```
KLGCAPLT
```

4. Assign the application list to users. (See “Assigning Static Application Lists” on page 69.)

Example 2: The wildcard character

The following example creates an application list (PROGSYS) that contains 3 members and assigns the application list to the systems programmers.

1. 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

   ```
   'TSO*'
   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 the CT/Engine operator facility:

   ```
   KLGCAPLT
   ```

4. Assign the application list to users. (See “Assigning Static Application Lists” on page 69.)

Example 3: The GROUP parameter for separate menu panels

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 to be MULTI applications. That is:
   - Member KLSCAPLS of *&thilev*.TLSCMDS includes APPLDEF commands that define TSO, IMS, and CICS as SINGLE applications with GROUP=100.
   - Member KLGCAPLS of *&thilev*.TLSCMDS 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 CT/Engine operator facility:

   ```
   KLGCAPLT
   ```

4. Assign the application list to users. (See “Assigning Static Application Lists” on page 69.)

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 CT/Engine operator facility (VTPOPER).

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

   ```
   KLGCAPLT
   ```

4. Assign the application list to users. (See “Assigning Static Application Lists” on page 69.)

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 "Using Administrator Functions" on page 77.
- 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 "Gateway Configuration" in the *Customization Guide*.

Assigning a Default Static Application List

After building 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. Tab to **Application List ID**, fill in the APPLIST name, and press Enter.
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.
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/GATEWAY 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 1- to 8-character session name used by CL/SUPERSESSION and CL/GATEWAY 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.

With RACF

Modify your configuration as follows.

1. Add the following entry to *&rhilev*.RLSPARM(KLVINNAM):

   ```
   CLASSES=dynaplst
   ```

   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 example above or modify your site's resource class with the same definition.

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

1. Issue the RDEFINE command using APPL as the class. The resource names are applids and/or session IDs (see "Session Types" on page 52). 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 defined within CL/GATEWAY or 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 CT/Engine operator facility. See the *Operator's Guide* for more information on the NAM RACLIST command.

Note: References to session ID, above, can also include or be replaced by **VTAM network name (APPLID)**. Refer to "Using Administrator Functions" on page 77.

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 *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=dynaplst
   ```

   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 (see "Session Types" on page 52).

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: References to session ID above can also include or be replaced by **VTAM network name (APPLID)**. Refer to "Using Administrator Functions" on page 77.

With CA-TOP SECRET

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

1. Copy dialog KLSVSSEC from *&thilev*.TLSSAMP 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 2 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=dynaplst
   ```

   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

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

1. 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: References to session ID above can also include or be replaced by **VTAM network name (APPLID)**. Refer to "Using Administrator Functions" on page 77.

CA-TOP SECRET Versions 4.2 and Later Configuration

CA-TOP SECRET 4.2 modified the technique that CT/Engine 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.*
2. The following CA-TOP SECRET commands can be used to define an RDT class

   ```
   TSS ADD(RDT) RESCLASS(external_class) RESCODE(id)
   ```

   where *external_class* is the class you specified in the "EXTERNAL=ext_class" statement 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: References to session ID above can also include or be replaced by **VTAM network name (APPLID)**. Refer to "Using Administrator Functions" on page 77.

Chapter 6.
Using Administrator Functions

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

Introduction

As the CL products 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 *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 *User's Guide*.

Assigning Administrator Authority

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

- The first method described below 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 CT/Engine 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 MVS console as Modify commands:

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

When the user logs onto 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

Your CL product 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 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 using 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 specified in the global, group, and user profiles are executed in that sequence when the user logs onto CL/SUPERSESSION.
- If you upgraded from Version 115 or earlier to Version 147, profile information in the Network Access Manager (NAM) database was automatically converted to a table format and stored in profile tables in the table database. Refer to “Migration from Earlier Versions” on page 141 for more information on profile conversion.

Creating and Modifying Profiles

This section explains how to invoke the administrator function, make changes to 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 3 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.

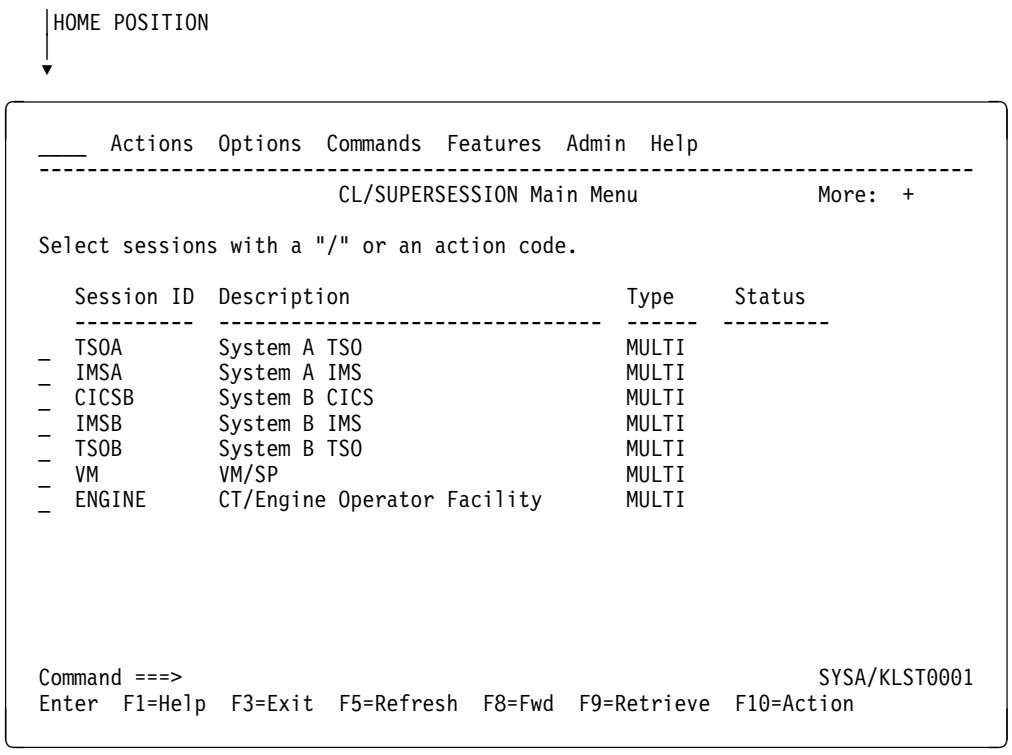

Figure 3. CL/SUPERSESSION Main Menu

The CL/GATEWAY 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 4.

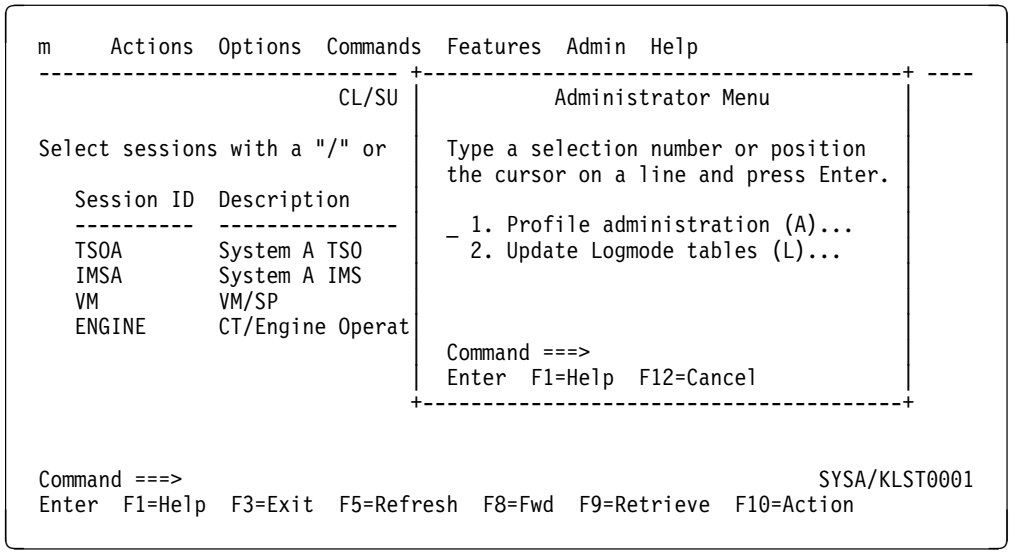

Figure 4. Administrator Menu

Updating the Global Profile

While the Administrator Menu is displayed, select **Profile Administration**. The Profile Selection Menu displays, as shown in Figure 5.

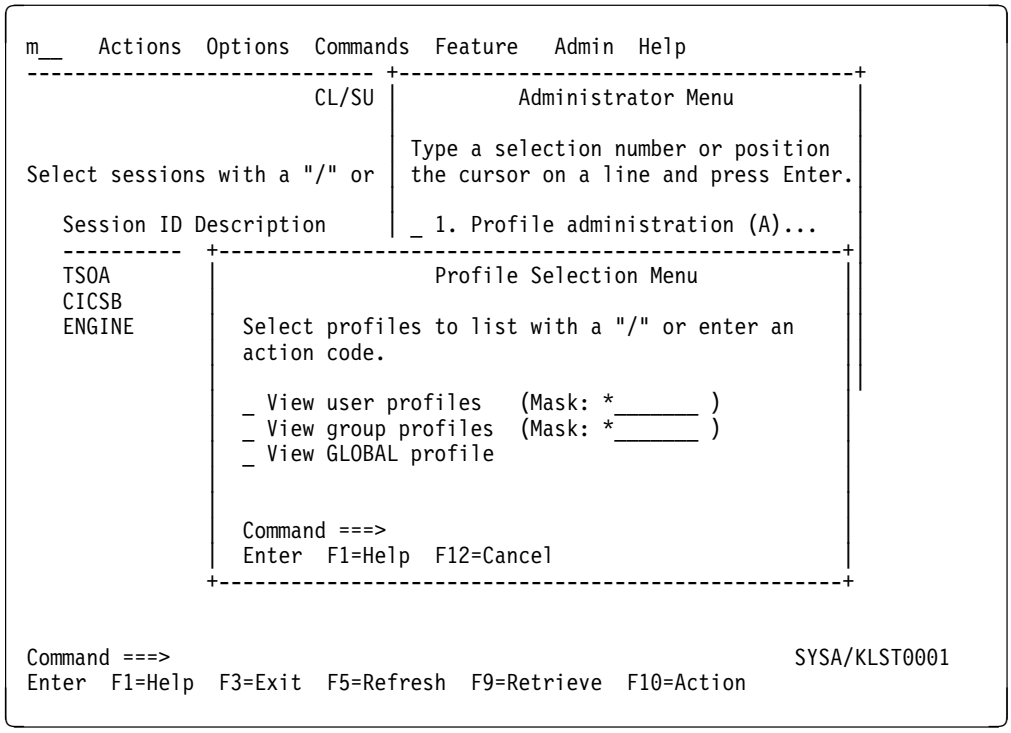

Figure 5. Profile Selection Menu

With the cursor to the left of **View GLOBAL profile**, type **s** (Start) and press Enter. The Update GLOBAL Profile window displays, as shown in Figure 6 on page 84.

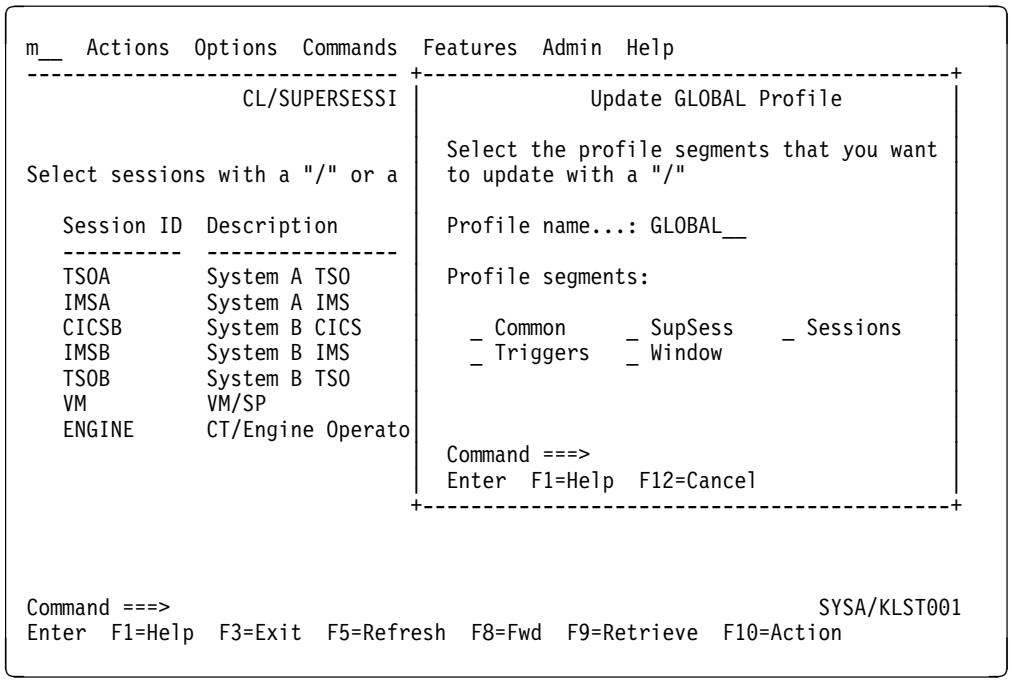

Figure 6. Update GLOBAL Profile Window

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

Note that 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 Sets values common to all CL products.

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 made changes to 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.

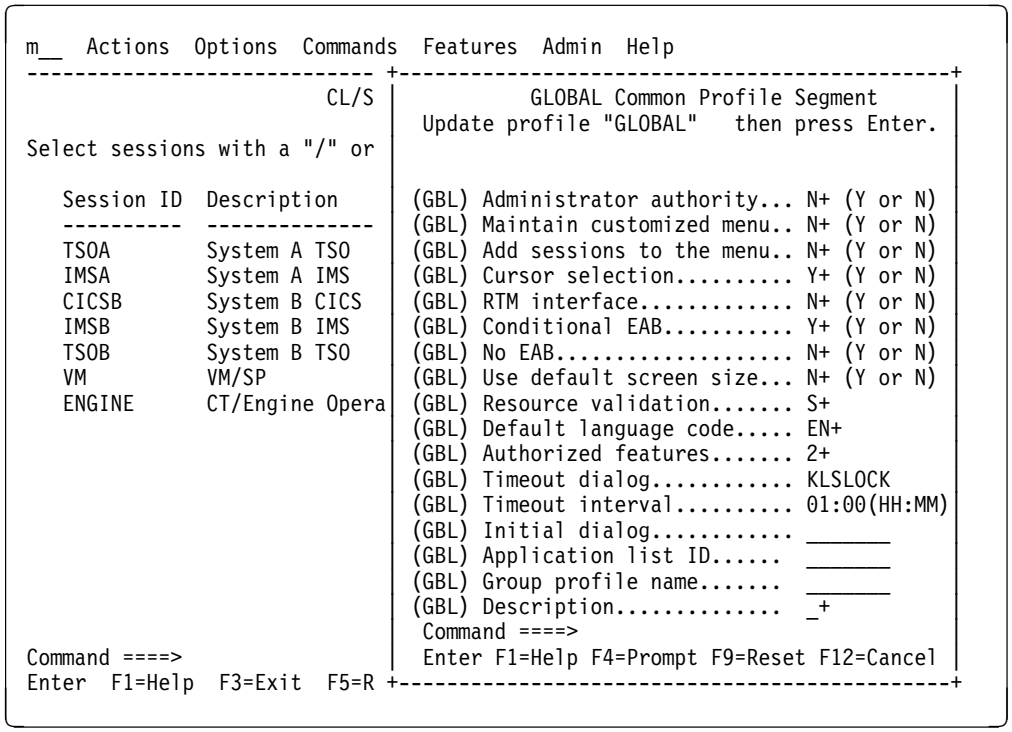

Figure 7. GLOBAL Common Profile Segment Window

Figure 7 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 administrator functions. 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, group, or session 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 *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`) Causes resource validation to use the session 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 8 on page 90, English, French-Canadian, French, and German 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.

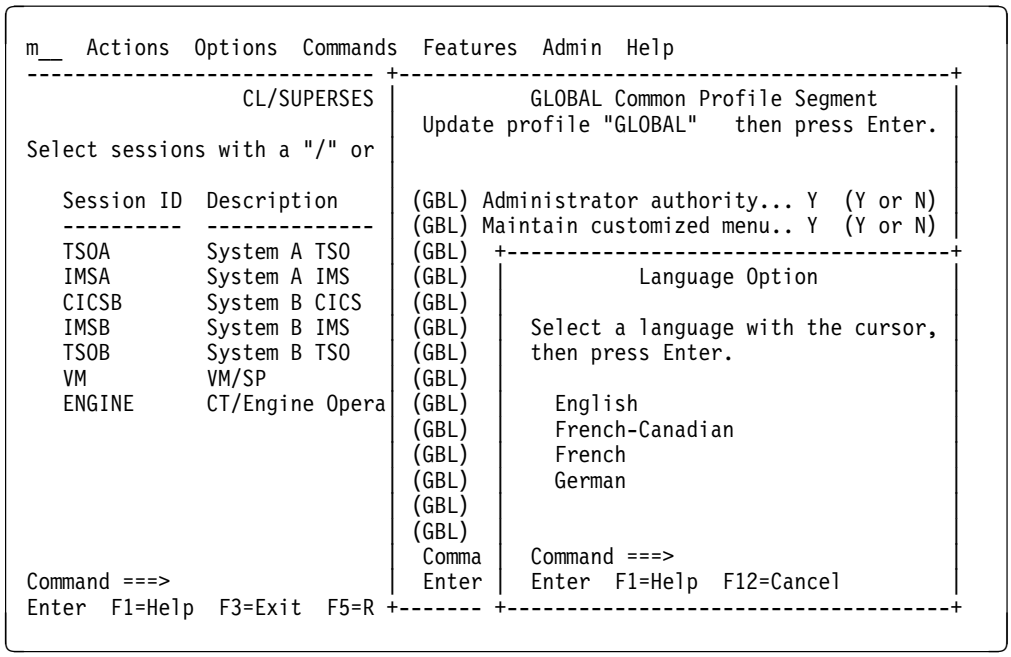

Figure 8. Language Option Window

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 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 9 on page 91 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.

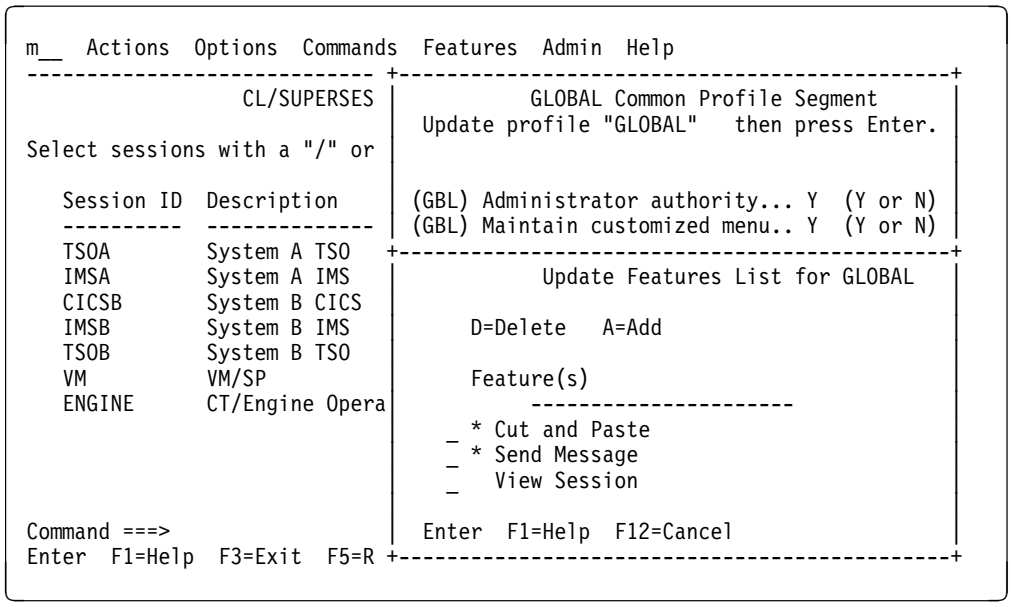

Figure 9. Update Features List Window

Timeout dialog

CT/Engine 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. Candle provides a dialog called KLSLOCK (the default) 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. The named dialog performs additional initialization processing. There is no default.

Note: Customized dialogs are not supplied by Candle. 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 Common profile. 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 10 displays.

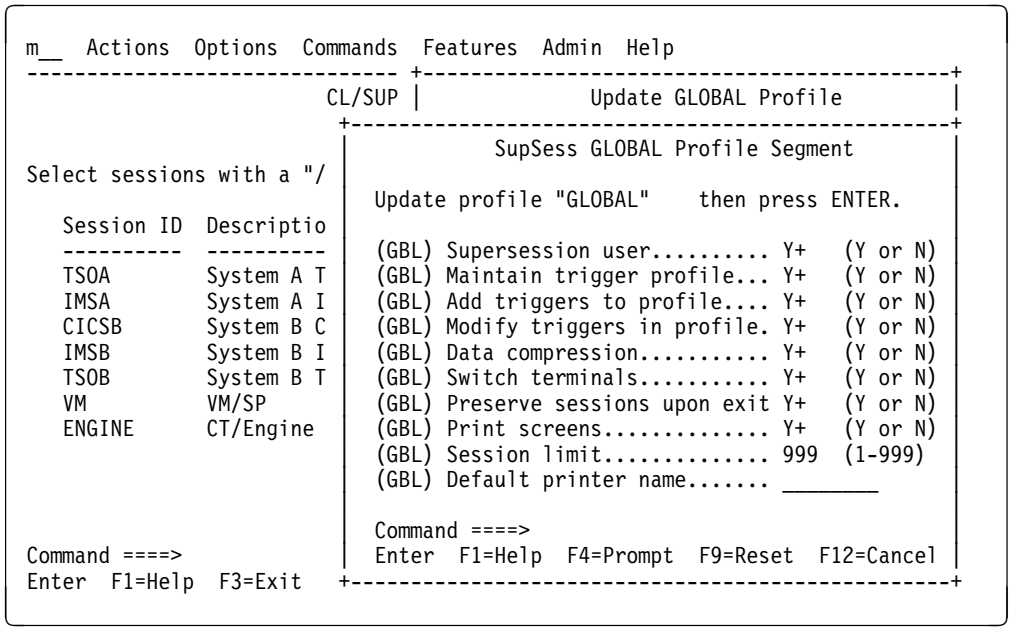

Figure 10. CL/SUPERSESSION GLOBAL Profile Segment Window

Figure 10 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 use CL/SUPERSESSION. If this field is set to N, users will default to CL/GATEWAY only (that is, PASS and SINGLE type sessions only). To assign CL/SUPERSESSION 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. Specifying Y for compression can also cause problems with PC file transfer. For more detailed information concerning data compression, see the *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 onto 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 *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.

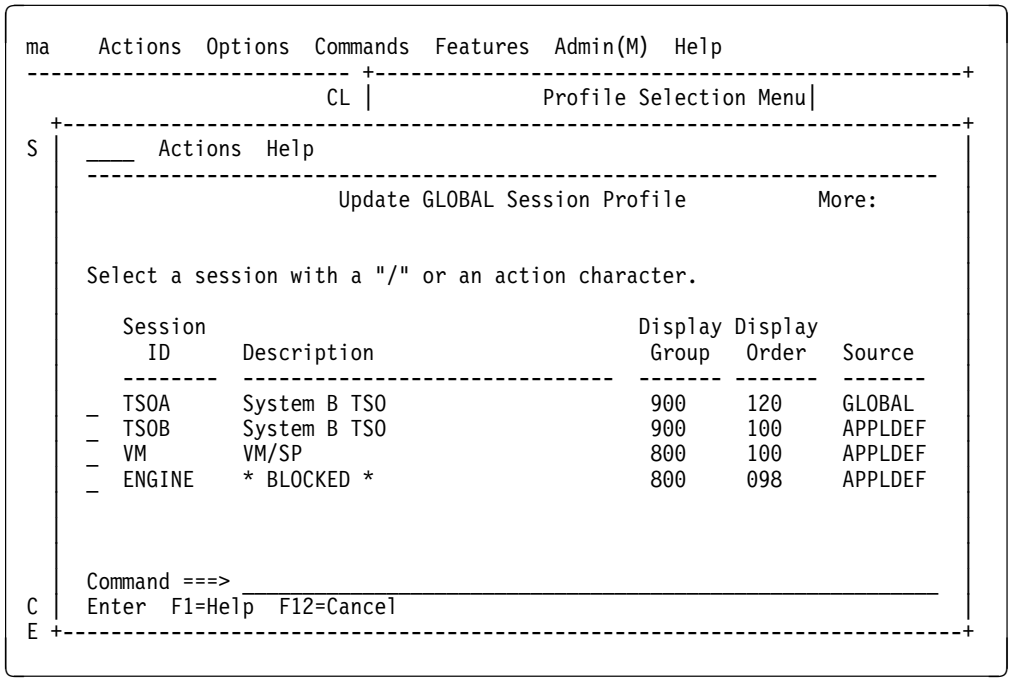

Figure 11. Update GLOBAL Session Profile Window

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.

   D 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.

B Block a defined session from being available to lower level profiles. 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. 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 12). 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.

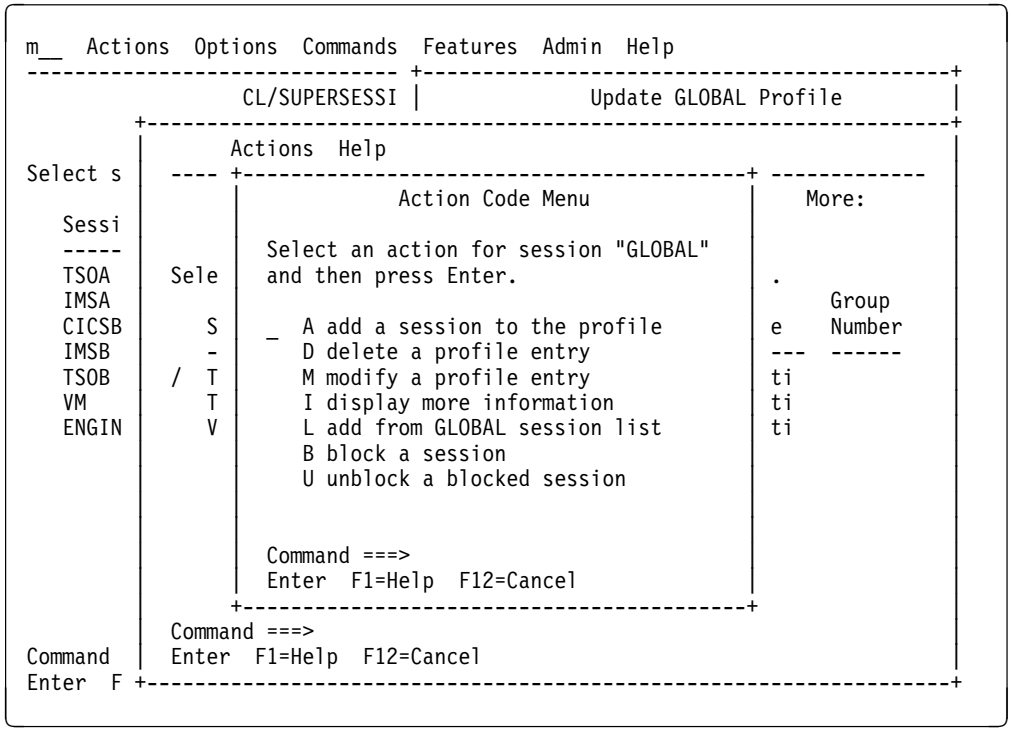

Figure 12. Action Code Menu

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 13 displays.

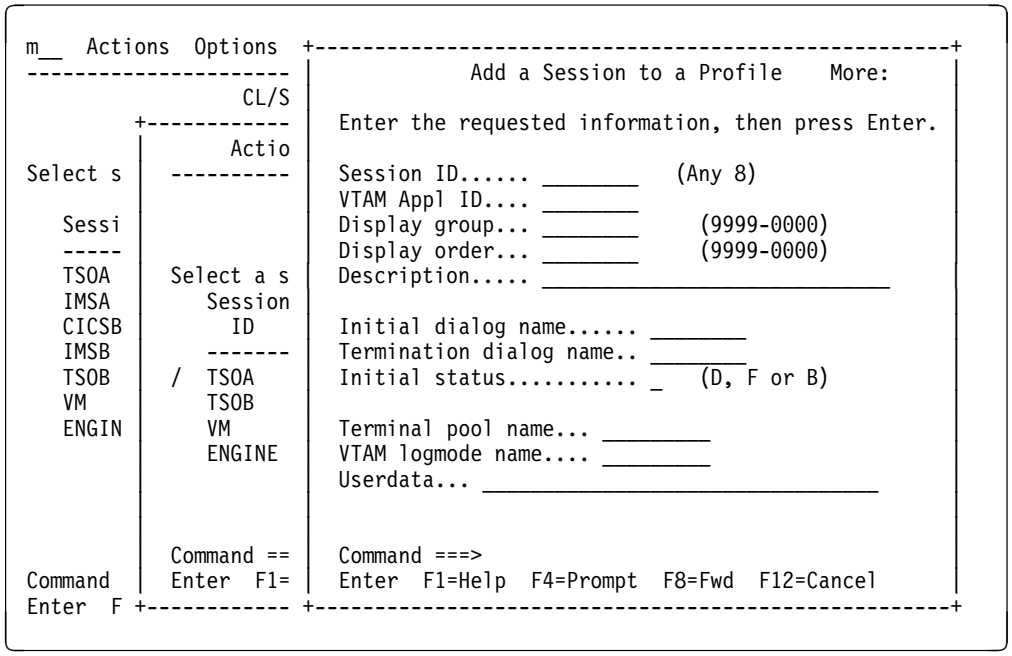

Figure 13. Add a Session to a Profile Window

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 onto 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: Candle supplies a number of sample initial dialogs. 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.

KLSONENG Enters the user ID and password for the CT/Engine operator facility.

KLSONOM Enters the user ID and password for OMEGAMON® for MVS.

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 termination of this session. Refer to the discussion of TERMDLG in the *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 onto 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" on page 51, and the *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/GATEWAY/CL/SUPERSESSION Logmode Tables" on page 123, and the *Customization Guide*.

Userdata Some applications allow or require that user-supplied data be 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 *Customization Guide*.

When you finish entering data, press F8 for a continuation panel. The window in Figure 14 displays.

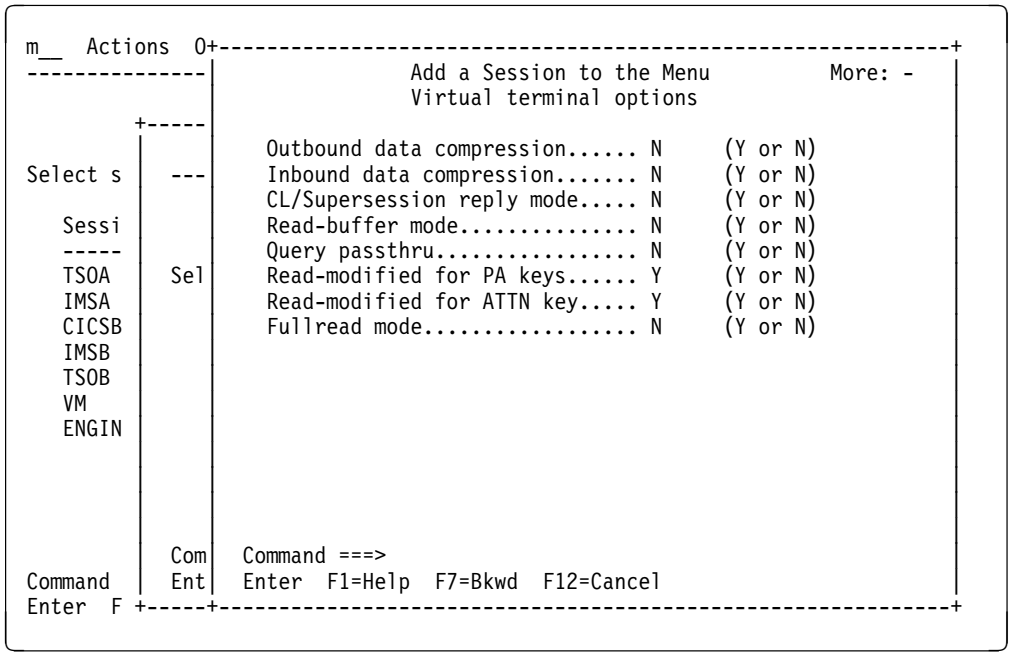

Figure 14. Add a Session to the Menu Window

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 onto 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 15 displays.

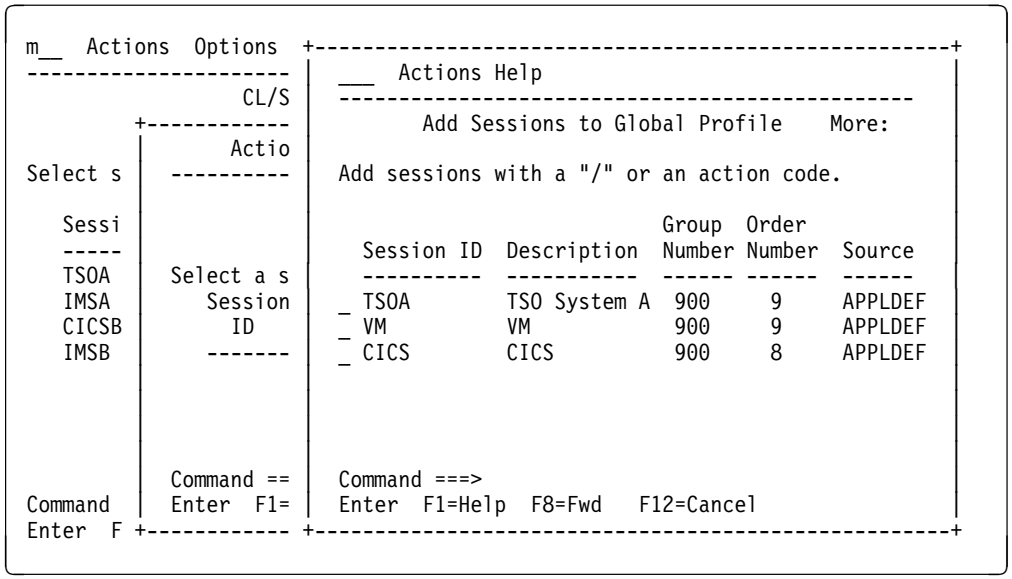

Figure 15. Add Sessions to Global Profile Window

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 16 on page 106 displays.

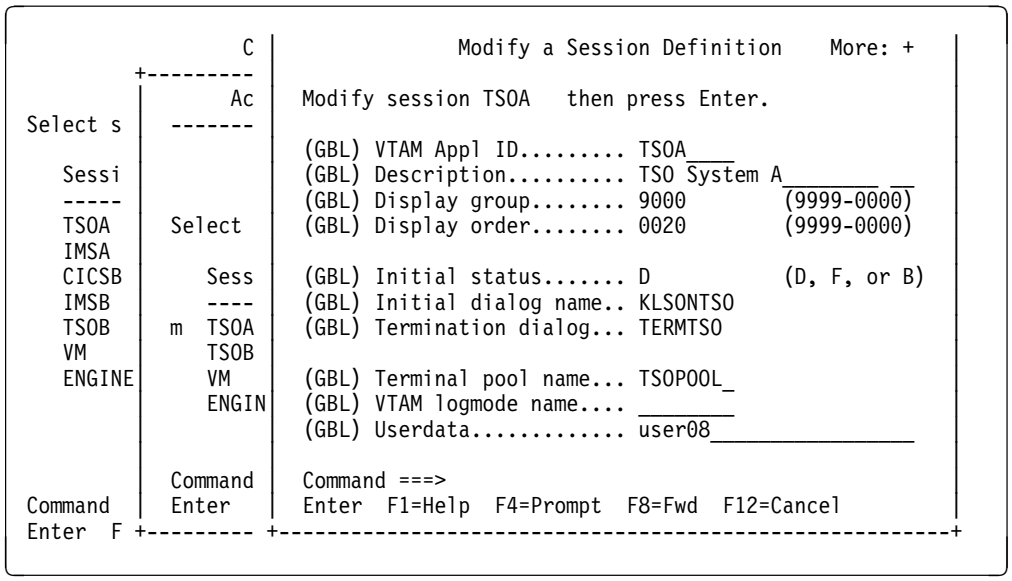

Figure 16. Modify a Session Definition Window

Complete this screen as described in "Adding a Session" on page 99.

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 17 on page 107 displays.

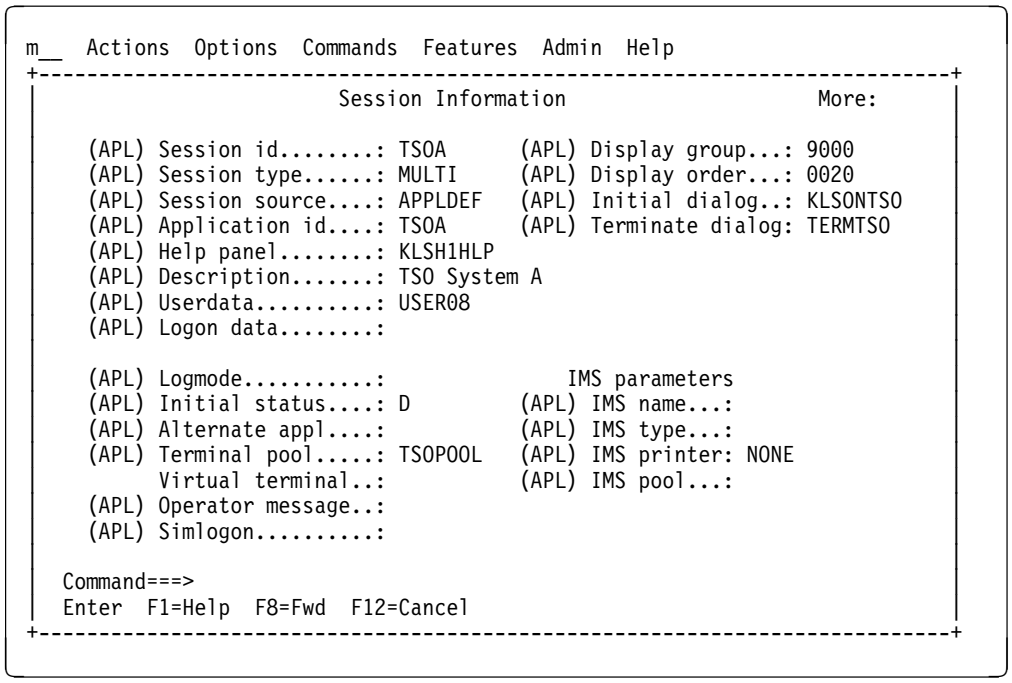

Figure 17. Session Information Window

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 3-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 14 on page 102).

Updating Trigger Profile Options

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

Note: The trigger profile segment is meaningful only if CL/SUPERSESSION has been installed. If you do not have CL/SUPERSESSION, do not complete this window.

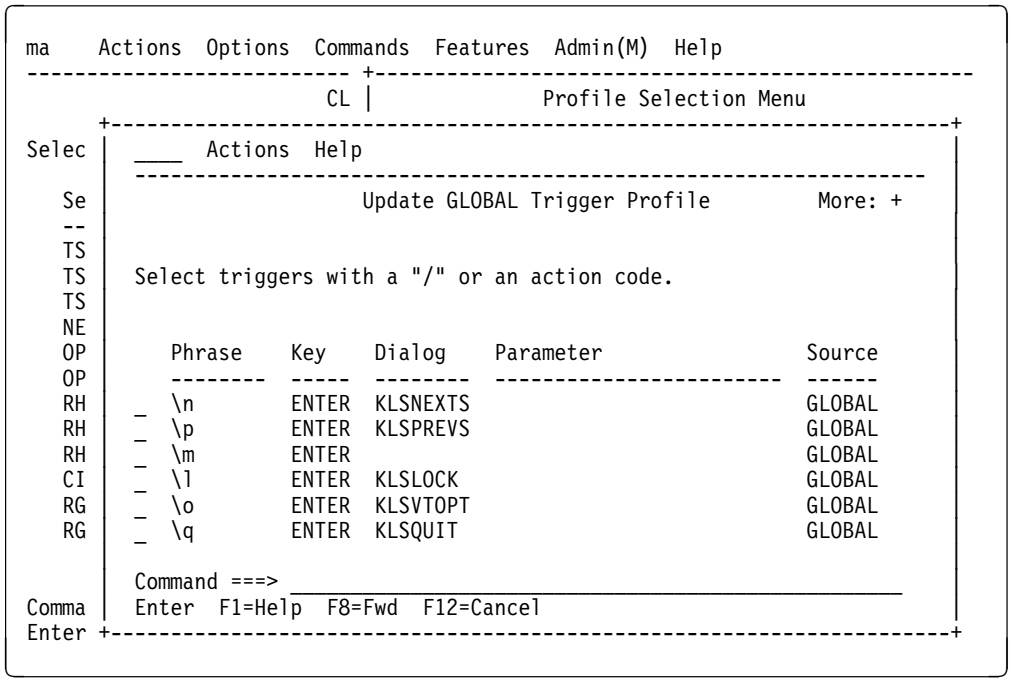

Figure 18. Update GLOBAL Trigger Profile Window

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 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 Candle-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.

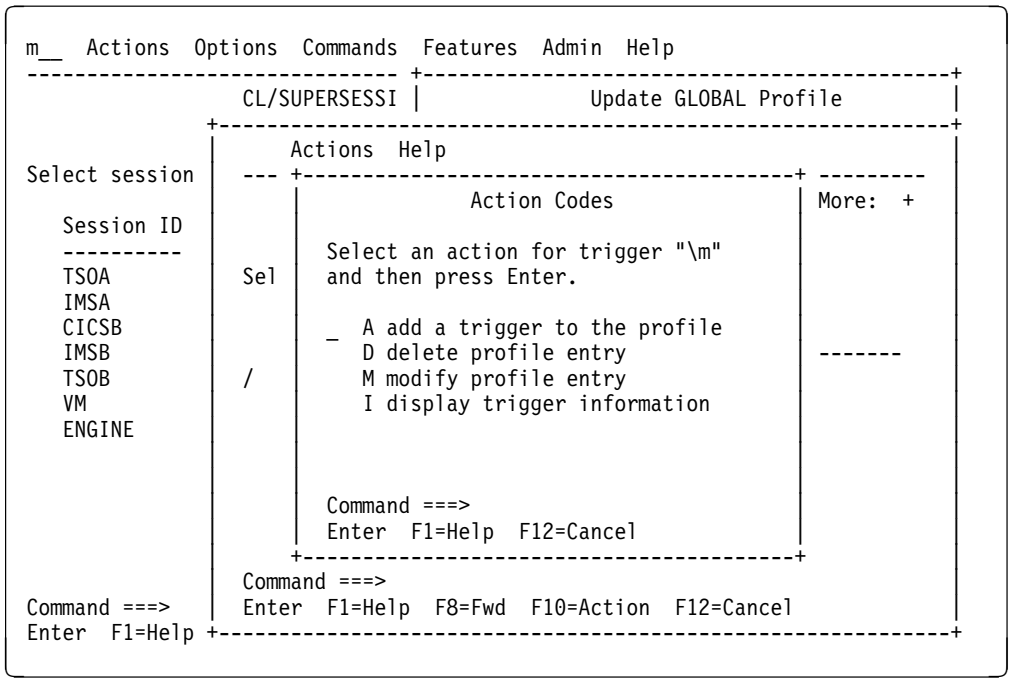

Figure 19. Trigger Action Codes Window

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 20 displays.

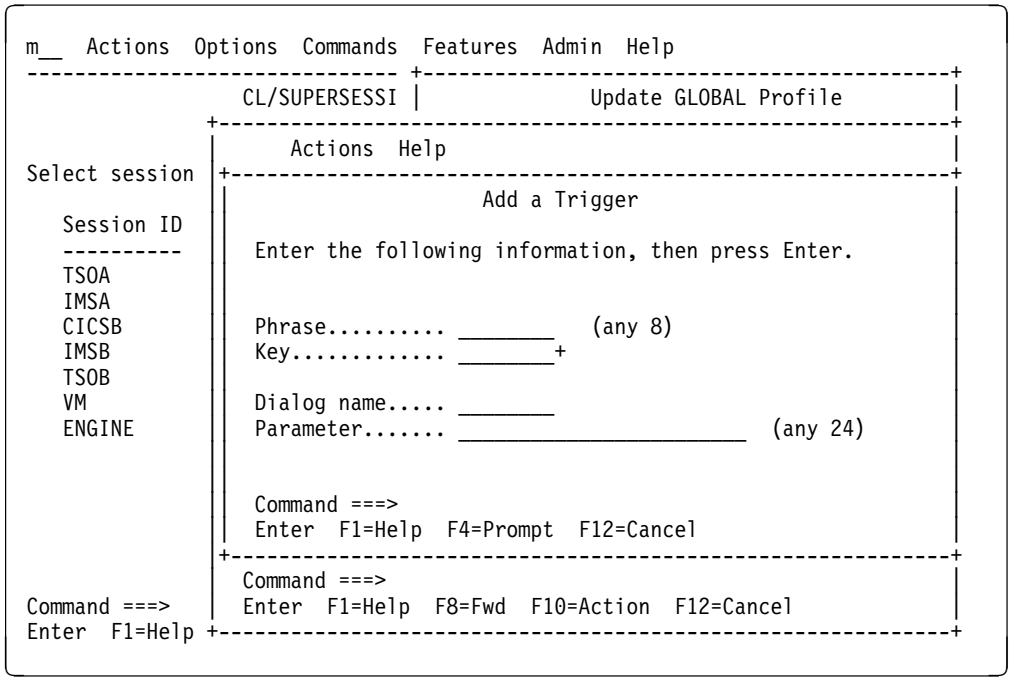

Figure 20. Add a Trigger Window

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 1–8 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 (i.e., 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.

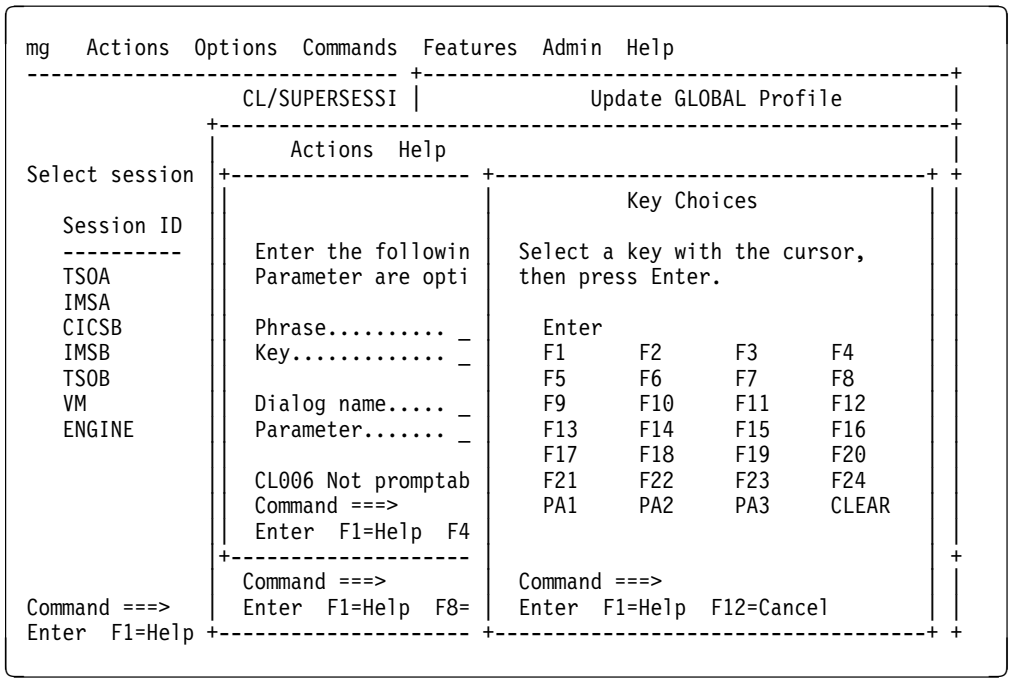

Figure 21. Trigger Key Choices Window

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 very 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 22 displays.

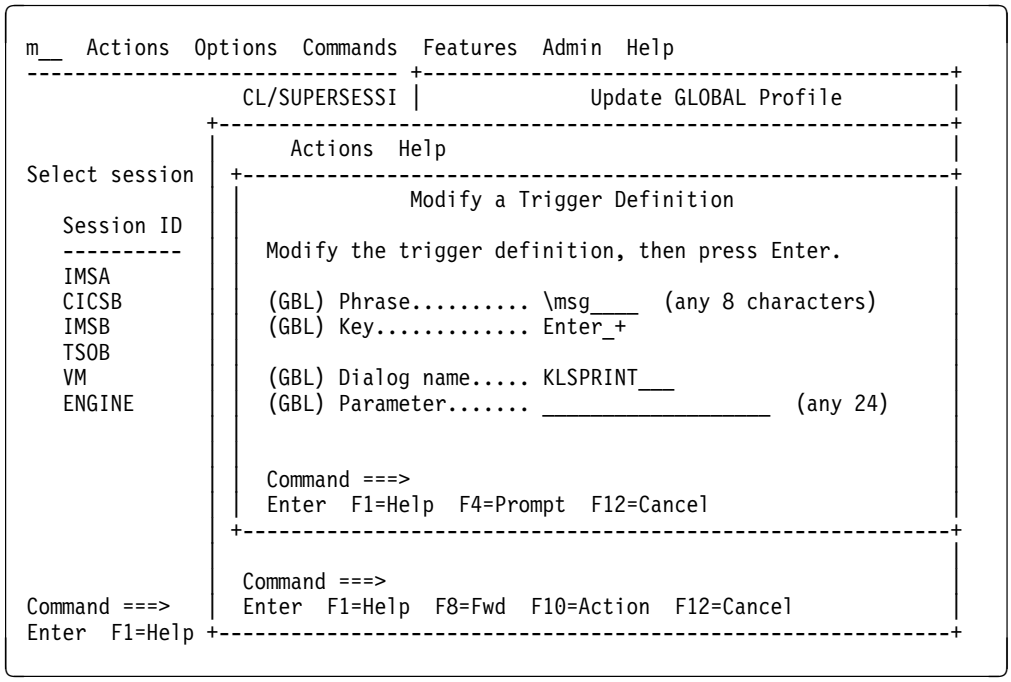

Figure 22. Modify a Trigger Definition Window

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

Complete the fields on this screen as described in “Adding a Trigger” on page 110. 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 Candle-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.

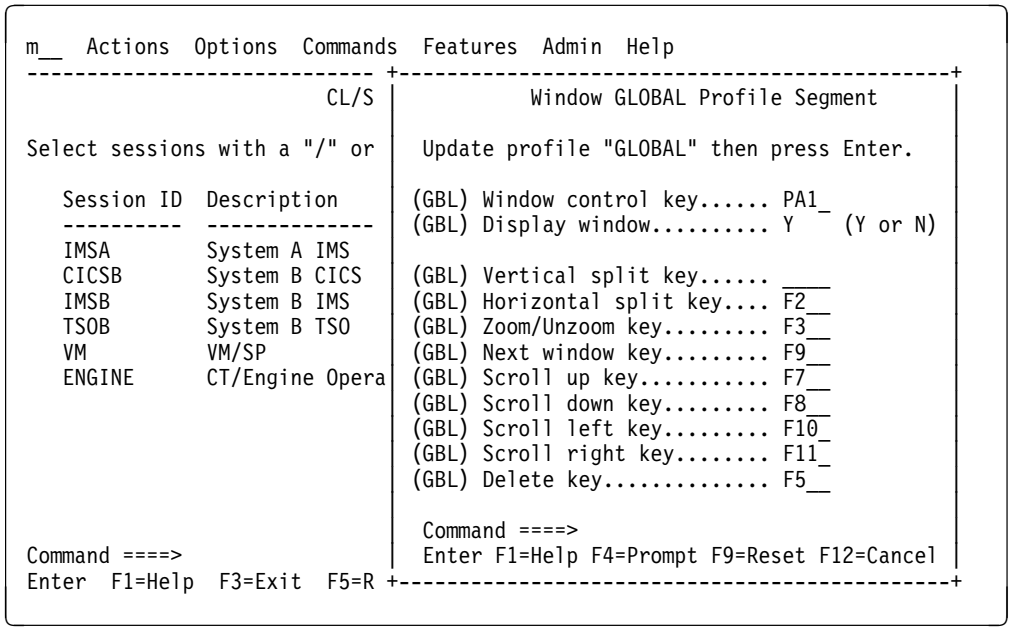

Figure 23. Window GLOBAL Profile Segment Window

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–F24, PA1–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–F24 or PA1–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–F24 or PA1–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–F24 or PA1–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–F24 or PA1–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–F24 or PA1–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–F24 or PA1–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–F24 or PA1–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–F24 or PA1–PA3). The default is F11.

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–F24 or PA1–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.

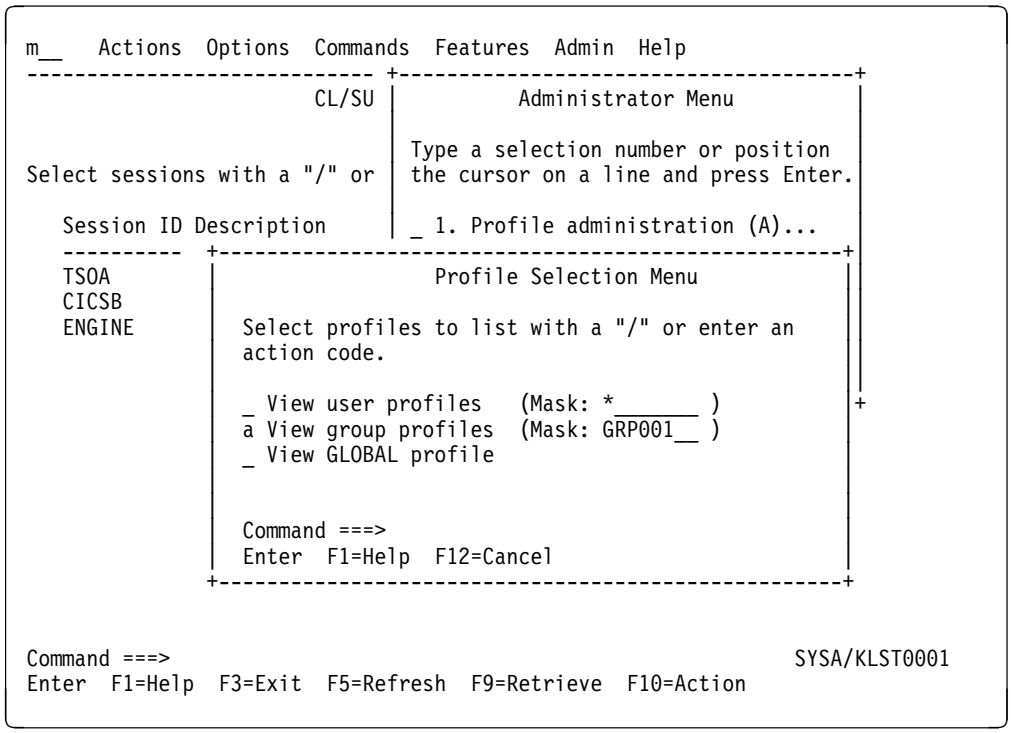

Figure 24. Profile Selection Menu

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 25 on page 117).

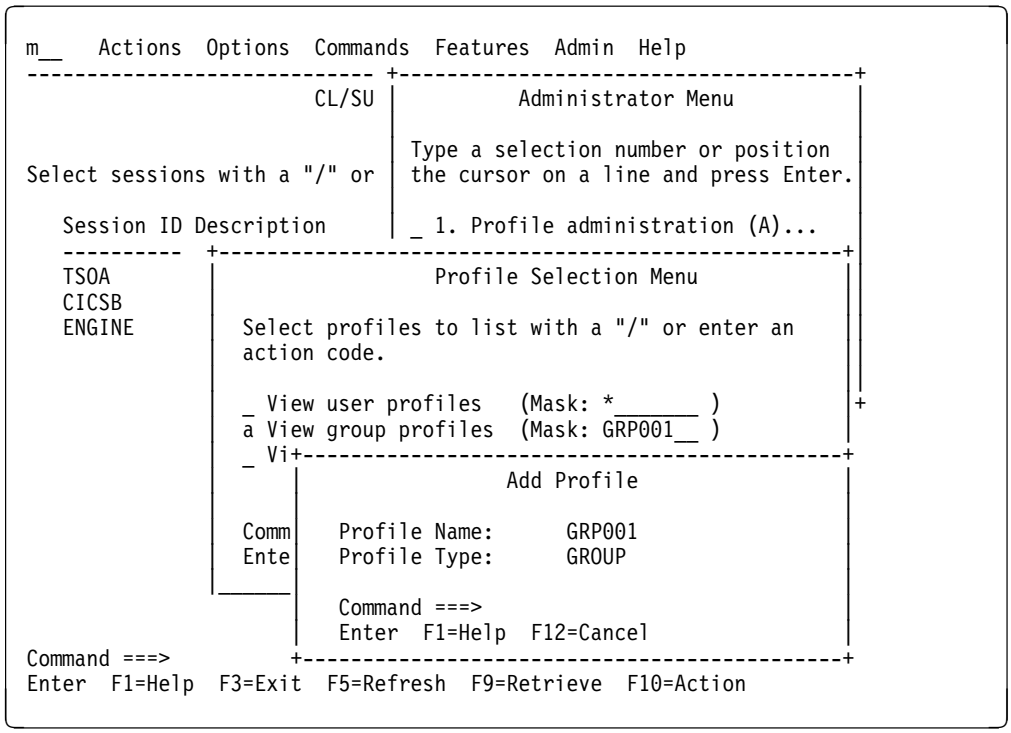

Figure 25. Add Profile Window

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 83.

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 26).

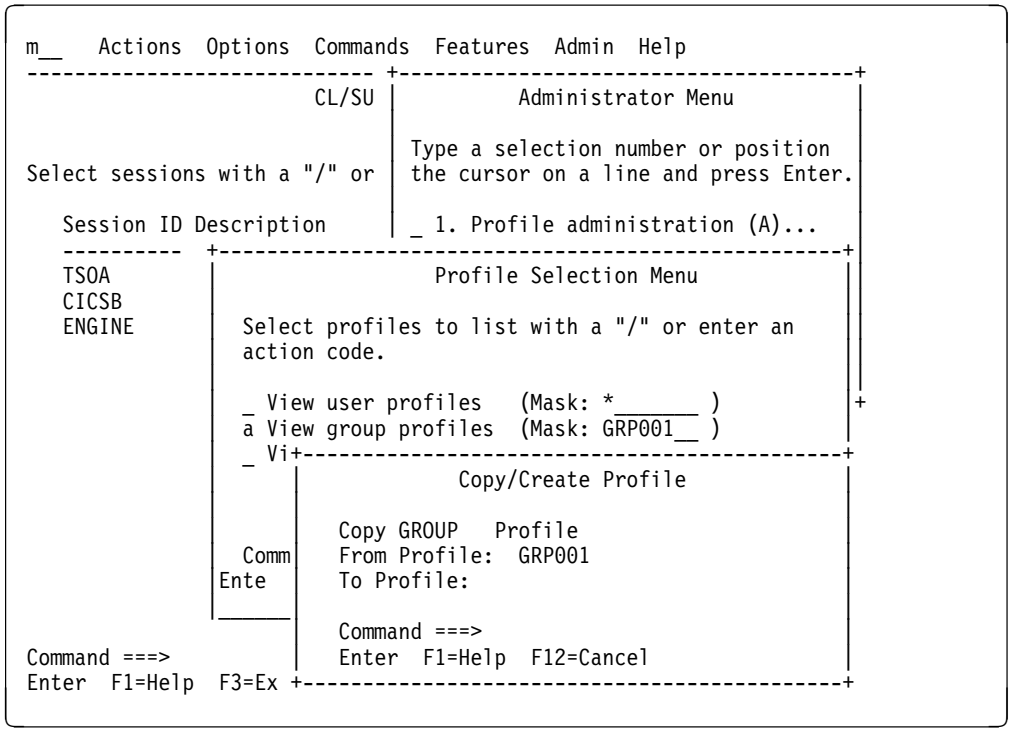

Figure 26. Copy/Create Profile Window

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 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 27). The default mask is *, or all profiles of a selected type.

```
m__   Actions  Options  Commands  Features  Admin  Help
----------------------------- +--------------------------------------+
                         CL/SU |          Administrator Menu          |
                               |                                      |
                               | Type a selection number or position  |
Select sessions with a "/" or  | the cursor on a line and press Enter.|
                               |                                      |
   Session ID Description      | _ 1. Profile administration (A)...   |
   ----------  +-----------------------------------------------------+|
   TSOA        |                  Profile Selection Menu             ||
   CICSB       |                                                     ||
   ENGINE      |  Select profiles to list with a "/" or enter an     ||
               |  action code.                                       |+
               |                                                     |
               |  _ View user profiles   (Mask: *_______ )           |
               |  i View group profiles  (Mask: ADMIN*__ )           |
               |  _ View GLOBAL profile                              |
               |                                                     |
               |                                                     |
               |  Command ===>                                       |
               |  Enter  F1=Help  F12=Cancel                         |
               +-----------------------------------------------------+


Command ===>                                                SYSA/KLST0001
Enter  F1=Help  F3=Exit  F5=Refresh  F9=Retrieve  F10=Action
```

Figure 27. Profile Selection Menu

After you enter the display criteria on the Profile Selection Menu, the Profile Summary window appears. The example shown in Figure 28 on page 121 is the profile summary resulting from a request for all group profiles beginning with the letters **admin**.

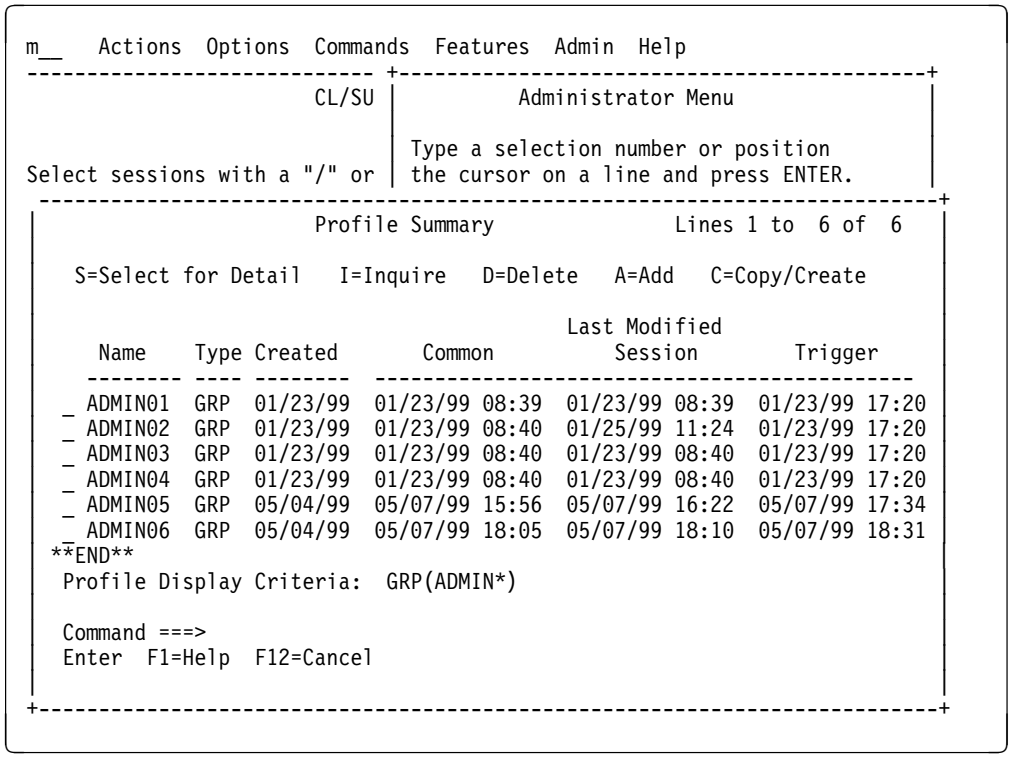

Figure 28. Profile Summary Window

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.

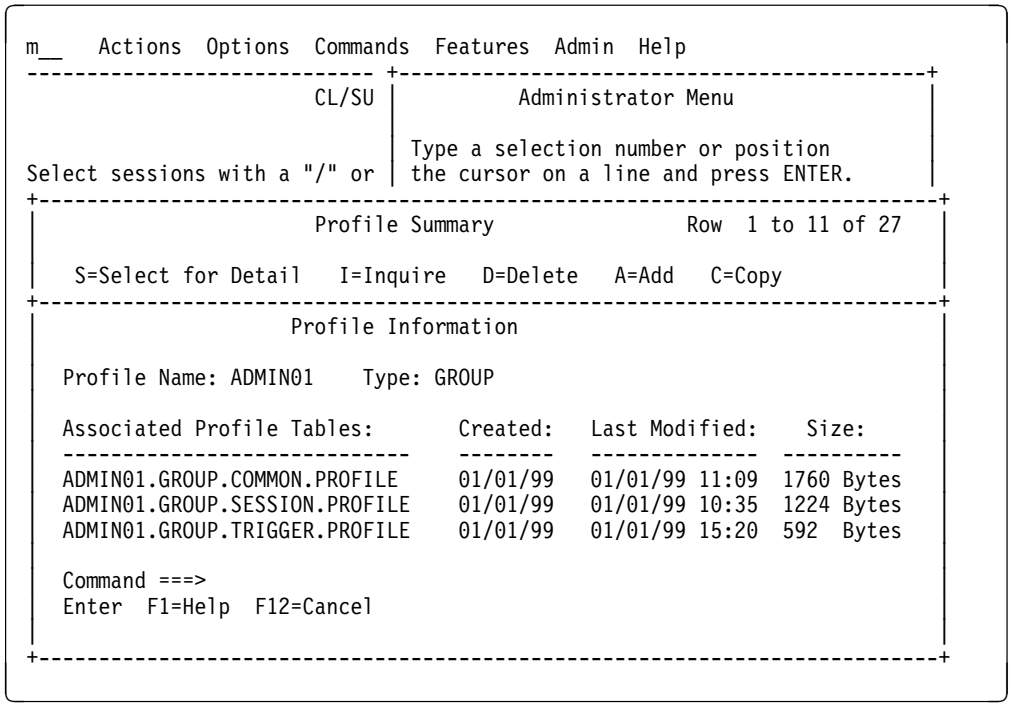

Figure 29. Profile Information Window

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** (Start) 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/GATEWAY/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/GATEWAY and CL/SUPERSESSION maintain their own internal table that contains the VTAM logmode definitions. This section explains how to update your CL/GATEWAY and CL/SUPERSESSION internal logmode table through the Administrator Menu. These modifications do not affect the VTAM logmode table. For a more detailed explanation of logmodes, see the *Customization Guide* and IBM's *VTAM Customization*.

Perform these steps to begin customizing your CL/GATEWAY/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 30) displays.

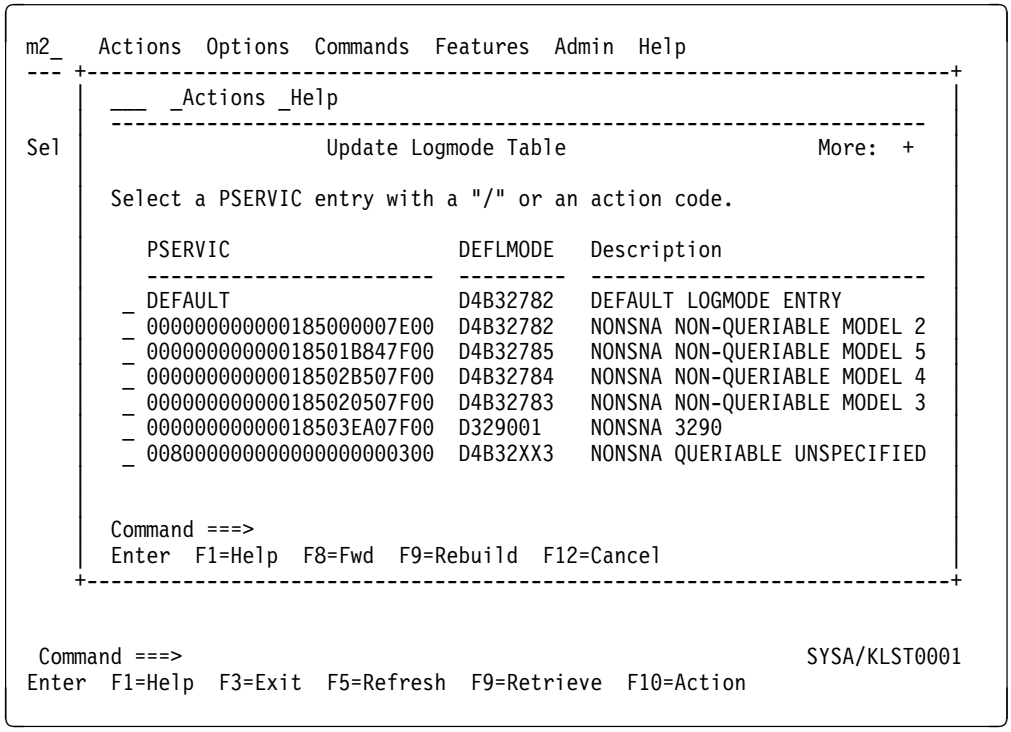

Figure 30. Update Logmode Table Window

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 onto 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 31) appears.

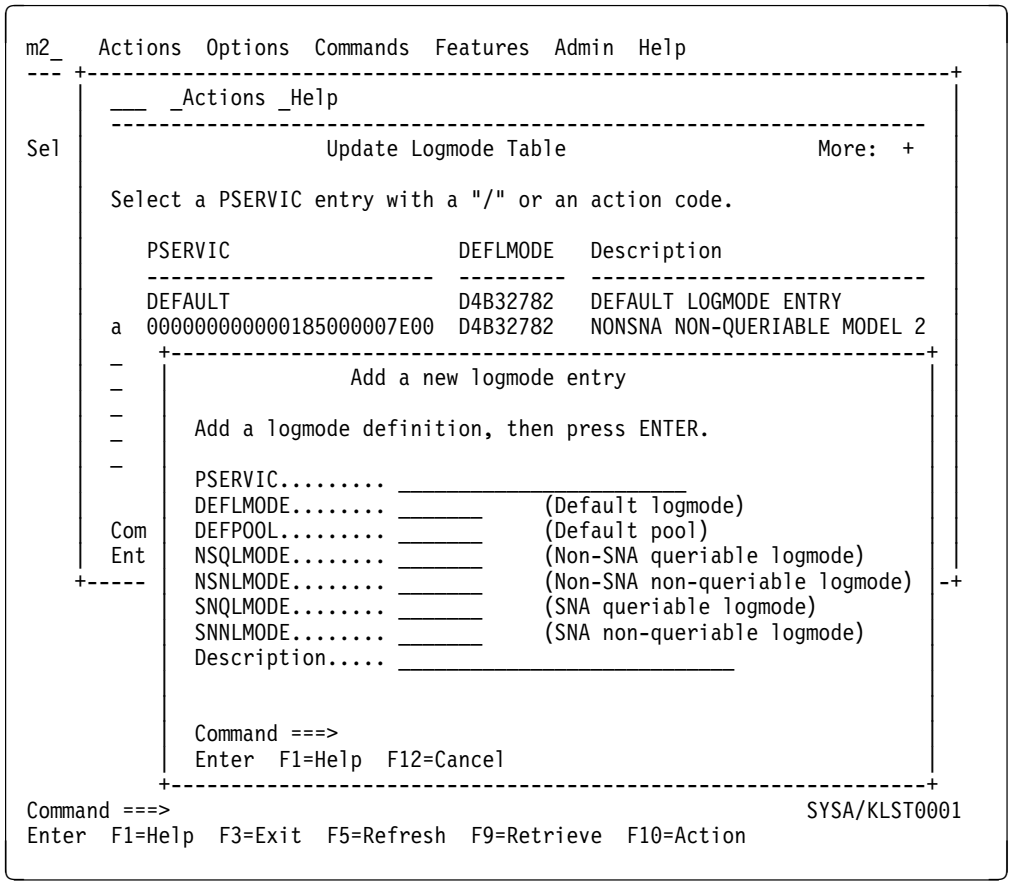

Figure 31. Add a New Logmode Entry Window

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 *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 32) appears, showing the values of the entry you copied.

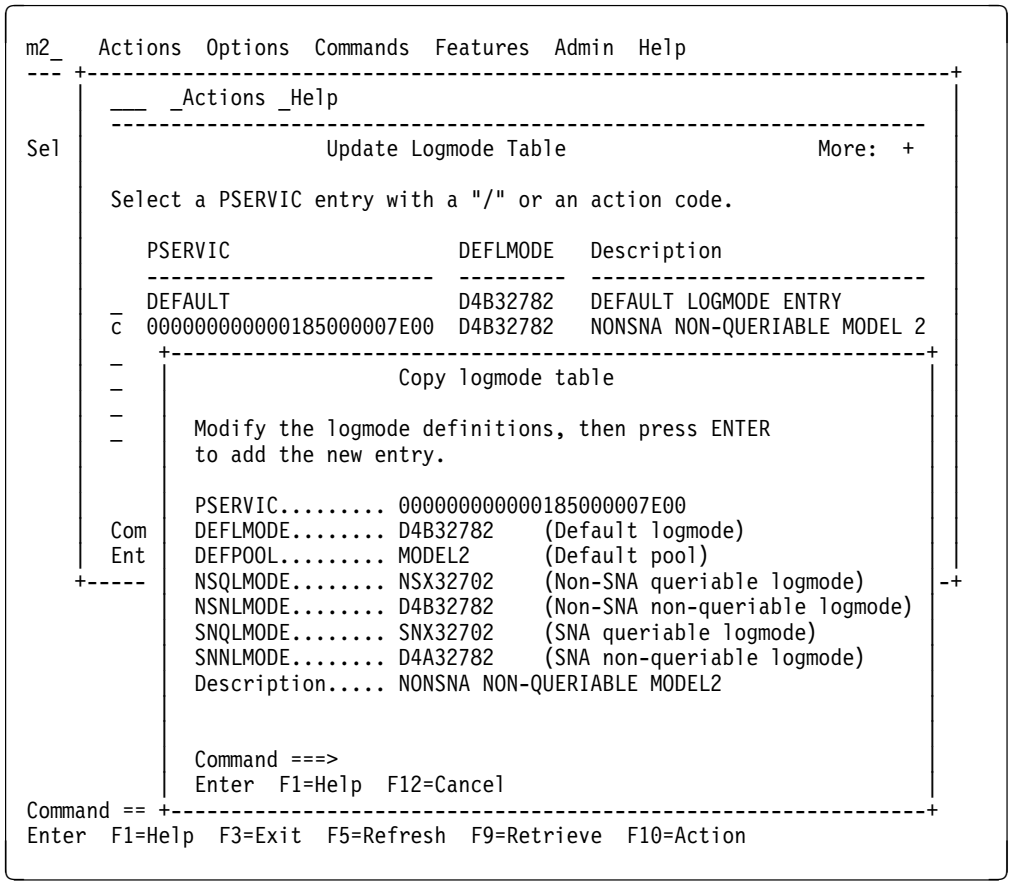

Figure 32. Copy Logmode Table Window

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 *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 33) will appear.

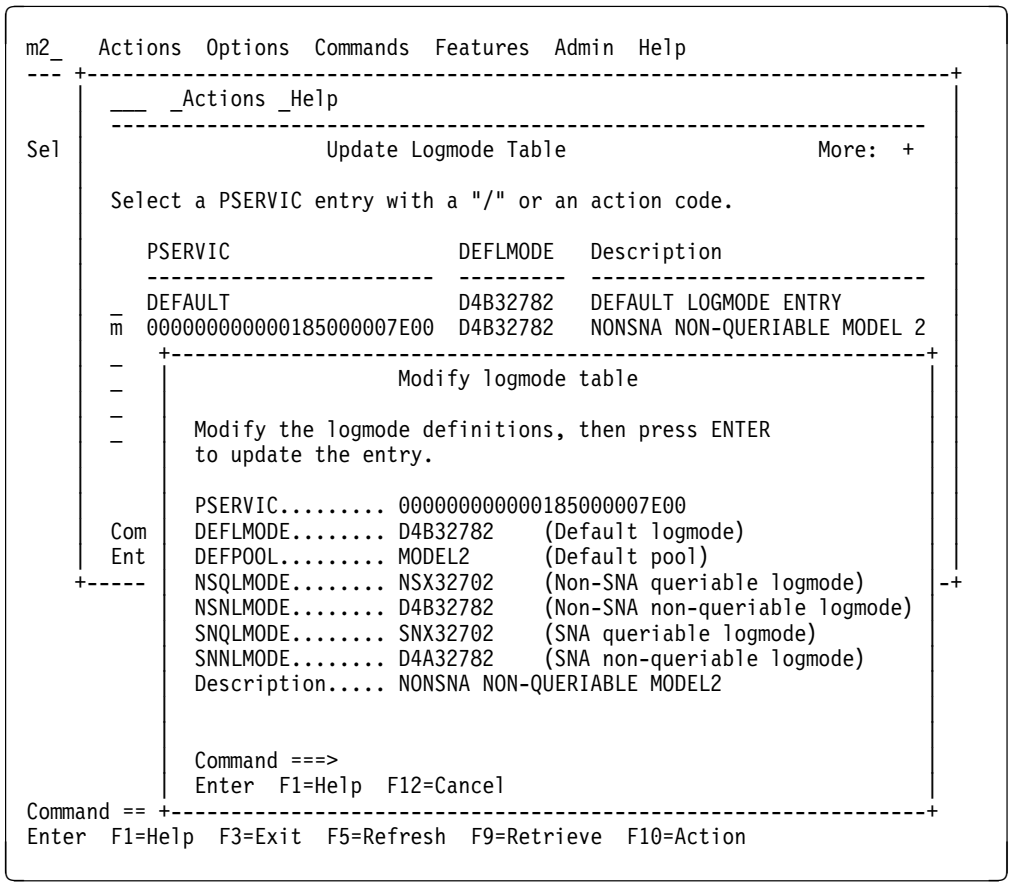

Figure 33. Modify Logmode Table Window

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 34) will show the current specifications for the entry you selected. This window is strictly informational; you cannot use it to update the logmode table.

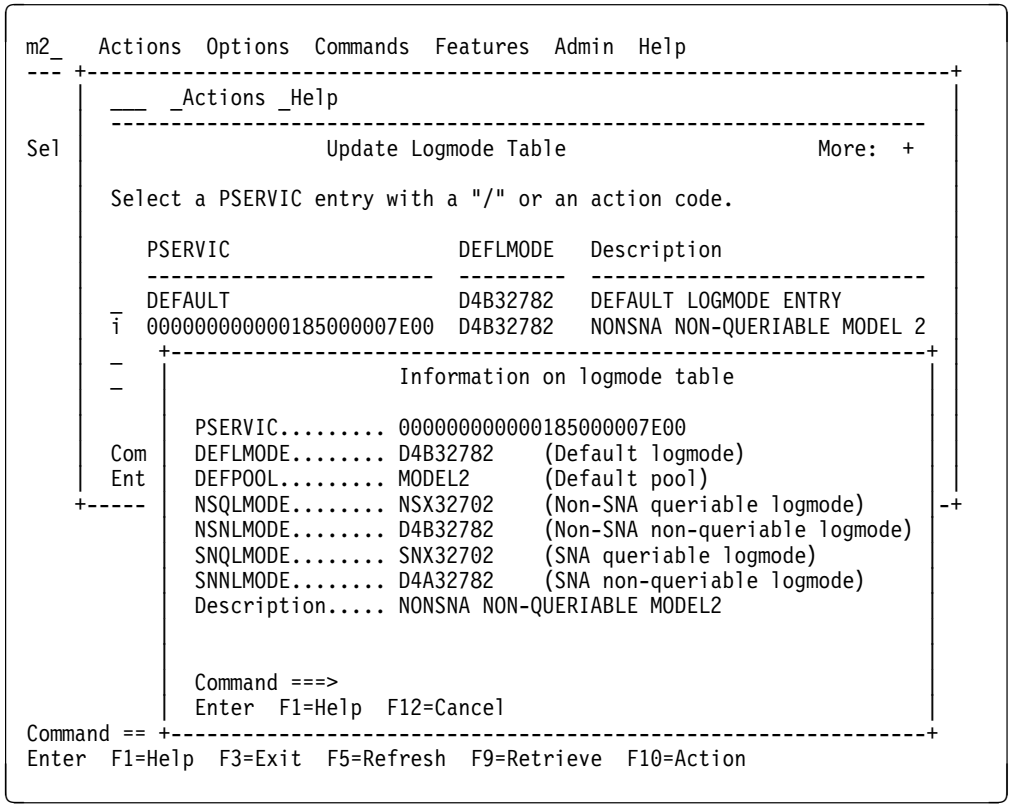

Figure 34. Information on Logmode Table Window

Chapter 7. Starting and Stopping

You have now configured your CL product. Here are instructions for starting and stopping the product.

Starting Your CL Product

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 TLSSAMP for information on how to create the member that runs the job.

Stopping Your CL Product

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 kls
```

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 *Customization Guide* for more information on changing the CONFIRM parameter.

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

What Happens During Initialization

The members of 3 DDNAMEs 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.

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 35 on page 131. 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.

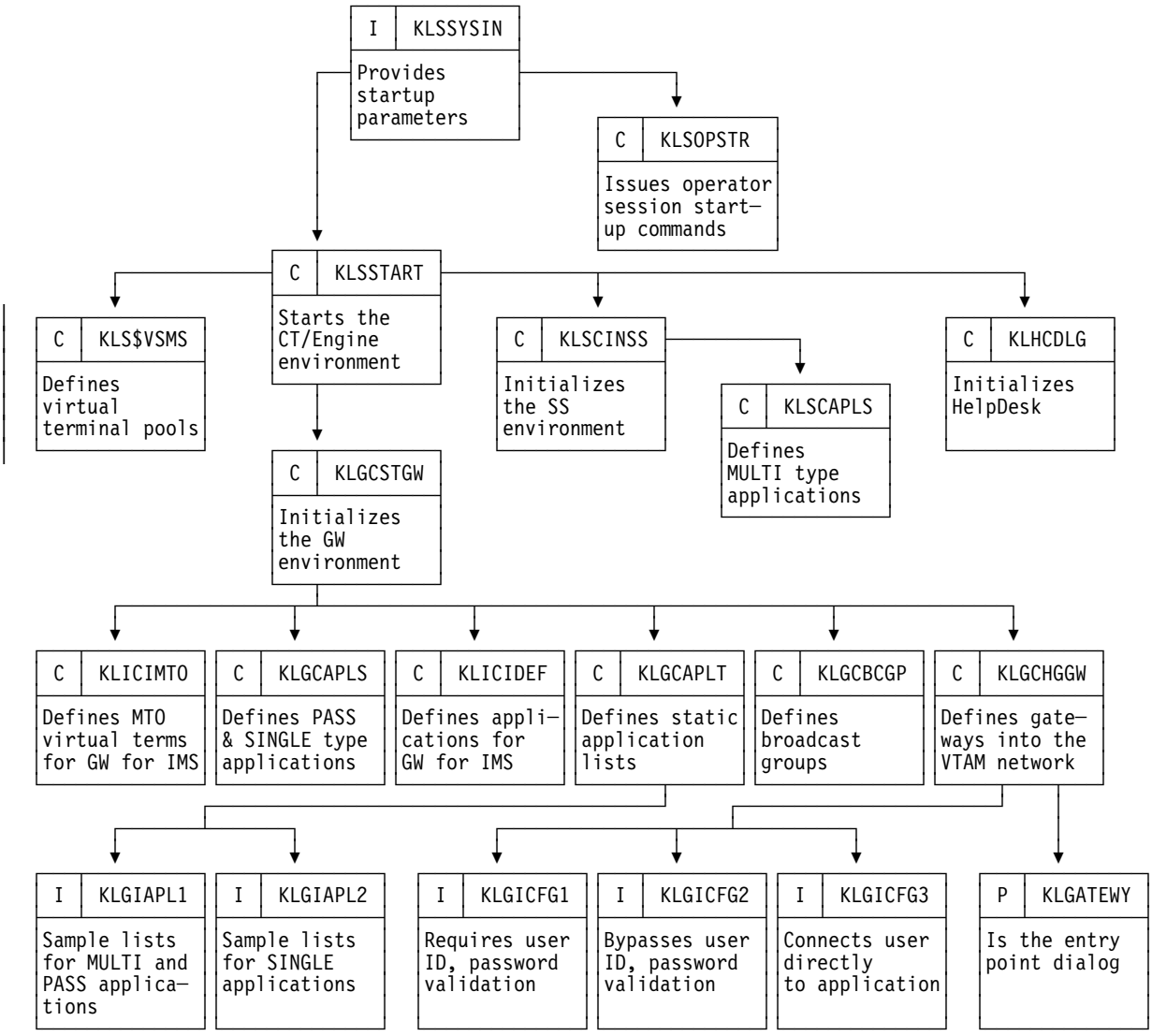

Figure 35. Default Startup of CL/GATEWAY with CL/SUPERSESSION

KLSSYSIN

Member in *&thilev*.TLSPARM. Contains the startup parameters for the CT/Engine address space.

```
LSRPOOL(32768,8)
LSRPOOL(4096,32)
LSRPOOL(2048,8)
INITIAL(KLSSTART)
OPSTART(KLSOPSTR)
.
.
.
```

KLSOPSTR

Member in *&thilev*.TLSCMDS. Provides initial commands for all CT/Engine operators. As provided with the product, folds CT/Engine 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*.TLSCMDS. Starts the CT/Engine operator facility and the CUA/SAA interface (NODE) and then invokes command lists KLS$VSMS, KLSCINSS, KLSCSTGW, and KLHCDLG.

```
TRACE +DISPATCH        * ACTIVATE DISPATCHER TRACE
EVERY 2:00             * PREVENT S522 ABENDS
EVERY 30:00 STORAGE D  * LOG STORAGE USED EVERY 30 MINUTES
EVERY 30:00 FLUSH      * FLUSH VSAM LSR BUFFERS
NODE &LSVT0            * START CT/Engine OPERATOR FACILITY
DIALOG &LSVT5 KLVLOGON * CT/Engine OPERATOR FACILITY
KLS$VSMS               * DEFINE VIRTUAL TERMINAL POOLS
KLSCINSS               * START CL/SUPERSESSION
KLGCSTGW               * START CL/GATEWAY
KLHCDLG                * START HELPDESK FACILITY
```

KLS$VSMS

Member in *&thilev*.TLSCMDS. Defines pools of VTAM logical units (virtual terminals) used to establish sessions for SINGLE or MULTI.

```
VSM DEF VIRTPARS &LSVT00        LOGMODE(&DEFLMODE) DEFER PARALLEL
VSM DEF VIRTDED  &LSVT01 TH(10) LOGMODE(&DEFLMODE) DEFER DEDICATE
VSM DEF VIRTPASS &LSVT11 TH(70) LOGMODE(&DEFLMODE) DEFER PASS
VSM DEF VIRT3270 &LSVT11 TH(70) LOGMODE(&DEFLMODE) DEFER
VSM DEF MODEL2   &LSVT11 TH(20) LOGMODE(&DEFLMODE) DEFER
VSM DEF MODEL3   &LSVT21 TH(30) LOGMODE(&DEFLMODE) DEFER
VSM DEF MODEL4   &LSVT31 TH(40) LOGMODE(&DEFLMODE) DEFER
VSM DEF MODEL5   &LSVT41 TH(50) LOGMODE(&DEFLMODE) DEFER
VSM DEF MODEL9   &LSVT51 TH(60) LOGMODE(&DEFLMODE) DEFER
VSM DEF IINPOOL  &LSVT01 TH(10) LOGMODE(&DEFLMODE) DEFER DEDICATE
VSM DEF TSOESA   &LSVT11 TH(20) LOGMODE(&DEFLMODE) DEFER
VSM DEF TSOPOOL  &LSVT11 TH(20) LOGMODE(&DEFLMODE) DEFER PASS PARALLEL
VSM DEF HCFPOOL  &LSVT11 TH(70) LOGMODE(&NSQLMODE) DEFER
```

KLSCINSS

Member in *&thilev*.TLSCMDS. Issues the supplied CLIST that defines MULTI type applications.

```
KLGCAPLS
```

KLGCAPLS

Member in *&thilev*.TLSCMDS. Defines MULTI type applications accessible through CL/SUPERSESSION including the TSOSS APPLDEF, which is shown below.

```
APPLDEF TSOSS                              -
        DEST=TSO1                          -
        DESC='TSO (SINGLE/MULTSESS)'       -
        POOL=VIRTPASS                      -
        INITDLG=KLS0NTS0                   -
        MULTSESS=YES                       -
        USERDATA='LOGON &VIGUSER'          -
        GROUP=200                          -
        .
        .
        .
```

KLGCSTGW

Member in *&thilev*.TLSCMDS. Initializes the CL/GATEWAY environment by executing a series of CT/Engine command lists.

```
KLICIMTO     * DEFINE MTO VIRTUAL TERMINALS
KLGCAPLS     * DEFINE SINGLE AND PASS APPLICATIONS
KLICIDEF     * DEFINE IMS COMMANDS
KLGCAPLT     * DEFINE APPLIST COMMANDS
KLGCBCGP     * DEFINE BCGROUP COMMANDS
KLGCHGGW     * DEFINE CL/GATEWAY COMMANDS
```

KLICIMTO

Member in *&thilev*.TLSCMDS. Defines virtual terminal pools for virtual MTOs for IMS operator sessions used by CL/GATEWAY for IMS.

```
VSM DEF IMSOP    &LSMTO01 TH(2)  LOGMODE(SCS)
VSM DEF IMSOP1   &LSMTO03 TH(4)  LOGMODE(SCS)
```

KLSCAPLS

Member in *&thilev*.TLSCMDS. Defines PASS and SINGLE type applications accessible through CL/GATEWAY including the TSO APPLDEF, which is shown below.

```
APPLDEF TSO                                -
        DEST(TSO1)                         -
        SIMLOGON('&VIGUSER &VIGPSWD')      -
        ORDER(5)                           -
        DESC('TSO (CLSDST PASS)')          -
        USERDATA('LOGON &VIGUSER')         -
        .
        .
        .
```

KLICIDEF

Member in *&thilev*.TLSCMDS. Provides IMS/DC definitions used by CL/GATEWAY 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*.TLSCMDS. 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*.TLSCMDS. Defines the messages for each broadcast group.

```
BCGROUP GROUP1 1 '                                                '
BCGROUP GROUP1 2 '              Copyright 1987-1993               '
BCGROUP GROUP1 3 '             an unpublished work by             '
BCGROUP GROUP1 4 '    Candle Corporation.  All rights reserved.   '
BCGROUP GROUP1 5 '         Use permissible by License only.       '
BCGROUP GROUP1 6 '                                                '
*
BCGROUP GROUP2 1 '                                                '
BCGROUP GROUP2 2 '              Copyright 1987-1993               '
BCGROUP GROUP2 3 '             an unpublished work by             '
BCGROUP GROUP2 4 '    Candle Corporation.  All rights reserved.   '
BCGROUP GROUP2 5 '         Use permissible by License only.       '
BCGROUP GROUP2 6 '                                                '
```

KLGCHGGW

Member in *&thilev*.TLSCMDS. Defines gateways into the VTAM network. Opens each gateway's ACB and establishes the gateway's environment.

When a user logs onto 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 onto a gateway with a specific broadcast group. The ATTENTION parameter activates window control.

```
HOSTGATE &LSVT1            -
         CONFIG=KLGICFG1   -
         BCGROUP=GROUP1    -
         DIALOG=KLGATEWY   -
         ATTENTION=KLGWATTN
HOSTGATE &LSVT2            -
         CONFIG=KLGICFG2   -
         BCGROUP=GROUP2    -
         DIALOG=KLGATEWY   -
         ATTENTION=KLGWATTN
HOSTGATE &LSVT3            -
         CONFIG=KLGICFG3   -
         BCGROUP=GROUP3    -
         DIALOG=KLGATEWY
```

KLHCDLG

Member in *&thilev*.TLSCMDS. Defines HelpDesk initialization command. See *Using the HelpDesk Facility*, LS99-4698.

KLGIAPL1

Member in *&thilev*.TLSPARM. 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*.TLSCMDS library members KLGCAPLS and KLGCAPLS.

```
GROUP=200
* SESSIONS DEFINED IN RLSCMDS(KLSCAPLO)
*
VPSS
VPSSCUA
* SESSIONS DEFINED IN RLSCMDS(KLSCAPLS)
*
TSOSS
IMSSS
IMSDSS
IMSASS
CICSSS
*
GROUP=0
* SESSIONS DEFINED IN RLSCMDS(KLGCAPLO)
*
VTPOPER
CUAOPER
* SESSIONS DEFINED IN RLSCMDS(KLGCAPLS)
*
TSO
IMS
IMSDEQ
* IMSASSGN
CICS
```

KLGIAPL2

Member in *&thilev*.TLSPARM. 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*.TLSCMDS 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*.TLSPARM. Defines a CL/GATEWAY configuration by specifying each data element (USERID, PASSWORD, APPLIST, etc.) 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                                                    -
         REQUIRED                                       -
         USERDATA(APPLID)                               -
         PANEL(KLSVSEL)                                 -
         PROMPT(' ')                                    -
         MENU
LTERM                                                   -
         USERDATA(LTERM)                                -
         PANEL(KLIDIMS)                                 -
         PROMPT('ENTER LTERM')                          -
         DEFAULT(&VIGUSER)
LOGMODE                                                 -
         OPTIONAL
POOL                                                    -
         DEFAULT(&DEFPOOL)


PRTLTERM                                                -
         PANEL(KLIDIMS)                                 -
         PROMPT('ENTER PRINTER LTERM')
PRTNODE                                                 -
         NAM
         .
         .
         .
```

KLGICFG2

Member in *&thilev*.TLSPARM. Defines a CL/GATEWAY configuration. 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)
POOL                                                    -
         DEFAULT(&DEFPOOL)
USERDATA
LOGMODE                                                 -
         OPTIONAL
PRTLTERM                                                -
         PANEL(KLIDIMS)                                 -
         PROMPT('ENTER PRINTER LTERM')
PRTNODE
PRTPOOL
.
.
.
```

KLGICFG3

Member in *&thilev*.TLSPARM. Defines a CL/GATEWAY configuration. 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
POOL                                                    -
         DEFAULT(&DEFPOOL)
         .
         .
         .
```

KLGICFG3 connects the user directly to the CT/Engine 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.

No triggers or CT/Engine functions, such as ATTN, are available through KLGICFG3.

KLGLGON

Member in *&thilev*.TLSPNLS. This is the entry point dialog for the CL/SUPERSESSION and CL/GATEWAY interface.

Appendix A. Migration from Earlier Versions

This appendix tells you how to migrate from previous releases of CL/SUPERSESSION (Versions 115, 145, or 146) to the current release, Version 147.

Migration from Version 115 to Version 147

Introduction

This section describes procedures for customizing product definitions if you are upgrading from Version 115 of CL/SUPERSESSION.

You must perform the steps in this section in sequence.

Migration of user-customized V115 members may be a multistep process. The number of steps depends upon the type of library.

- USER.VTPCLIB
  - convert to V147 naming conventions
- USER.VTPILIB
  - convert to V146 names and parameter format
  - convert to V147 naming conventions
- USER.VTPPLIB
  - convert to V146 syntax
  - convert to V146 names and parameter format
  - convert to V147 naming conventions

Important

Customization for V115 may not be applicable in Version 147. For example, VTPINSTG for V115 should not be used as KLVINSTG in Version 147. Please refer to the *Customization Guide* for current information.

You should review the entire procedure before you begin migration. Use the √ column to check off steps as you complete them.

Table 11. Migration Checklist for Version 115	
√	**Migration Step**
	Review the entire migration procedure.
	Identify your installation-specific migration parameters.
	Create and submit jobs using CICAT.
	Submit KLSJOBB1 (copy V115 NAM to V147, create temporary TDB).
	Submit KLSJOBB2 (USER.VTPPLIB syntax conversion).
	Submit KLSJOBB3 (migrate USER.VTPILIB and USER.VTPPLIB to V146).
	Submit KLSJOBB4 (rename USER.VTPCLIB, USER.VTPILIB and USER.VTPPLIB to V147).
	Reassemble user exits (if any).
	Set VSPAUTHS and VSPAUTHT.
	Rename group profile selection dialog.
	Start CL/SUPERSESSION.
	Convert profile table format.
	Stop CL/SUPERSESSION.
	Complete migration procedure.
	Submit KLSJOBB5 (copy temporary TABLEDB to RLSTDB).
	Submit KLSJOBB6 (delete temporary datasets).
	Reinstate customization from previous version.
	Run the KLSNMPRG dialog (optional).

Identify Your Installation-specific Migration Parameters

Refer to Table 5 on page 25 to identify your installation-specific values. You will use these values to complete the next task.

Important

You must use the CICAT to perform the following migration procedures. See *Installing Candle Products on MVS* for instructions on using the CICAT.

1. Select option 3 of the CICAT (Assist Product Configuration) from the Installation/Configuration Primary Menu, the product configuration menu, similar to Figure 1 on page 27, is displayed.
2. Select option 5 (Migration Assistance From V115) from the product configuration menu, the Migration from V115 Menu, similar to Figure 36, is displayed.
3. Select option **1** (Define CL/SUPERSESSION migration parameters).
4. Use the installation-specific values you supplied in Table 5 on page 25 to respond to the information requested.

```
     ---------------- CL/SUPERSESSION MIGRATION FROM V115 MENU ----------------
OPTION  ===>

 Enter the number of the option desired.                      Last Selected
 Perform the steps in order.                                  Date      Time

    1   Define CL/SUPERSESSION migration parameters           93/03/31  15:50

    2   Copy NAM, create temporary TABLEDB

    3   SSPL conversion

    4   SSPL and Initialization member migration

    5   SSPL, Initialization and Command member rename

    6   Copy temporary TABLEDB to RLSTDB

    7   Delete temporary datasets

 Enter HELP for more information.
 Enter END to return to the Customization menu.
```

Figure 36. Migration from V115 Menu

Submit job KLSJOBB1 (copy NAM, create temporary TABLEDB)

Select option **2** on the CL/SUPERSESSION Migration from V115 Menu. This job

- deletes the NAM dataset used for installation verification, creates a new NAM dataset, and copies the V115 NAM dataset to the 147 NAM dataset
- deletes the table database used for installation verification and creates the table database that will be used for 147
- creates a temporary table database
- updates *&rhilev*.RLSPARM to identify the temporary table database to CT/Engine
- updates *&rhilev*.RLSCMDS to initialize the new NAM dataset

- adds KLGCTBCV to *&rhilev*.RLSCMDS

To facilitate rerunning of the JCL, this job executes IDCAMS to delete *&rvhilev*.CONVERT.TDB. If you are running this job for the first time, you will get a return code of 8 for the DELETE. This is expected, and does not indicate an error.

Submit job KLSJOBB2 (SSPL syntax conversion)

Select option **3**. This job converts V115 USER.VTPPLIB members to V146 syntax and places the output into a temporary VTPPLIB library.

"Run the SSPL Dialog Conversion" on page 159 provides an overview of this conversion utility. The output from this job should be carefully checked before proceeding to the next step.

Submit job KLSJOBB3 (migrate VTPILIB and VTPPLIB to V146)

Select option **4**. This job must be run after job KLSJOBB2. The job

- migrates members from V115 USER.VTPILIB to V146 format and places the output into a temporary VTPILIB library
- migrates members from the temporary VTPPLIB (created in KLSJOBB2) to V146 format and places the output into another temporary VTPPLIB library

"Run the Migration Assistance Utility" on page 159 provides an overview of this migration utility. The output from this job should be carefully checked before proceeding to the next step.

Submit job KLSJOBB4 (rename VTPCLIB, VTPILIB and VTPPLIB)

Select option **5**. This job must be run after job KLSJOBB3. The job

- renames members from V115 USER.VTPCLIB to V147 naming conventions and places the output into RLSCMDS runtime dataset
- renames members from the temporary VTPILIB (created in KLSJOBB3) to V147 naming conventions and places the output into RLSPARM runtime dataset
- renames members from the temporary VTPPLIB (created in KLSJOBB3) to V147 naming conventions and places the output into RLSPNLS runtime dataset

"Run the Rename Utility" on page 162 provides an overview of this rename utility. The output from this job should be carefully checked before proceeding to the next step.

Reassemble User Exits

Refer to “Reassemble User Exits” on page 158.

Set VSPAUTHS and VSPAUTHT

In order to assign **`Add session`** and **`Add trigger`** authority to all users who signed onto Version 115, you may have set VSPAUTHS and VSPAUTHT to **`Y`** in the Version 115 dialogs VGWLUINI or VSSLUINI. If so, perform the following:

1. Copy *&thilev*.TLSCMDS(KLSINNAM) into *&rhilev*.RLSCMDS.
2. Edit the copied member to change the VSPAUTHS and VSPAUTHT values from N to Y.
3. Save the member.

Rename Group Profile Selection Dialog

Refer to “Rename Group Profile Selection Dialogs” on page 158.

Start CL/SUPERSESSION

Refer to “Start CL/SUPERSESSION” on page 164.

Convert Profile Table Format

Refer to “Convert Profile Table format” on page 165.

Stop CL/SUPERSESSION

Refer to “Stop CL/SUPERSESSION” on page 169.

Complete Migration Procedure

Submit job KLSJOBB5 (copy temporary TABLEDB to RLSTDB)

Select option **`6`** on the CL/SUPERSESSION Migration from V115 Menu. This job

- copies the temporary table database used for the profile conversion stage of the migration into RLSTDB
- updates *&rhilev*.RLSPARM(KLVINTB) to point to *&rvhilev*.RLSTDB

Submit job KLSJOBB6 (delete temporary datasets)

Select option **7**. This job deletes the following temporary datasets:

- table database created in KLSJOBB1
- VTPPLIB created in KLSJOBB2
- VTPILIB created in KLSJOBB3
- VTPPLIB created in KLSJOBB3

Reinstate Customization from Previous Version

Refer to "Reinstate Customization from Previous Version" on page 169.

Run the KLSNMPRG Dialog (optional)

Refer to "Run the KLSNMPRG Dialog (optional)" on page 171.

Migration from Version 145 to Version 147

Introduction

This section describes procedures for customizing product definitions if you are upgrading from Version 145 of CL/SUPERSESSION.

You must perform the steps in this section in sequence.

Migration of user-customized V145 members may be a multistep process. The number of steps depends upon the type of library.

- USER.VTPCLIB
  - convert to V147 naming conventions
- USER.VTPILIB
  - convert to V146 names and parameter format
  - convert to V147 naming conventions
- USER.VTPPLIB
  - convert to V146 syntax
  - convert to V146 names and parameter format
  - convert to V147 naming conventions

Important

Customization for V145 may not be applicable in Version 147. For example, VTPINSTG for V145 should not be used as KLVINSTG in Version 147. Please refer to the *Customization Guide* for current information.

You should review the entire procedure before you begin migration. Use the √ column to check off steps as you complete them.

Table 12 (Page 1 of 2). Migration Checklist for Version 145

√	Migration Step
	Review the entire migration procedure.
	Identify your installation-specific migration parameters.
	Create and submit jobs using CICAT.
	Submit KLSJOBC1 (copy NAM and create table database).
	Submit KLSJOBC2 (SSPL syntax conversion).

Table 12 (Page 2 of 2). Migration Checklist for Version 145	
√	**Migration Step**
	Submit KLSJOBC3 (migrate USER.VTPILIB and USER.VTPPLIB to V146).
	Submit KLSJOBC4 (rename USER.VTPCLIB, USER.VTPILIB and USER.VTPPLIB to V147).
	Reassemble user exits (if any).
	Rename group profile selection dialog.
	Start CL/SUPERSESSION.
	Convert the table database.
	Convert profile table format.
	Stop CL/SUPERSESSION.
	Complete migration procedure.
	Submit KLSJOBC5 (copy temporary TABLEDB to RLSTDB).
	Submit KLSJOBC6 (delete temporary datasets).
	Reinstate customization from previous version.
	Run the KLSNMPRG dialog (optional).

Identify Your Installation-specific Migration Parameters

Refer to Table 5 on page 25 to identify your installation-specific values. You will use these values to complete the next task.

Important

You must use the CICAT to perform the following migration procedures. See *Installing Candle Products on MVS* for instructions on using the CICAT.

Create and Submit Jobs Using CICAT

1. Select option 3 of the CICAT (Assist Product Configuration) from the Installation/Configuration Primary Menu, the product configuration menu, similar to Figure 1 on page 27, is displayed.
2. Select option 6 (Migration Assistance From V145) from the product configuration menu, the Migration from V145 Menu, similar to Figure 37 on page 149, is displayed.
3. Select option **1** (Define CL/SUPERSESSION migration parameters).

4. Use the installation-specific values you supplied in Table 5 on page 25 to respond to the information requested.

```
     ---------------- CL/SUPERSESSION MIGRATION FROM V145 MENU ----------------
OPTION  ===>

 Enter the number of the option desired.                     Last Selected
 Perform the steps in order.                                 Date      Time

    1   Define CL/SUPERSESSION migration parameters          93/03/31  15:55

    2   Copy NAM and TABLEDB

    3   SSPL conversion

    4   SSPL and Initialization member migration

    5   SSPL, Initialization and Command member rename

    6   Copy temporary TABLEDB to RLSTDB

    7   Delete temporary datasets

 Enter HELP for more information.
 Enter END to return to the Customization menu.
```

Figure 37. Migration from V145 Menu

Submit job KLSJOBC1 (copy NAM and create TABLEDB)

Select option **2** on the Product Migration from V145 Menu. This job

- deletes the NAM dataset used for installation verification, creates a new NAM dataset, and copies the V145 NAM dataset to the 147 NAM dataset
- deletes the table database used for installation verification and creates the table database that will be used for 147
- updates *&rhilev*.RLSPARM to identify the temporary table database to CT/Engine
- updates *&rhilev*.RLSCMDS to initialize the new NAM dataset and updates *&rhilev*.RLSCMDS(KLSSTART) for table database conversion
- adds member *&rhilev*.RLSCMDS(KLGCTBCV)

To facilitate rerunning of the JCL, this job executes IDCAMS to delete dataset *&rvhilev*.CONVERT.TDB. If you are running this job for the first time, you will get return code 8 for the DELETE. This is expected, and does not indicate an error.

Note: As a general guideline, allocate the V147 table database with approximately five times as much space as the V145 table database.

Submit job KLSJOBC2 (SSPL syntax conversion)

Select option **3**. This job converts V145 USER.VTPPLIB members to V146 syntax and places the output into a temporary VTPPLIB library.

"Run the SSPL Dialog Conversion" on page 159 provides an overview of this conversion utility. The output from this job should be carefully checked before proceeding to the next step.

Submit job KLSJOBC3 (migrate VTPILIB and VTPPLIB to V146)

Select option **4**. This job must be run after job KLSJOBC2. The job

- migrates members from V145 USER.VTPILIB to V146 format and places the output into a temporary VTPILIB library
- migrates members from the temporary USER.VTPPLIB (created in KLSJOBC2) to V146 format and places the output into another temporary VTPPLIB library

"Run the Migration Assistance Utility" on page 159 provides an overview of this migration utility. The output from this job should be carefully checked before proceeding to the next step.

Submit job KLSJOBC4 (rename VTPCLIB, VTPILIB, and VTPPLIB to 147)

Select option **5**. This job must be run after job KLSJOBC3. The job

- renames members from V145 USER.VTPCLIB to V147 naming conventions and places the output into RLSCMDS runtime dataset
- renames members from the temporary USER.VTPILIB (created in KLSJOBC3) to V147 naming conventions and places the output into RLSPARM runtime dataset
- renames members from the temporary USER.VTPPLIB (created in KLSJOBC3) to V147 naming conventions and places the output into RLSPNLS runtime dataset

"Run the Rename Utility" on page 162 provides an overview of this rename utility. The output from this job should be carefully checked before proceeding to the next step.

Note: The dialog function TBPUT has been changed since V146. It now requires that the Current Row Pointer (CPR) point to the row that is being updated. If it does not, TBPUT will terminate with return code 8. If you need to update a row that is not pointed to by the CRP, you may use TBMOD.

Reassemble User Exits

Refer to “Reassemble User Exits” on page 158.

Rename Group Profile Selection Dialog

Refer to “Rename Group Profile Selection Dialogs” on page 158.

Start CL/SUPERSESSION

Refer to “Start CL/SUPERSESSION” on page 164.

Convert the Table Database

Important

Before running the conversion for the table database, ensure that your Version 145 system is down.

Enhanced table services require a different VSAM key structure and record structure, as well as other modifications in the table database. If you have a Version 145 installation, you must convert the Version 145 table database for use in the Version 147 system.

Member KLSSTART, as installed in *&rhilev*.RLSCMDS by KLSJOBC1, contains the following statement:

```
TDB CONVERT &lstdb
```

where *&lstdb* is the value supplied for Table 5 on page 25. The TDB CONVERT command can have an OPTIONAL REPLACE parameter. The syntax using REPLACE follows:

```
TDB CONVERT &lstdb REPLACE
```

It is possible to rerun the table database and profile conversion utilities more than once, in order to convert entries made after the initial conversion process was completed.

TDB CONVERT (without the REPLACE option) converts only those table entries made after the last conversion process. If you use the REPLACE parameter, *all* table entries will be converted (whether they were previously converted or not), and any customer changes made to the Version 147 tables will be lost.

When the CT/Engine address space is next started, the TDB CONVERT subcommand converts the old Version 145 table database as input to the new Version 147 table database in Version 147 format. The **KLVVS002 CLUSTER...** message will indicate that the table database conversion is complete.

The TDB conversion process executes when you start CL/SUPERSESSION. Be sure to check the TLVLOG for successful conversion messages. If you receive the message

```
KLVVS021 VSAM LOGIC ERROR...
```

with a feedback code of 1C (RPLFDBWD=xx08xx1C, where *x* is any hexadecimal character), the Version 147 table database is too small. You must enlarge the table database and then restart this step.

Message KLVTB021 is written to TLVLOG when the table is successfully converted. Other messages may be written if errors occur. If error messages are recorded in TLVLOG, refer to the *Messages Manual* for explanations and corrective actions.

It may be necessary to flush the TLVLOG buffer in order to see this message. This can be achieved as follows:

```
F kls,ECHO
```

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

Important

Do not continue to the next step until message KLVVS002 has been received.

You must run the profile conversion utility after each TDB CONVERT command is processed.

Convert the Profile Table Format

Refer to “Convert Profile Table format” on page 165.

Stop CL/SUPERSESSION

Refer to “Stop CL/SUPERSESSION” on page 169.

Complete Migration Procedure

Submit job KLSJOBC5 (copy temporary TABLEDB to RLSTDB)

Select option **6** on the Product Migration from V145 Menu. This job

- copies the temporary table database used for the profile conversion stage of the migration into RLSTDB
- updates *&rhilev*.RLSPARM member KLVINTB to point to RLSTDB
- updates *&rhilev*.RLSCMDS member KLSSYSIN for normal product initialization

Submit job KLSJOBC6 (delete temporary datasets)

Select option **7**. This job deletes the following temporary datasets:

- table database created in KLSJOBC1
- VTPPLIB created in KLSJOBC2
- VTPILIB created in KLSJOBC3
- VTPPLIB created in KLSJOBC3

Reinstate Customization from Previous Version

Refer to “Reinstate Customization from Previous Version” on page 169.

Run the KLSNMPRG Dialog (optional)

Refer to “Run the KLSNMPRG Dialog (optional)” on page 171.

Migration from Version 146 to Version 147

Introduction

This section describes procedures for customizing product definitions if you are upgrading from Version 146 of CL/SUPERSESSION.

You must perform the steps in this section in sequence.

You should review the entire procedure before you begin migration. Use the √ column to check off steps as you complete them.

Table 13. Migration Checklist for Version 146

√	Migration Step
	Review the entire migration procedure.
	Identify your installation-specific migration parameters.
	Create and submitjobs using CICAT.
	Submit KLSJOBD1 (copy NAM and create table database).
	Submit KLSJOBD2 (rename USER.VTPCLIB, USER.VTPILIB and USER.VTPPLIB to V147).
	Reassemble user exits (if any).
	Rename group profile selection dialog.
	Start CL/SUPERSESSION.
	Convert profile table format.
	Stop CL/SUPERSESSION.
	Complete migration procedure.
	Submit KLSJOBD3 (copy temporary TABLEDB to RLSTDB).
	Submit KLSJOBD4 (delete temporary datasets).
	Reinstate customization from previous version.
	Run the KLSNMPRG dialog (optional).

Identify Your Installation Migration Parameters

Refer to Table 5 on page 25 to identify your installation-specific values. You will use these values to complete the next task.

Important

You must use the CICAT to perform the following migration procedures. See *Installing Candle Products on MVS* for instructions on using the CICAT.

Create and Submit Jobs Using CICAT

1. Select option 3 of the CICAT (Assist Product Configuration) from the Installation/Configuration Primary Menu, the product configuration menu, similar to Figure 1 on page 27, is displayed.
2. Select option 7 (Migration Assistance From V146) from the product configuration menu, the Migration from V146 Menu, similar to Figure 38, is displayed.
3. Select option **1** (Define CL/SUPERSESSION migration parameters).
4. Use the installation-specific values you supplied in Table 5 on page 25 to respond to the information requested.

```
     ---------------- CL/SUPERSESSION MIGRATION FROM V146 MENU ----------------
OPTION  ===>

 Enter the number of the option desired.                    Last Selected
 Perform the steps in order.                                Date      Time

    1   Define CL/SUPERSESSION migration parameters         93/03/31  15:58

    2   Copy NAM and TABLEDB

    3   SSPL, Initialization and Command member rename

    4   Copy temporary TABLEDB to RLSTDB

    5   Delete temporary datasets

 Enter HELP for more information.
 Enter END to return to the Customization menu.
```

Figure 38. Migration from V146 Menu

Submit job KLSJOBD1 (copy NAM and create TABLEDB)

Select option **2** on the Product Migration from V146 Menu. This job

- deletes the NAM dataset used for installation verification, creates a new NAM dataset, and copies the V146 NAM dataset to the 147 NAM dataset
- deletes the table database used for installation verification and creates the table database that will be used for 147
- creates a temporary database

- updates *&rhilev*.RLSPARM to identify the temporary table database to CT/Engine
- updates *&rhilev*.RLSCMDS to initialize the new NAM dataset, and
- adds KLGCTBCV to *&rhilev*.RLSCMDS

To facilitate rerunning the JCL, this job executes IDCAMS to DELETE the *&rvhilev*.CONVERT.TDB dataset. If you are running this job for the first time, you will get a return code of 8 for the DELETE. This is expected, and does not indicate an error.

Submit job KLSJOBD2 (rename VTPCLIB, VTPILIB, and VTPPLIB to 147)

Select option **3**. This job

- renames members from V146 USER.VTPCLIB to V147 naming conventions and places the output into RLSCMDS runtime dataset
- renames members from V146 USER.VTPILIB to V147 naming conventions and places the output into RLSPARM runtime dataset
- renames members from V146 USER.VTPPLIB to V147 naming conventions and places the output into RLSPNLS runtime dataset

"Run the Rename Utility" on page 162 provides an overview of this rename utility. The output from this job should be carefully checked before proceeding to the next step.

Reassemble User Exits

Refer to "Reassemble User Exits" on page 158.

Rename Group Profile Selection Dialog

Refer to "Rename Group Profile Selection Dialogs" on page 158.

Start CL/SUPERSESSION

Refer to "Start CL/SUPERSESSION" on page 164.

Convert Profile Table Format

Refer to "Convert Profile Table format" on page 165.

Stop CL/SUPERSESSION

Refer to “Stop CL/SUPERSESSION” on page 169.

Complete Migration Procedure

Submit Job KLSJOBD3 (Copy Temporary TABLEDB to RLSTDB)

Select option **4** on the Product Migration from V146 Menu. This job

- copies the temporary table database used for the profile conversion stage of the migration into RLSTDB
- updates *&rhilev*.RLSPARM(KLVINTB) to point to RLSTDB
- updates *&rhilev*.RLSCMDS member KLSSTART

Submit job KLSJOBD4 (delete temporary datasets)

Select option **5**. This job deletes the temporary table database created in KLSJOBD1.

Reinstate Customization from Previous Version

Refer to “Reinstate Customization from Previous Version” on page 169.

Run the KLSNMPRG Dialog (optional)

Refer to “Run the KLSNMPRG Dialog (optional)” on page 171.

Migration Tasks

Introduction

This section describes each migration task in detail. You must complete only the tasks that apply to your circumstances. To determine which tasks you must perform, see one of the following sections:

- "Migration from Version 115 to Version 147" on page 141
- "Migration from Version 145 to Version 147" on page 147
- "Migration from Version 146 to Version 147" on page 154

Reassemble User Exits

Reassemble all user exits from your current version using the Version 147 macro library. Copy the sample JCL in *&thilev*.TLSSAMP(KLS@ASM) into *&rhilev*.RLSSAMP and modify it for your installation (for example, the job cards), if you haven't already done so. You must link all user exits to *&rhilev*.RLSLOAD.

- If you have not previously implemented any user exits, take no action.
- If you are using exits as shipped by Candle, reassemble the exits provided in Version 147.
- If you are using Candle exits that have been modified for your site, copy the Version 147 exit(s) into *&rhilev*.RLSSAMP, refit your modifications into that copy, and assemble them.
- If you are converting from Version 115 and you used the $USREXIT in Version 115, refer to the *Dialog Language Reference Manual* for information on $USREXIT in Version 147.
- If you have written your own exits, reassemble them.

Rename Group Profile Selection Dialogs

If you have previously created a group profile selection dialog that dynamically assigns a group profile to users during logon, you must rename your current group selection dialog to KLSSGRPS in *&rhilev*.RLSPNLS.

Your group selection dialog must include a)COPY KLSSDCL statement in order to include the CL/SUPERSESSION variable declarations. KLSSGRPS must set variable VSPDFLT to specify the group profile that is assigned to users. KLSSGRPS must *not* set any other Candle product variables.

Note: The Version 147 conversion dialog invokes dialog KLSSGRPS to determine the group profile to be assigned to users. As shipped, however, KLSSGRPS does not assign a group profile.

Run the SSPL Dialog Conversion

Note: If you are converting from Version 115 or Version 145, this task is required.

Syntax for the SSPL dialogs has changed in Version 146, and that syntax also applies to Version 147. After all dialogs have been converted to Version 146 SSPL syntax, all future modifications to those dialogs must use the Version 146 SSPL syntax; otherwise, the dialogs will not refresh.

"SSPL Conversion Utility" on page 173 provides detailed information about this utility.

The SSPL conversion utility (KLVCNVT) reads a USER.VTPPLIB library, analyzes each source statement, makes required conversions, and optionally writes the converted dialogs to the dataset that you specify on the SSPLOUT DD in the JCL.

The supplied JCL writes the output members to a temporary library which will be input to the migration assistance utility.

KLVCNVT does not perform syntax or semantic validation beyond what is required to detect items that need conversion. It expects valid, compilable SSPL dialogs as input.

Note: Use the SSPL dialog conversion utility on your Version 115 or 145 USER.VTPPLIB members only. Do not run this utility on the Candle-distributed library.

The JCL for this utility is as follows:

- KLSJOBB2 (V115 migration)
- KLSJOBC2 (V145 migration)

Edit according to the instructions in the member and then submit the job. If a return code other than 0 is generated, see "Return Codes" on page 179. If a return code of 0 is generated, review the output and continue with the next step.

Run the Migration Assistance Utility

Note: If you are converting from Version 115 or Version 145, this task is required. It must be run *after* the SSPL conversion utility.

The Version 146 migration assistance utility reads a USER.VTPPLIB library (output from the SSPL dialog conversion) or a CL/SUPERSESSION Version 115 or 145 initialization library (USER.VTPILIB), analyzes each statement, reports on possible migration considerations, and optionally writes migrated members to the dataset that you specify on the MIGROUT DD in the JCL.

The supplied JCL consists of two steps, each of which writes output members to a temporary library. These temporary libraries will be input to the rename utility.

The utility does not determine indirect references to variable names. It presumes that the input is either an unscrambled SSPL dialog or an initialization member. Processing other input produces unpredictable results. The utility does not process comments (text beginning with)COM or between **/*** and ***/**) and does not process)BODY text.

"Migration Assistance Utility" on page 181 contains detailed information about this utility.

The JCL for this utility is as follows:

- KLSJOBB3 (V115 migration)
- KLSJOBC3 (V145 migration)

Edit according to the instructions in the member and then submit the job. If a return code other than 0 is generated, see "Return Codes" on page 187. If a return code of 0 is generated, review the output as explained in the rest of this section and then continue with the next step.

Note: Do not run this utility on the Candle-distributed libraries. Use the migration utility only on

- your Version 115 or Version 145 USER.VTPILIB members, or
- the temporary USER.VTPPLIB, which was output from the SSPL conversion utility

After you execute the migration assistance utility, a report is generated. You then may have to make additional changes to the temporary USER.VTPPLIB or USER.VTPILIB based on this report.

In the report that is generated, the MOD column indicates lines that have been modified or added, and lines that may need to be modified.

Important

Some lines in the report may be flagged with a right caret (>) to indicate that the line may need modification. Reasons for flagging include password encryption and invalid dialog functions being used. Flagged statements that require modification must be done manually.

Make all required modifications to the PDS that you specified as the MIGROUT DD in the KLSJOBB3 or KLSJOBC3 JCL.

When the migration assistance utility encounters a dialog member, it may report the following in the MESSAGE DD output:

- If the dialog member has become obsolete, message KLSMI100 is generated:

  ```
  MEMBER xxxxxxxx IS NOW OBSOLETE
  ```

  KLSMI100 is generated when a Version 115 or 145 dialog will not be executed by Version 146 dialogs. Delete this dialog unless it is used by another user-written dialog.

- If the dialog member has been renamed, message KLSMI101 is generated:

  ```
  MEMBER xxxxxxxx SHOULD BE RENAMED AS yyyyyyyy
  ```

  If KLSMI101 is generated, rename the dialog member referenced in that message. Some product dialogs have been renamed in Version 146. To use these dialogs, modify and execute only the Version 146 product dialogs (retrofit previous modifications if necessary). Do *not* use Version 115 or 145 product dialogs and then attempt to convert them. Unpredictable results will occur.

When you run the migration assistance utility, the SYSPRINT DD lists changed, flagged, or added dialog lines as follows:

- If a reference to a renamed dialog is encountered, the line is marked with an asterisk (*) in the report, and the reference to the renamed dialog is changed to the new dialog name. No action is required on your part.

- If a reference to an obsolete dialog name is encountered, it is flagged by identifying the line with a right caret (>). You must modify your dialog so that it does not reference this obsolete dialog name.

  It is unlikely that any user-written dialogs would invoke an obsolete dialog because none of the obsolete dialogs have been documented as being executable outside of the product. However, you may have an old modified product dialog in your user library that references an obsolete dialog.

- If a modified dialog function is encountered, it is flagged by identifying the line with a right caret (>). You must change the reference to the dialog function to use the syntax for that dialog function as described in the *Dialog Language Reference Manual*.

- If a product password variable name is encountered, it is flagged by identifying the line with a right caret (>). In Version 146, references to product passwords are encrypted using the ENCDEC dialog function.

You must encrypt the passwords that are flagged using the ENCDEC dialog function. For example:

Old:

```
vsstype(&sysparm '&vsspswd')
```

New:

```
vsstype(&sysparm '&encdec('&vsspswd')')
```

Do not decrypt a password variable for a compare. Instead, encrypt the variable being compared and compare the two encrypted values. For example:

Old:

```
if '&pwd' = '&vigpswd'
   do

    ⋮
```

New:

```
if 'encdec('&pwd')' = '&vigpswd'
   do

    ⋮
```

For further information on ENCDEC, see the *Dialog Language Reference Manual*.

- If a renamed message token is encountered, the line is marked with an asterisk (*), and the reference to the renamed dialog is changed to the new dialog name. No action is required on your part.
- If a renamed message token is referenced in an initialization member, the migration utility reports that it is renamed.
- If a member name is an alias, the migration utility ignores it. The alias name is not propagated to the output.

Run the Rename Utility

If you are converting from Version 115, Version 145, or Version 146 this task is required. It must be run *after* the migration assistance utility (which is for V115 and V145 only).

The Version 147 rename utility reads a USER.VTPPLIB library (which may be output from the migration utility), a USER.VTPILIB library (which may

be output from the migration utility), and a USER.VTPCLIB library. The utility analyzes each statement, reports on possible migration considerations, and optionally writes migrated members to the dataset that you specify on the KLSPNLS DD, KLSPARM DD, and KLSCMDS DD in the JCL.

The supplied JCL writes output members to *&rhilev*.RLSPNLS, *&rhilev*.RLSPARM, and *&rhilev*.RLSCMDS; these will be the CL/SUPERSESSION runtime libraries.

The utility does not determine indirect references to variable names. It presumes that the input is either an unscrambled SSPL dialog, an initialization member, or a command member. Processing other input produces unpredictable results. The utility does not process)BODY text.

See "Rename Utility" on page 189 for detailed information about this utility.

The JCL for this utility is as follows:

- KLSJOBB4 (V115 migration)
- KLSJOBC4 (V145 migration)
- KLSJOBD2 (V146 migration)

Edit according to the instructions in the member and then submit the job. If a return code other than 0 is generated, see "Return Codes" on page 196. If a return code of 0 is generated, review the output as explained in the rest of this section and then continue with the next step.

Note: Do not run this utility on the Candle-distributed libraries. Only use the rename utility on the following libraries:

- USER.VTPCLIB
- USER.VTPILIB
  - USER.VTPILIB if you are currently running Version 146
  - the temporary USER.VTPILIB, which was output from the migration utility, if you are currently running Version 115 or Version 145
- USER.VTPPLIB
  - USER.VTPPLIB if you are currently running Version 146
  - the temporary USER.VTPPLIB, which was output from the migration utility, if you are currently running Version 115 or Version 145

Rename utility messages

After you execute the rename utility, a report is generated. You may then have to make additional changes to RLSCMDS, RLSPARM, and RLSPNLS based on this report.

In the generated report, the MOD column indicates lines that have been modified or added by the utility. Some lines in the report may be flagged with an F to indicate that the line needs manual modification. Messages

written to DDNAME KLSMSGS identify lines that should be examined to determine if manual modifications are required. Make all required modifications to the datasets that were output from this utility.

When you run the rename utility, the SYSPRINT DD lists modified, flagged, or added dialog lines as follows:

- If a reference to a renamed dialog is encountered, the line is marked with an M in the report, and the reference to the renamed dialog is changed to the new dialog name. No action is required on your part.
- If a line is expanded beyond column 80, the utility attempts to split the line.
  - If it can split the line, it adds a new line marked with an A in the report. Message KLSRN105 is also written to KLSMSGS. You may wish to reformat the affected lines for aesthetic or stylistic reasons.
  - If it cannot split the line it will be marked with an F in the report. Message KLSRN107 is also written to KLSMSGS. You must reformat the affected line.
- If a renamed message token is referenced in an initialization member, the migration utility reports that it is renamed.
- If a member name is an alias, the migration utility ignores it. The alias name is not propagated to the output.

Note: Certain members are excluded by the rename utility. For a list of these members, see "Reinstate Customization from Previous Version" on page 169.

Start CL/SUPERSESSION

Important

Ensure that the steps described in "Installation Verification Cleanup" on page 41 have been executed before you continue.

Activate the VTAM major node by issuing the following VTAM command from the MVS console:

```
V NET,ACT,ID=newname
```

where *newname* is the VTAM major node name copied into SYS1.VTAMLST.

Then, enter this command from the MVS 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.

```
KLVIN408 CANDLE ENGINE VERSION 147 READY ON cpu(sernum): GSA(hexadd)
```

where *cpu* is the system ID, *sernum* is the CPU serial number, and *hexadd* is the hexadecimal address of the global storage area (GSA).

Convert Profile Table format

In Version 147, the format of the profile tables used by the product changed from that used in Versions 145 and 146. In order to accommodate these changes, your Version 115 NAM information, or Version 145 or Version 146 profiles must be converted to use the new Version 147 profile format.

You must use Version 147 KLSINNAM. Do not migrate $INITNAM from your existing version. The Version 147 KLSINNAM contains additional definitions required in Version 147.

Important

Before you start the profile conversion process, all session IDs defined with APPLDEF commands that you specified when running Version 115, Version 145, or Version 146 must be defined in Version 147. In order to convert the profiles correctly, the process requires that the same session definitions are present in the Version 147 environment.

1. Close all HOSTGATE ACBs and CT/Engine operator ACBs to prevent users from logging on during the profile conversion process. This is necessary because the profile of any user logging on during the conversion process is not converted. To convert this user's profile, you would then have to rerun the process.

   To close the HOSTGATE ACBs and CT/Engine operator ACBs, you need to know

   - the name of the started task under which CL/SUPERSESSION runs
   - the ACBNAME(s) used for HOSTGATE(s)

     The ACBNAME(s) can be found in the RLSCMDS member KLGCHGGW. Next to each HOSTGATE command is the name of the ACB that must be closed.
   - the ACBNAME(s) used by the CT/Engine operator

The ACBNAME(s) can be found in the RLSCMDS member KLSSTART. There is a line with a NODE command followed by an ACB name, for example, NODE KLST000.

For each ACBNAME you have identified above, issue the following modify command from your system console:

```
F kls,CLOSE acbname
```

where *kls* is the name of your CL/SUPERSESSION started task and *acbname* is the ACBNAME you identified from the KLGCHGGW and KLSSTART members of RLSCMDS.

As installed, the *&rhilev*.RLSCMDS member KLGCTBCV has the ACBNAME matching the CT/Engine operator ACBNAME that you identified in step 1 on page 165. Candle suggests using this ACBNAME because

- no changes are required to VTAMLST
- most users will not attempt to log onto this ACBNAME

You must also provide a configuration member for the HOSTGATE command. The default provided is KLGICFG1, but you may use any existing configuration member in your library.

As installed, the *&rhilev*.RLSCMDS member KLGCTBCV specifies configuration KLGICFG1. For example, if you specified KLST000 (default) as the value of the CICAT customization variable *&lsvt*, KLGCTBCV will be the following:

```
HOSTGATE KLST000           -
         CONFIG=KLGICFG1   -
         DIALOG=KLSCVTRT   -
         ATTENTION=KLGWATTN
```

2. Issue the KLGCTBCV command.

   After all ACBs identified in step 1 on page 165 above are closed, issue the following modify command from your system console:

   ```
   F kls,KLGCTBCV
   ```

   where *kls* is the name of your CL/SUPERSESSION started task. The following message appears:

   ```
   KLGOP035 GATEWAY STARTED: APPLID(KLST000) CONFIG(KLGICFG1) DIALOG(KLSCVTRT)
   ```

3. Log onto your CT/Engine ACB (KLST000 in the above example).

   The Candle logo panel appears and the conversion process starts automatically.

4. Press Enter.

The panel shown in Figure 39 on page 167 appears.

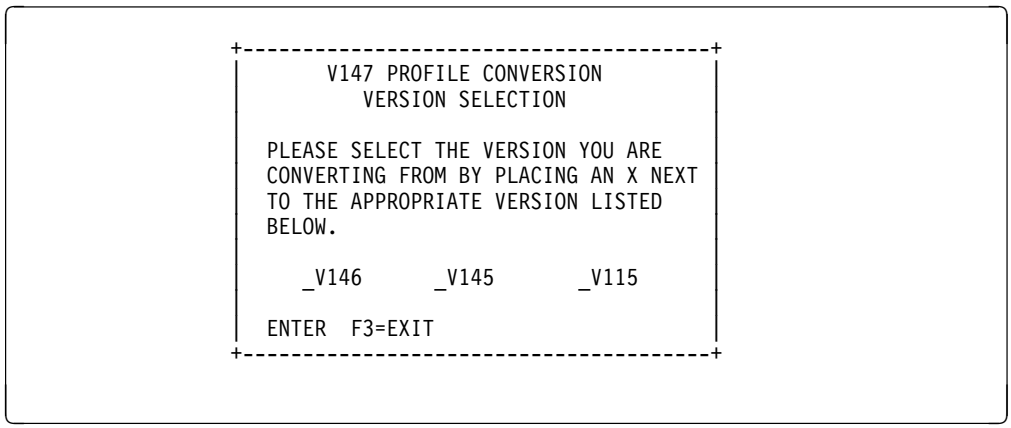

Figure 39. Profile Conversion Version Selection

5. Type **X** in front of the version from which you are converting and press Enter.

   The panel shown in Figure 40 displays.

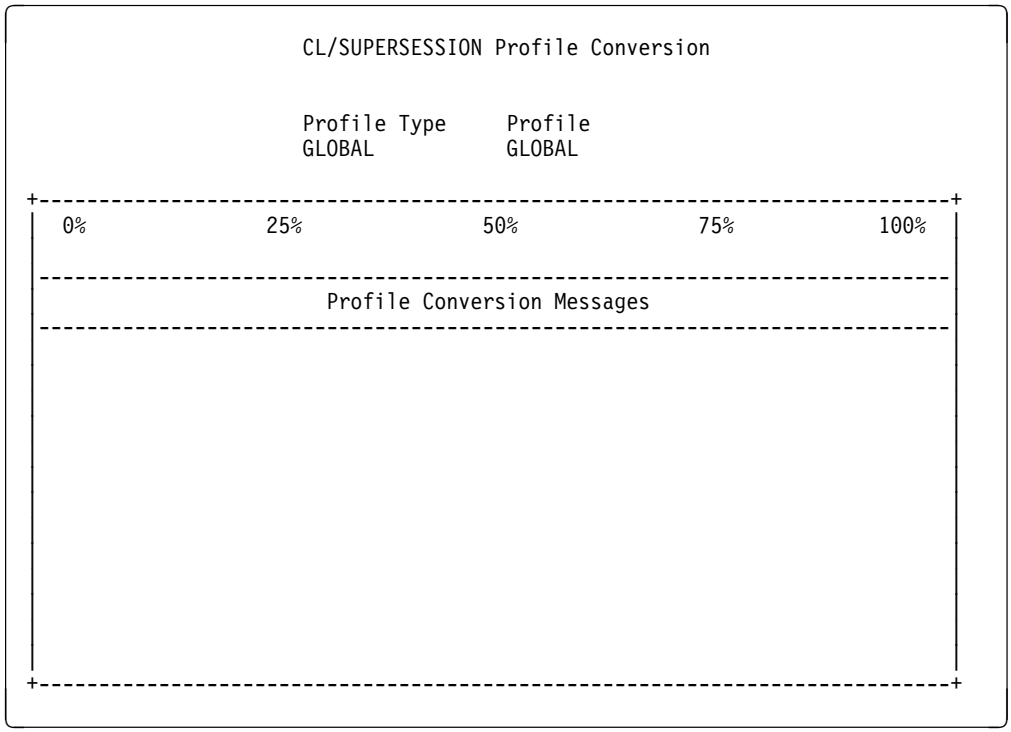

Figure 40. CL/SUPERSESSION Profile Conversion Panel

6. Monitor the progress of the conversion process.

   The process begins with the global profile, then the group profiles, and finally the user profiles. No other tables within the table database are affected. As the tables are converted, the status bar indicates what

percentage of the process is complete, and a message is generated for each profile as it is converted.

The profile conversion error messages are logged in the CL/SUPERSESSION TLVLOG SYSOUT DD and in the profile conversion message area of the panel. Conversion messages are in the following colors:

Green Indicates normal completion.
Yellow Indicates a warning message.
Red Indicates that the conversion of the profile failed.

When the conversion process is complete, the following message appears:

```
Convert routine complete.
Hit ENTER to exit  <===
```

7. Check for messages.

   Review the TLVLOG SYSOUT dataset for messages that require an action on your part. If there are no messages, the conversion process is finished. If there are messages, refer to the *Messages Manual* for user action.

   Note: If the conversion completes with return code 12, IDCAMS DELETE and reDEFINE *rvhilev*.CONVERT.TDB and rerun the process. If the errors persist, contact Candle Customer Support.

Combined NAM and table profiles

During the profile conversion process, the Version 145 profile tables are converted to Version 147 profile tables. If you have previously modified CL/SUPERSESSION to use both the table database *and* the NAM database to store profile information, the profile information stored on the NAM database is *not* converted. The Version 145 to Version 147 profile conversion does not look at the values in the NAM database for profile information.

If you want to retain your site's global or group profiles that were stored on the NAM database, you can obtain the values from the NAM database after the conversion process is complete.

1. Issue NAM DISPLAY commands from the CT/Engine operator for the profiles that were stored on the NAM database.
2. From the profile administration panels, enter these values into the newly created Version 147 profiles.

User extensions to profile tables

If you have previously customized your dialogs to add extension variables to the profile tables, these extension variables are not copied to the Version 147 profile tables.

Session order

This applies only if you are migrating from Version 115 or Version 145.

After you perform the profile conversion and then sign onto the Version 147 system, you may notice that sessions display on the menu in a different order than they displayed in Version 115 or Version 145. When you added a session in Version 115 or Version 145, the new session appeared either before or after the session from which you issued the **Add** action code.

Version 147 sessions, including those converted from Version 115 or Version 145, are sorted according to their group, order, and session ID values, respectively. They appear in this order on the Main Menu. You can use the REORDER command from the command line on the Main Menu to change the order in which your sessions display on the Main Menu. Refer to the *User's Guide* for information about the REORDER command.

Stop CL/SUPERSESSION

Issue the following command to the MVS console:

```
F kls,SHUTDOWN
```

where *kls* is the name of your CL/SUPERSESSION started task.

Issue the command a second time for confirmation.

Reinstate Customization from Previous Version

The suffix for national language dialogs has changed. As a result, product dialogs that use the NLS suffix as data have logic changes that the rename utility does not handle. If you customized any of the following dialogs, you must copy the Version 147 member to *&rhilev*.RLSPNLS (from *&thilev*.TLSPNLS) and reapply your customization to that copy.

- GATEWAY (renamed KLGATEWY)
- GDRES (renamed KLGDRES)
- GLGON (renamed KLGLGON)
- GLGONE (renamed KLGLGONE)
- GLGONP (renamed KLGLGONP)
- GNTRY (renamed KLGNTRY)
- LGVAL (renamed KLGVAL)
- LGGW2 (renamed KLGGW2)
- SADCME (renamed KLSADCME)
- SADCMP (renamed KLSADCMP)
- SLANGP (renamed KLSLANGP)
- SSQLANG (renamed KLSQLANG)

- SSHELPP (renamed KLSSHLPP)
- SSINFP (renamed KLSSINFP)
- SUOPSE (renamed KLSUOPSE)
- SUOPSP (renamed KLSUOPSP)

The provided JCL for the rename utility excludes certain members. If you had customized these members for the previous version, you can reinstate the changes manually.

- $HGATES (renamed to KLGCHGGW)
- $MTOS (renamed to KLICIMTO)
- $STARTUP (renamed to KLSSTART)
- $VSMS (renamed to KLS$VSMS)

- SYSIN (renamed to KLSSYSIN)
- VTPINNAF (renamed to KLVINNAF)
- VTPINNAM (renamed to KLVINNAM)
- VTPINTB (renamed to KLVINTB)
- VTPINVLG (renamed to KLVINVLG)
- VTPINVPO (renamed to KLVINVPO)

Do not migrate the following members:

- $CONVERT
- $INITNAM
- $STARTIV
- $STVGWIV
- $STVSSIV
- LGMAINT

Make all modifications to copies of Version 147 Candle-supplied dialogs.

If you are migrating from Version 115 or Version 145, you must use the Version 147 dialog language syntax.

See the *Dialog Language Reference Manual* for information about dialog language syntax. See “Cross Reference Table - KLSTBLS” on page 199 for a list of the dialog names changed between different versions.

Run the KLSNMPRG Dialog (optional)

Note: Do *not* use the KLSNMPRG dialog until you have completed the profile conversion process.

If you want to delete the product-defined NAM variables on the NAM database, you must use the KLSNMPRG dialog. Only product-defined profile variables are deleted. The NAM key variables are not deleted. (The NAM key is the first parameter on a NAM DECLARE statement.)

Using a user ID with administrator authority, enter **`dialog KLSNMPRG`** from the Main Menu command line.

Your installation and conversion process is now complete.

Appendix B. SSPL Conversion Utility

You must run the SSPL conversion utility when migrating from Version 115 or Version 145. For specific instructions on the use of the utility, see one of the following sections:

- "Migration from Version 115 to Version 147" on page 141
- "Migration from Version 145 to Version 147" on page 147

This appendix contains detailed information describing the utility as a whole.

The SSPL conversion utility (KLVCNVT) reads an SSPL dialog library, analyzes each source statement, makes the required conversions, and writes the converted dialogs to another library.

The KLVCNVT utility does not perform syntax or semantic validation beyond what is required to detect items that need conversion. It expects valid, compilable SSPL dialogs as input.

Important

- Run this utility on user libraries only.
- Do not run this utility on the Candle-distributed libraries (TLVPNENU and TLSPNLS).

The utility converts each dialog as follows:

- If the dialog does not have an)OPTION statement, the utility adds)OPTION with a LEVEL(1) keyword. LEVEL(1) indicates that the dialog is at the converted syntax level. The KLVCNVT utility will not perform any conversion processing on dialogs with LEVEL(1) already present.
- If the dialog contains an)OPTION statement, but it does not have a LEVEL(1) keyword, the utility adds LEVEL(1). If LEVEL(0) is present, the utility changes it to LEVEL(1).
- The utility changes all dialog function invocations that are not imbedded in strings so that their parameter lists are properly enclosed in parentheses.
- If the references described below occur outside of a string, the utility converts them as follows:
  - Indirect variable references of the form **`EVAL &&x&y`** or **`EVAL(&&x&y)`** are changed to **`'&('x&y')'`**.
  - Concatenation references of the form **`x&y`** are changed to **`'x&y'`**.

  These references must match exactly, spaces included.

- If the references described below occur inside of a string, the utility converts them as follows:
  - Substring references of the form **&SYSEDIT((i,j)string)** are changed to **&SUBSTR('string',i,j)**.
  - Length references of the form **&SYSLEN(string)** are changed to **&LENGTH('string')**.

  These references must match exactly, spaces included.

)COPY Members

KLVCNVT detects)COPY members as it is scanning the input library(s), and processes them at the end of the conversion run. If a member is processed and subsequently used as a)COPY member, the utility reprocesses the member to remove the extra)OPTION LEVEL(1) statement that was added to it.

The conversion utility handles)COPY member processing only for libraries that are submitted for the conversion. If an unconverted dialog copies a member that has been converted, the dialog will fail. Similarly, a converted dialog will fail if it contains a)COPY referencing an unconverted dialog.

Alias Names

If a member name is an alias, the conversion utility ignores it. The alias name is not propagated to the output.

JCL Considerations

Use the supplied JCL in *shilev*.INSTLIB or CICAT to initiate the SSPL conversion utility:

- KLSJOBB2 if migrating from V115
- KLSJOBC2 if migrating from V145

To control KLVCNVT processing, code the following keywords in any sequence in the JCL EXEC statement (use the PARM= parameter).

Member selection control parameters:

INCLUDE The SYSIN file contains the names of members to be processed.

EXCLUDE The SYSIN file contains the names of members not to be processed.

Note: If neither INCLUDE nor EXCLUDE is coded, the SYSIN file is ignored and all members are converted.

ISPF user data processing parameters:

UDATA (Default) The SSPL input library directory entries contain user data in ISPF format. The conversion utility updates the data in each member's directory entry as follows:

- The last-modified date and time are set to the current date and time.
- The user ID is set to the first 7 characters of the job name. (ISPF recognizes the directory information only if the last character of the user ID is blank.)
- The revision number is incremented by 1, to a maximum of 99. If the revision number is already at 99, it is not modified.
- The number of modified lines is updated to reflect the actions KLVCNVT performed on the member.

NOUDATA Any user data in the SSPL input library directory entries is ignored; no user data is written to the output library.

ASISUDATA The SSPL conversion utility maintains the user data field of the PDS entry as it currently exists.

National character support parameter:

INTLCHAR The dialog(s) contain national language characters. Code this keyword only if your CT/Engine VTPILIB member SYSIN has INTLCHAR specified.

The JCL uses the following input and output files:

SSPLIN The SSPL dialog library (or libraries) to be converted. This file is required.

The library must be a partitioned dataset. Record formats of fixed (F), fixed-blocked (FB), variable (V), and variable-blocked (VB) are acceptable. Concatenated libraries are supported; only the first copy of any given member is processed.

If the last 8 columns (F/FB records) or the first 8 columns (V/VB records) are all numeric, they are treated as a line

number and ignored; otherwise, the columns are considered part of the SSPL statement.

Note: No line numbers are written to the output file.

SYSIN INCLUDE or EXCLUDE member names. This file is required if INCLUDE or EXCLUDE is requested; it is ignored otherwise.

The library must be a sequential dataset with a logical record length of 80 and a record format of fixed-block (FB). Any valid block size is acceptable.

Columns 1 through 8 are assumed to contain a member name to be processed; columns 9 through 80 are ignored. No validation is done on the member names; if a member is not found, it is ignored and no message is issued.

TLVLOAD The CT/Engine Version 145 or 147 load library (or libraries). This file is required.

The library must be a partitioned dataset with a record format of undefined (U). Any valid block size is acceptable.

If you are converting from Version 145 to Version 147, make sure the TLVLOAD DD points to the Version 145 load library. If you are converting directly from Version 115 to Version 147, make sure the TLVLOAD DD points to the Version 147 load library.

When migrating from Version 115, you should carefully review the output from the conversion utility because Version 147 may have introduced functions that coincide with variable names that were in use in customized dialogs.

Note: DDNAME TLVLOAD is used to determine the names of the SSPL dialog functions; it contains the CT/Engine and the CL/SUPERSESSION load libraries.

SSPLOUT (Optional) The library to receive converted dialogs. If omitted, the converted dialogs are not saved.

The library must be a single partitioned dataset. It must have a logical record length at least as large as the SSPLIN file. It may have a record format of fixed (F), fixed-blocked (FB), variable (V), or variable-blocked (VB); the RECFM need not match that of the SSPLIN file. Any valid block size is acceptable. The SSPLOUT LRECL must be equal to or greater than the SSPLIN LRECL.

MESSAGE A listing of status and conversion messages. This file is required.

The file must be a sequential dataset. It is forced to a logical

record length of 133 and a record format of FBA. Any valid block size is acceptable; if you specify an invalid block size or no block size, 1330 is used.

SYSPRINT (Optional) A listing of each member as it is converted. If omitted, no output is generated.

The file must be a sequential dataset. It is forced to a logical record length of 133 and a record format of FBA. Any valid block size is acceptable; if you specify an invalid block size or no block size, 1330 is used.

To review the conversion changes before they are applied, omit the SSPLOUT file and ensure that SYSPRINT is present.

Message Output

KLVCNVT generates the messages shown in Figure 41 as the conversion is in process.

```
CESC01 PARAMETERS: INCLUDE
CESC04 PROCESSING OPTIONS IN EFFECT: UDATA

CESC10 INCLUDE/EXCLUDE MEMBER LIST:
     TIM
     TIMBRWS
     TIMBRWSD
       .
       .
       .
     TIMX
     TIMZ

CESC30 FUNCTIONS FOUND IN TLVLOAD:
     $OPENDST
       .
       .
       .
     TBOPEN

CESC09 PROCESSING TIM      IN USER02.USER.VTPPLIB
CESC09 PROCESSING TIMBRWS  IN USER02.USER.V1469102.VTPPLIB
  .
  .
  .
CESC09 PROCESSING TIMZ     IN USER02.USER.VTPPLIB

CESC12 PROCESSING COMPLETED

CESC07 DSNAME=USER02.USER.V1469102.VTPPLIB...
CESC07 DSNAME=USER02.USER.VTPPLIB...

CESC08 TOTAL UNIQUE MEMBERS=  88  PROCESSED=  34
```

Figure 41. MESSAGE Output

The messages reflect the following conversion steps:

1. KLVCNVT identifies the processing options that are in effect.
2. If INCLUDE or EXCLUDE is specified, KLVCNVT processes the contents of the SYSIN file.
3. KLVCNVT identifies the SSPL dialog functions in the TLVLOAD file(s).
4. KLVCNVT converts each dialog member.
5. SSPL displays the number of members examined and the number processed.

Sample SYSPRINT Output

KLVCNVT generates the SYSPRINT output shown in Figure 42.

```
CESC14 MEMBER SUINIE   IN TDCL2.V145REL.VSSPLIB

LINE MOD  TEXT                                                  T
---- ---  ------------------------------------------------------ -
   1      )comment
   .
   .
   9 +    )OPTION LEVEL(1)
  10      )init
   .
  23  *    set RC (TBOPEN(...))
   .
   .
   .
 145       return

CESC15 LINES MODIFIED=  22  ADDED=   1  DELETED=   0
```

Figure 42. SYSPRINT Contents

Only changed dialog lines are printed. The first line identifies the PDS member name and the name of the dataset from which it is being read. The output summarizes the changes made as follows:

LINE Identifies the relative line number of the dataset.

MOD Identifies the changes made to the line.

- An asterisk (*) means the line was changed.
- A plus sign (+) means the line was added.
- An asterisk followed by a plus sign means the line was added and modified.

TEXT Shows the converted or added text line.

T Identifies a truncation flag. If the converted line is too long to be printed, it is truncated *on the listing only*, and a plus sign (+) appears in this column. The full text line is written to the SSPLOUT library.

The last line documents the total number of lines modified, added, and deleted during the conversion process. If the dialog does not require changes, it does not appear in SYSPRINT.

Return Codes

0 Processing is successful. All requested members are converted.

4 Reserved for future use.

8 The SSPLIN, MESSAGE, TLVLOAD, or SYSIN DD statement is missing.

12 One or more invalid or conflicting parameters were specified on the JCL EXEC PARM statement.

16 The SSPLIN or SSPLOUT dataset contains an invalid dataset LRECL or RECFM.

20 The SSPLOUT PDS directory could not be updated, probably because no directory blocks are available.

Appendix C. Migration Assistance Utility

If you are migrating from Version 115 or Version 145 to Version 147, you must first convert your dialogs to Version 146 format. Use the migration assistance utility to accomplish this step. Then use the rename utility (see "Rename Utility" on page 189) to migrate to Version 147.

For specific instructions on the use of this utility, see one of the following sections:

- "Migration from Version 115 to Version 147" on page 141
- "Migration from Version 145 to Version 147" on page 147

This appendix contains detailed information describing the migration assistance utility as a whole.

To implement Version 147 in an existing CL/SUPERSESSION environment, you must perform the following migration activities:

- Identify all references made by your user-written dialogs to the encrypted product variables. Then add the ENCDEC dialog function to decrypt the variable in order to obtain the correct value. For more information about ENCDEC, see the *Dialog Language Reference Manual*.
- Identify all references made by your user-written dialogs to CL product message tokens. Then change them appropriately to obtain the desired message text.
- Change all references to renamed dialogs. Some dialogs were renamed in Version 146. Execute only the new, enhanced (and supported) dialogs. This includes renaming any user-customized copies of renamed dialogs.
- Remove all references to obsolete dialogs. It is unlikely that any user-written dialogs would invoke an obsolete dialog, because none of the obsolete dialogs have been documented as being executable outside of the product. However, you may have an old modified product dialog in your user library that references an obsolete dialog.
- Change each dialog function whose syntax has been altered.

Version 147 includes a migration assistance utility to help you identify the dialog changes that you must make in order to implement this release of CL/SUPERSESSION. The utility

- reads an SSPL dialog library or a CL/SUPERSESSION or CL/GATEWAY initialization library (VTPILIB)
- analyzes each statement
- reports on possible migration considerations

- can write changed dialog or VTPILIB members to another library, if desired

The utility does not determine indirect references to variable names. It presumes that the input is either an unscrambled SSPL dialog or an initialization member. Processing other input produces unpredictable results. The migration utility does not process comments (text beginning with)COM or between **/*** and ***/**) and does not process)BODY text.

Important

1. Do not mix VTPILIB and VTPPLIB input libraries.
2. Run this utility on libraries that contain user-written code only. Do not run this utility on the Candle-distributed libraries.
3. Before running the migration assistance utility with PARM=PLIB, ensure that the SSPL conversion utility has been run for the MIGRIN dataset.

JCL Considerations

Use the supplied JCL in *shilev*.INSTLIB or CICAT to initiate the migration assistance utility:

- KLSJOBB3 if migrating from V115
- KLSJOBC3 if migrating from V145

To control KLSMIGT processing, code the following keywords in the JCL EXEC statement (use the PARM= parameter).

Member selection control parameters:

INCLUDE The SYSIN file contains the names of members to be processed.
EXCLUDE The SYSIN file contains the names of members not to be processed.

Note: If neither INCLUDE nor EXCLUDE is coded, the SYSIN file is ignored and all members are interrogated.

ISPF user data processing parameters:

UDATA (Default) The input library directory entries contain user data in ISPF format. The utility updates the data in each member's directory entry as follows:

- The last-modified date and time are set to the current date and time.
- The user ID is set to the first 7 characters of the job name. ISPF recognizes the directory information only if the last character of the user ID is blank.
- The revision number is incremented by 1, to a maximum of 99. If the revision number is already at 99, it is not modified.
- The number of modified lines is updated to reflect the actions KLSMIGT performed on the member.

NOUDATA No user data is written to the output library. Any user data in the input library directory entries is ignored.

ASISUDATA User data is maintained as it currently exists.

Library type parameters:

PLIB (Default) The MIGRIN dataset contains SSPL dialog members.
ILIB The MIGRIN dataset contains initialization members.

The JCL uses the following input and output files:

MIGRIN The dialog or initialization library (or libraries) to be interrogated.

The library must be a partitioned dataset. Record formats of fixed (F), fixed-blocked (FB), variable (V), and variable-blocked (VB) are acceptable. Concatenated libraries are supported. Only the first copy of any given member is processed.

If the first 8 columns (V/VB records) or the last 8 columns (F/FB records) are all numeric, they are treated as a line number and ignored: otherwise, the columns are considered part of the code.

Note: No line numbers are written to the output file.

SYSIN The INCLUDE or EXCLUDE member names. This file is required if INCLUDE or EXCLUDE is requested. If not, it is ignored.

The library must be a sequential dataset with a logical record length of 80 and a record format of fixed-block (FB). Any valid block size is acceptable.

Columns 1 through 8 are assumed to contain a member name to be processed. Columns 9 through 80 are ignored. No

validation is done on the member names. If a member is not found, it is ignored and no message is issued.

MIGROUT (Optional) The library to receive modified dialogs or initialization library members. If omitted, the updates are not saved.

The library must be a single partitioned dataset with a logical record length at least as large as the MIGRIN file. It may have a record format of fixed (F), fixed-blocked (FB), variable (V), or variable-blocked (VB). The RECFM does not have to match that of the MIGRIN file. Any valid block size is acceptable. The MIGROUT LRECL must be equal to or greater than the MIGRIN LRECL.

MESSAGE A listing of status and update messages.

The file must be a sequential dataset. It is forced to a logical record length of 133 and a record format of FBA. Any valid block size is acceptable. If you specify an invalid block size or no block size, 1330 is used.

SYSPRINT (Optional) A listing of each member as it is interrogated. If this file is omitted, no output is generated.

The file must be a sequential dataset. It is forced to a logical record length of 133 and a record format of FBA. Any valid block size is acceptable. If you specify an invalid block size or no block size, 1330 is used.

To review the updates before they are applied, omit the MIGROUT file and ensure that SYSPRINT is present.

Message Output

Figure 43 on page 185 shows messages that KLSMIGT generates during conversion progress.

```
KLSMI001 PARAMETERS: INCLUDE
KLSMI004 PROCESSING OPTIONS IN EFFECT: UDATA

KLSMI010 INCLUDE/EXCLUDE MEMBER LIST:
     TIM
     TIMBRWS
     TIMBRWSD
       .
       .
       .
     TIMX
     TIMZ

KLSMI009 PROCESSING TIM    IN USER02.USER.VTPPLIB
KLSMI009 PROCESSING TIMBRWS IN USER02.USER.V1469102.VTPPLIB
  .
  .
  .
KLSMI009 PROCESSING TIMZ   IN USER02.USER.VTPPLIB

KLSMI012 PROCESSING ENDED

KLSMI007 DSNAME=USER02.USER.V1469102.VTPPLIB...
KLSMI007 DSNAME=USER02.USER.VTPPLIB...

KLSMI008 TOTAL UNIQUE MEMBERS= 88 PROCESSED=  34
```

Figure 43. Sample MESSAGE Output

The messages reflect the following conversion steps:

1. KLSMIGT identifies the processing options that are in effect.
2. If INCLUDE or EXCLUDE is specified, KLSMIGT processes the contents of the SYSIN file.
3. KLSMIGT interrogates each dialog member.
4. KLSMIGT displays the number of members examined and the number processed.

Sample SYSPRINT Output

KLSMIGT generates the SYSPRINT output shown in Figure 44.

```
KLSMI014 MEMBER OESJ12 IN USER02.USER.VSSPLIB

LINE MOD  TEXT                                                    T
---- ---  ---------------------------------------------------------- -
   1      )comment
   .
   .
   9  *   )copy SSDCL
  10      )init
   .
  23  *    dialog SCMD
   .
  40  >    set dlgname '$beep'
   .
   .
 145       return

KLSMI015 LINES MODIFIED= 22 ADDED=   0  FLAGGED=   1
```

Figure 44. SYSPRINT Contents

Only changed dialog lines are printed. The first line identifies the PDS member name and the name of the dataset from which it is being read. The output summarizes the changes made as follows:

LINE Identifies the relative line number of the dataset.

MOD Identifies the changes made to the line.

- An asterisk (*) indicates the line was changed to reflect a renamed dialog change.
- A plus sign (+) indicates the line was added.
- An asterisk followed by a plus sign indicates the line was added and modified.
- A right caret (>) indicates the line is flagged and *may* require changes. Check your reference to the dialog, message token, or dialog language component to determine if it requires modification.

  Note: The migration assistance utility does not delete lines.

TEXT Shows the text line.

T Identifies a truncation flag. If the converted line is too long to be printed, it is truncated *on the listing only*, and a plus sign (+) appears in this column. The full text line is written to the MIGROUT library.

The last line reports the total number of lines modified, added, and flagged during the conversion process. If the dialog does not require changes, it does not appear in SYSPRINT.

Return Codes

0 Processing is successful. All requested members are converted.

4 Reserved for future use.

8 The MIGRIN, MESSAGE, or SYSIN DD statement is missing.

12 One or more invalid or conflicting parameters were specified on the JCL EXEC PARM statement.

16 The MIGRIN or MIGROUT dataset contains an invalid dataset LRECL or RECFM.

20 The MIGROUT PDS directory could not be updated, probably because no directory blocks are available.

Appendix D. Rename Utility

Because all dialogs have been renamed in Version 147, you must run the rename utility when migrating from Version 115, Version 145, or Version 146. For specific instructions on the use of this utility, see one of the following sections:

- "Migration from Version 115 to Version 147" on page 141
- "Migration from Version 145 to Version 147" on page 147
- "Migration from Version 146 to Version 147" on page 154

This appendix contains detailed information describing the utility as a whole.

Important

Run this utility only on libraries that contain user-written code or user-customized members. Do not run this utility on the Candle-distributed libraries. If you are migrating from Version 115 or Version 145 to Version 146, you must execute the migration assistance utility ("Migration Assistance Utility" on page 181) *before* the rename utility.

To enable your customized members to execute correctly in a CL/SUPERSESSION Version 147 environment, you must *change all references to renamed dialogs.*

Version 147 includes a rename utility to help you identify the dialog changes that you must make in order to implement this release of CL/SUPERSESSION. The utility

- reads one or more input libraries (USER.VTPCLIB, USER.VTPILIB, and USER.VTPPLIB)
- analyzes each statement
- reports on possible migration considerations
- can write changed VTPCLIB, VTPILIB, or VTPPLIB members to another library (KLSCMDS, KLSPARM, or KLSPNLS respectively), if desired

The utility does not determine indirect references to variable names. It presumes that the input is either an unscrambled SSPL dialog, an initialization member, or a command member. Processing other input produces unpredictable results. The rename utility does not process)BODY text.

Note: The rename utility will remove the contents of 'Revision History' and any change indicators (e.g. /*W123*/) starting at column 73.

JCL Considerations

Use the supplied JCL in *shilev*.INSTLIB or CICAT to initiate the rename utility:

- KLSJOBB4 if migrating from V115
- KLSJOBC4 if migrating from V145
- KLSJOBD2 if migrating from V146

To control KLSRNMT processing, code the following keywords in the JCL EXEC statement (use the PARM= parameter).

Member selection control parameter:

The selection criteria are applied to each DDNAME processed. This means that if one library has requirements that conflict with the requirements for another library, you must run the rename utility separately for the input DDNAME with the conflicting requirements.

EXCLUDE The SYSIN file contains the names of members to be excluded from processing.

Note: This should NOT be changed.

ISPF user data processing parameters:

UDATA (Default) The input library directory entries contain user data in ISPF format. The utility updates the data in each member's directory entry as follows:

- The last-modified date and time are set to the current date and time.
- The user ID is set to the first 7 characters of the job name. This is because ISPF recognizes the directory information only if the last character of the user ID is blank.
- The revision number is incremented by 1, to a maximum of 99. If the revision number is already at 99, it is not modified.
- The number of modified lines is updated to reflect the actions KLSRNMT performed on the member.

NOUDATA No user data is written to the output library. Any user data in the input library directory entries is ignored.

ASISUDATA User data is maintained as it currently exists.

Other processing parameters:

SHOWCHG Prints an additional line under each modified line printed in DDNAME SYSPRINT. This line has an asterisk (*) to identify columns of the line that were changed. The utility attempts to compensate for differences in length between old-name and new-name by inserting or deleting blanks; on occasion, the SHOWCHG line identifies data that was not changed but was shifted across because no adjustment could be made.

ERRMSG Writes only exception messages to DDNAME KLSMSGS instead of informational messages. (That is, KLSRN009 and KLSRN015 are not written.)

All input DDNAMEs are optional, but at least one of the following must be specified:

- VTPCLIB
- VTPILIB
- VTPPLIB

All output DDNAMEs are optional except KLSMSGS.

The JCL uses the following input and output files:

VTPCLIB The command library to be examined.

The library must be a partitioned dataset. Record formats of fixed (F), fixed-blocked (FB), variable (V), and variable-blocked (VB) are acceptable. Concatenated libraries are supported. Only the first copy of any given member is processed.

If the first 8 columns (V/VB records) or the last 8 columns (F/FB records) are all numeric, they are treated as a line number and ignored. If not, the columns are considered part of the code.

Note: No line numbers are written to the output file.

VTPILIB The initialization library to be examined.

The library must be a partitioned dataset. Record formats of fixed (F), fixed-blocked (FB), variable (V), and variable-blocked (VB) are acceptable. Concatenated libraries are supported. Only the first copy of any given member is processed.

If the first 8 columns (V/VB records) or the last 8 columns (F/FB records) are all numeric, they are treated as a line number and ignored. If not, the columns are considered part of the code.

Note: No line numbers are written to the output file.

VTPPLIB The dialog library to be examined.

The library must be a partitioned dataset. Record formats of fixed (F), fixed-blocked (FB), variable (V), and variable-blocked (VB) are acceptable. Concatenated libraries are supported. Only the first copy of any given member is processed.

If the first 8 columns (V/VB records) or the last 8 columns (F/FB records) are all numeric, they are treated as a line number and ignored. If not, the columns are considered part of the code.

Note: No line numbers are written to the output file.

SYSIN The EXCLUDE member names. This file is required.

The library must be a sequential dataset with a logical record length of 80 and a record format of fixed-block (FB). Any valid block size is acceptable.

Columns 1 through 8 are assumed to contain a member name to be processed. Columns 9 through 80 are ignored. No validation is done on the member names. If a member is not found, it is ignored and no message is issued.

KLSCMDS (Optional) The library to receive modified command library members. If omitted, the updates are not saved.

The library must be a single partitioned dataset with a logical record length at least as large as the VTPCLIB file. It may have a record format of fixed (F), fixed-blocked (FB), variable (V), or variable-blocked (VB). The RECFM does not have to match that of the VTPCLIB file. Any valid block size is acceptable. The KLSCMDS LRECL must be equal to or greater than the VTPCLIB LRECL.

Note: The DLSCMDS, TLSCMDS, and RLSCMDS libraries created as part of the installation process will have the following attributes: DSORG(PO), RECFM(FB), LRECL(80), BLKSZ(8880).

Candle recommends that you use either the RLSCMDS or a library with the same attributes.

KLSPARM (Optional) The library to receive modified initialization library members. If omitted, the updates are not saved.

The library must be a single partitioned dataset with a logical record length at least as large as the VTPILIB file. It may have a record format of fixed (F), fixed-blocked (FB), variable (V), or variable-blocked (VB). The RECFM does not have to

match that of the VTPILIB file. Any valid block size is acceptable. The KLSPARM LRECL must be equal to or greater than the VTPILIB LRECL.

Note: The DLSPARM, TLSPARM, and RLSPARM libraries created as part of the installation process will have the following attributes: DSORG(PO), RECFM(FB), LRECL(80), BLKSZ(8880).

Candle recommends that you use either the RLSPARM or a library with the same attributes.

KLSPNLS (Optional) The library to receive modified dialog library members. If omitted, the updates are not saved.

The library must be a single partitioned dataset with a logical record length at least as large as the VTPPLIB file. It may have a record format of fixed (F), fixed-blocked (FB), variable (V), or variable-blocked (VB). The RECFM does not have to match that of the VTPPLIB file. Any valid block size is acceptable. The KLSPNLS LRECL must be equal to or greater than the VTPPLIB LRECL.

Note: The DLSPNLS, TLSPNLS, and RLSPNLS libraries created as part of the installation process will have the following attributes: DSORG(PO), RECFM(FB), LRECL(80), BLKSZ(8880).

Candle recommends that you use either the RLSPNLS or a library with the same attributes.

KLSMSGS A listing of status and update messages.

The file must be a sequential dataset. It is forced to a logical record length of 133 and a record format of FBA. Any valid block size is acceptable. If you specify an invalid block size or no block size, 1330 is used.

SYSPRINT (Optional) A listing of each member as it is examined. If this file is omitted, no output is generated.

The file must be a sequential dataset. It is forced to a logical record length of 133 and a record format of FBA. Any valid block size is acceptable. If you specify an invalid block size or no block size, 1330 is used.

To review the updates before they are applied, omit the output DDNAME (for example, KLSPNLS) and ensure that DDNAME SYSPRINT is present.

KLSMSGS Output

Figure 45 shows messages that KLSRNMT generates during the rename process.

```
RENAME ASSISTANCE UTILITY - RENAME MESSAGES

KLSRN004 PROCESSING OPTIONS IN EFFECT: EXCLUDE, UDATA

KLSRN010 EXCLUDE MEMBER LIST:
     $CONVERT
     $HGATES
     $INITNAM
       .
       .
       .
     VTPINTB
     VTPINVLG
     VTPINVPO

KLSRN009 PROCESSING TIM      IN USER02.USER.VTPPLIB
KLSRN015 LINES MODIFIED=   1  ADDED=   0  FLAGGED=   0
KLSRN009 PROCESSING TIMBRWS  IN USER02.USER.VTPPLIB
KLSRN015 LINES MODIFIED=   4  ADDED=   0  FLAGGED=   0
  .
  .
  .
KLSRN009 PROCESSING TIMZ     IN USER02.USER.VTPPLIB
KLSRN015 LINES MODIFIED=   3  ADDED=   0  FLAGGED=   0
KLSRN012 PROCESSING ENDED

KLSRN007 DSNAME=USER02.USER.VTPPLIB UNIQUE= 56 PROCESSED= 40 DUPLICATES= 0

KLSRN008 TOTAL UNIQUE MEMBERS= 56 IN DDNAME VTPPLIB PROCESSED= 40
```

Figure 45. Sample KLSMSGS Output

The messages reflect the following steps:

1. KLSRNMT determines the processing options that are in effect.
2. KLSRNMT examines each dialog member.
3. KLSRNMT displays the number of members examined and the number processed.

Sample SYSPRINT Output

KLSRNMT generates the SYSPRINT output shown in Figure 46.

```
RENAME ASSISTANCE UTILITY - PNLS STATEMENTS
KLSRN014 MEMBER OESJ12   IN USER02.USER.VTPPLIB

LINE MOD  TEXT                                                    T
---- ---  ---------------------------------------------------------- -
   .
   .
   9 M    )copy KLSSDCL
   .
   .
  23 M         dialog KLSCMD
   .
   .

KLSRN015 LINES MODIFIED= 22 ADDED=   0  FLAGGED=   1
```

Figure 46. SYSPRINT Contents

Only changed lines are printed. The first line identifies the PDS member name and the name of the dataset from which it is being read. The output summarizes the changes made as follows:

LINE Identifies the relative line number in the output member.

MOD Identifies how the line was changed.

- An M indicates the line was changed to reflect a renamed dialog.
- An A indicates the line was added. This means that the previous line was expanded beyond column 80 and was split by the rename utility. You may wish to reformat the lines affected for aesthetic or stylistic reasons. Message KLSRN105 is also written to DDNAME KLSMSGS to indicate that this has happened.
- An M followed by an A indicates the line was added and modified.
- An F indicates the line is flagged and *requires* modification. An F indicates that this line was expanded beyond column 80 but could not be split by the rename utility. You must reformat the lines affected. Message KLSRN107 is also written to DDNAME KLSMSGS to indicate that this has happened.

  Note: The rename utility does not delete lines.

TEXT Shows the text line.

T Identifies a truncation flag. If the converted line is too long to be printed, it is truncated *on the listing only*, and a plus sign (+) appears in this column. The full text line is written to the output library.

The last line reports the total number of lines modified, added, and flagged during the rename process. If the dialog does not require changes, it does not appear in SYSPRINT.

Return Codes

0 Processing is successful. All requested members are renamed.

4 Reserved for future use.

8 An expected DDNAME is missing:

- DDNAME KLSMSGS is missing
- At least one of VTPCLIB, VTPILIB, or VTPPLIB libraries must be present

12 One or more invalid or conflicting parameters were specified on the JCL EXEC PARM statement.

16 The DDNAME indicated in message KLSRN011 has an inappropriate LRECL or RECFM.

20 The PDS directory of the DDNAME indicated in message KLSRN011 could not be updated, probably because no directory blocks are available.

Appendix E. DDNAME Changes in Version 147

CL/SUPERSESSION elements and datasets have been renamed to provide single-CSI-zone capability. The following table lists the name changes of the installation libraries for Version 147.

Table 14. runtime DDNAMEs in the Started Task JCL

Previous Name	Version 147 Name	Description
STEPLIB	STEPLIB	DDNAME for product load library
SYSIN	TLVSYSIN	DDNAME for initialization parameter list
VTPCLIB	TLVCMDS	DDNAME for product command library
VTPILIB	TLVPARM	DDNAME for product initialization library
VTPLOAD	TLVLOAD	DDNAME for product load library
VTPLOG	TLVLOG	DDNAME for product log output
VTPPLIB	TLVPNLS	DDNAME for product panel library
VTPSNAP	TLVSNAP	DDNAME for product formatted (SNAP) dump output
ABNLIGNR (V145 & V146 only)	ABNLIGNR	DDNAME for turning off ABEND-AID™
HPOPEREN (V145 only)	TLVH0ENU	DDNAME for product help library

Appendix F. Cross Reference Table - KLSTBLS

The following table lists the old names (before Version 147) and the corresponding new names of all data elements in CL/SUPERSESSION Version 147.

Table 15 (Page 1 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)

Old Name	New Name	Old Name	New Name	Old Name	New Name	Old Name	New Name
$$$INDEX	KLS$NDX	$$ALLERR	$$ALLERR	$$NLS	KLS$$NLS	$$PDSERR	$$PDSERR
$$README	KLS$RME	$$SAMERR	$$SAMERR	$$TDBERR	$$TDBERR	$ABAR	$ABAR
$ABAROFF	$ABAROFF	$ABARON	$ABARON	$APLSTS	KLGCAPLT	$APPLS	KLGCAPLS
$BCGRPS	KLGCBCGP	$BEEP	$BEEP	$CKEY	$CKEY	$CMD	KLSCMD
$CMDHELP	$CMDHELP	$CMDSET	$CMDSET	$CMDSTAT	$CMDSTAT	$CMDSTS	$CMDSTS
$CONVERT	KLGCTBCV	$CPYRGHT	KLS$CPR	$DATE	$DATE	$DUPSTR	$DUPSTR
$EMPHOFF	$EMPHOFF	$EMPHON	$EMPHON	$FKEYFND	$FKEYFND	$FKEYS	KLSFKEYS
$FKEYS2	KLSFKEYX	$GETCSR	$GETCSR	$GETKEY	$GETKEY	$GETKEY2	$GETKEY2
$HELP	KLSSHELP	$HELPE	KLSSHLPE	$HELPEN	KLSSHLP1	$HELPFC	KLSSHLP4
$HELPFR	KLSSHLP2	$HELPGR	KLSSHLP3	$HELPMSG	$HELPMSG	$HELPP	KLSSHLPP
$HELPTXT	$HELPTXT	$HELP2	$HELP2	$HGATES	KLGCHGGW	$IMSDEFS	KLICIDEF
$INDEX	$INDEX	$INDEXF	$INDEXF	$INDEXFH	$INDEXFH	$INDEXH	$INDEXH
$INDEXM	$INDEXM	$INDEX2	$INDEX2	$INITNAM	KLSINNAM	$MSGAREA	KLSMSGAR
$MSGBLD	KLSMSGBL	$MSGCEN	KLSMSGC1	$MSGCFR	KLSMSGC2	$MSGCGR	KLSMSGC3
$MSGCOLR	KLSMSGCO	$MSGDEN	KLSMSGD1	$MSGDFR	KLSMSGD2	$MSGDGR	KLSMSGD3
$MSGEN	KLSSMSG1	$MSGFR	KLSSMSG2	$MSGGEN	KLSMSGG1	$MSGGFR	KLSMSGG2
$MSGGGR	KLSMSGG3	$MSGGR	KLSSMSG3	$MSGLEN	KLSMSGL1	$MSGLFR	KLSMSGL2
$MSGLGR	KLSMSGL3	$MSGSEN	KLSMSGS1	$MSGSET	KLSMSGST	$MSGSFR	KLSMSGS2
$MSGSGR	KLSMSGS3	$MSGTEN	KLSMSGT1	$MSGTFR	KLSMSGT2	$MSGTGR	KLSMSGT3
$MTOS	KLICIMTO	$OPSTART	KLSOPSTR	$PANID	KLSPANID	$POSCSR	$POSCSR
$STARTIV	KLSSTRIV	$STARTUP	KLSSTART	$STVGW	KLGCSTGW	$STVGWIV	KLGCAPLO
$STVSS	KLSCINSS	$STVSSIV	KLSCAPLO	$TIME	$TIME	$TKEY	$TKEY
$VKEYS	KLSVKEYS	$VSMS	KLS$VSMS	$VSSAPPL	KLSCAPLS	$WHERE	$WHERE
$WHO	$WHO	$WHOAMI	$WHOAMI	#ADB	KLG#ADB	#ALB	KLG#ALB
#APB	KLG#APB	#ASB	KLG#ASB	#BGB	KLG#BGB	#DEQHSB	KLG#DQHS
#HCB	KLG#HCB	#HDB	KLG#HDB	#HSB	KLG#HSB	#HVT	KLG#HVT
#IDB	KLI#IDB	#IOB	KLI#IOB	#IRB	KLI#IRB	#VGWDR	KLG#DR
#VGWENV	KLG#ENV	#VGWEPL	KLG#GEPL	#VGWFASB	KLG#FASB	#VGWLALB	KLG#LALB
#VGWMSG	KLG#MSG	@ATTRS	@ATTRS	@BOTTOM	@BOTTOM	@KEYS1	@KEYS1
@KEYS2	@KEYS2	@MODELS	@MODELS	@MSG1R	KLSMSG1R	@MSG1W	KLSMSG1W
@MSG1Y	KLSMSG1Y	@MSG2R	KLSMSG2R	@MSG2W	KLSMSG2W	@MSG2Y	KLSMSG2Y
@MSG3R	KLSMSG3R	@MSG3W	KLSMSG3W	@MSG3Y	KLSMSG3Y	@MSG4R	KLSMSG4R
@MSG4W	KLSMSG4W	@MSG4Y	KLSMSG4Y	@MSG5R	KLSMSG5R	@MSG5W	KLSMSG5W
@MSG5Y	KLSMSG5Y	@MSG6R	KLSMSG6R	@MSG6W	KLSMSG6W	@MSG6Y	KLSMSG6Y
@MSG7R	KLSMSG7R	@MSG7W	KLSMSG7W	@MSG7Y	KLSMSG7Y	@MSG8R	KLSMSG8R
@MSG8W	KLSMSG8W	@MSG8Y	KLSMSG8Y	ACBUILD	KLSCINQB	ACEUAPAN	ACEUAPAN
ACEU115	KLS5ACEU	ACF2LID	KLSACF2L	ACINQR	KLSCINQR	ACINQRH	KLSCINQH
ACTBSESS	KLSACTBS	ACTBWIMS	KLSACTBW	ACTB115	KLS5ACTB	ACTFSESS	KLSACTFS
ACTFWIMS	KLSACTFW	ACTF115	KLS5ACTF	APPLST1	KLGIAPL1	APPLST2	KLGIAPL2

Table 15 (Page 2 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
ATTNTION	KLSATTN	CALCANS	KLSALCAN	CALCE	KLSALCE	CALCEDT	KLSALCED
CALCEN	KLSALC1	CALCENH	KLSALCH1	CALCHEX	KLSALCHX	CALCP	KLSALCP
CALCQUE	KLSALCQU	CALCSTK	KLSALCST	CICSAUTO	KLSZATDX	CICSTCT	KLSCTCT
CICSTERM	KLSCICTD	COMPRESS	KLSCOMPR	COMP115	KLS5COMP	CONVDLTA	KLSCVDLT
CONVERR	KLSCVERR	CONVERT	KLSCVERT	CONVLOG	KLSCVLOG	CONVLOGO	KLSCVLGO
CONVMAST	KLSCVMST	CONVMSG	KLSCVMSG	CONVPROF	KLSCVPRF	CONVSSFL	KLSCVSFL
CONVSTAT	KLSCVSTA	CONVSTRT	KLSCVTRT	CONVVERS	KLSCVVER	CONVWIP	KLSCVWIP
CONV115	KLSCV115	CUTPASTE	KLSCUTPA	DELSESS	KLSDELSE	DEL115	KLS5DELS
DESTEXIT	KLGXDEST	ENAPDDEN	ENAPDDEN	ENAPLDEN	ENAPLDEN	ENAPLLEN	ENAPLLEN
ENASEN	ENASEN	ENAUTOEN	ENAUTOEN	ENBCGPEN	ENBCGPEN	ENCLI	ENCLI
ENCLOSEN	ENCLOSEN	ENCLSTEN	ENCLSTEN	ENCMD	ENCMD	ENDDEDEN	ENDDEDEN
ENDIALEN	ENDIALEN	ENDIS	ENDIS	ENDISPEN	ENDISPEN	ENDVTIME	ENDVTIME
ENECHOEN	ENECHOEN	ENEMULEN	ENEMULEN	ENEVRYEN	ENEVRYEN	ENFLUSEN	ENFLUSEN
ENFORWEN	ENFORWEN	ENGATEEN	ENGATEEN	ENGTFEN	ENGTFEN	ENGTO	ENGTO
ENGTRCEN	ENGTRCEN	ENIMBCEN	ENIMBCEN	ENIMSEN	ENIMSEN	ENLINKEN	ENLINKEN
ENLOGON	KLVLOGON	ENMONIEN	ENMONIEN	ENMTOEN	ENMTOEN	ENMVSEN	ENMVSEN
ENNAMXEN	ENNAMXEN	ENNODEEN	ENNODEEN	ENNTDEN	ENNTDEN	ENOPEREN	ENOPEREN
ENOPT	ENOPT	ENPRMTEN	ENPRMTEN	ENPROFEN	ENPROFEN	ENREFREN	ENREFREN
ENRTI	ENRTI	ENSCRLEN	ENSCRLEN	ENSENDEN	ENSENDEN	ENSHOWEN	ENSHOWEN
ENSHUTEN	ENSHUTEN	ENSNAEN	ENSNAEN	ENSTATEN	ENSTATEN	ENSTOREN	ENSTOREN
ENTIMEEN	ENTIMEEN	ENTRA	ENTRA	ENTRACEN	ENTRACEN	ENVCANEN	ENVCANEN
ENVEW	ENVEW	ENVEWBEN	ENVEWBEN	ENVEWCEN	ENVEWCEN	ENVEWFEN	ENVEWFEN
ENVEWLEN	ENVEWLEN	ENVEWNEN	ENVEWNEN	ENVEWPEN	ENVEWPEN	ENVEWTEN	ENVEWTEN
ENVFRCEN	ENVFRCEN	ENVLOGEN	ENVLOGEN	ENVPOEN	ENVPOEN	ENVPRTEN	ENVPRTEN
ENVSHOEN	ENVSHOEN	ENVSMDEN	ENVSMDEN	ENVSMEEN	ENVSMEEN	ENVSMFEN	ENVSMFEN
ENVSMLEN	ENVSMLEN	ENVSSTEN	ENVSSTEN	ENXAPP	ENXAPP	ENXCMD	ENXCMD
ENXFIL	ENXFIL	ENXMSG	ENXMSG	ENXSES	ENXSES	ENXTRM	ENXTRM
ENXUSR	ENXUSR	ERASEINP	KLSERAIN	ERAS115	KLS5ERAI	EXITRTM	KLSJGRM
EXITSAMP	KLGXELEM	FXFER	KLSFXFER	GATEWAY	KLGATEWY	GATEWAY1	KLGICFG1
GATEWAY2	KLGICFG2	GATEWAY3	KLGICFG3	GATE1115	KLGAT115	GATE115	KLGATE15
GATE2115	KLGAT215	GATE3115	KLGAT315	GCMD1	KLGCMD1	GCMD1E	KLGCMD1E
GCMD1EN	KLGCMD11	GCMD1FC	KLGCMD14	GCMD1FR	KLGCMD12	GCMD1GR	KLGCMD13
GCMD1P	KLGCMD1P	GDIMS	KLIDIMS	GDIMSE	KLIDIMSE	GDIMSEN	KLIDIMS1
GDIMSENH	KLI001H1	GDIMSFC	KLIDIMS4	GDIMSFCH	KLI001H4	GDIMSFR	KLIDIMS2
GDIMSFRH	KLI001H2	GDIMSGR	KLIDIMS3	GDIMSGRH	KLI001H3	GDIMSP	KLIDIMSP
GDRES	KLGDRES	GETLTERM	KLSLTASS	GFACTENH	KLG002H1	GFACTFCH	KLG002H4
GFACTFRH	KLG002H2	GFACTGRH	KLG002H3	GFGRPENH	KLG003H1	GFGRPFCH	KLG003H4
GFGRPFRH	KLG003H2	GFGRPGRH	KLG003H3	GFNW1ENH	KLG004H1	GFNW1FCH	KLG004H4
GFNW1FRH	KLG004H2	GFNW1GRH	KLG004H3	GFNW2ENH	KLG005H1	GFNW2FCH	KLG005H4
GFNW2FRH	KLG005H2	GFNW2GRH	KLG005H3	GFPROENH	KLG006H1	GFPROFCH	KLG006H4
GFPROFRH	KLG006H2	GFPROGRH	KLG006H3	GFPSWENH	KLG007H1	GFPSWFCH	KLG007H4
GFPSWFRH	KLG007H2	GFPSWGRH	KLG007H3	GFUSRENH	KLG008H1	GFUSRFCH	KLG008H4
GFUSRFRH	KLG008H2	GFUSRGRH	KLG008H3	GHIMSENH	KLI009H1	GHIMSFCH	KLI009H4
GHIMSFRH	KLI009H2	GHIMSGRH	KLI009H3	GHLP1ENH	KLG010H1	GHLP1FCH	KLG010H4
GHLP1FRH	KLG010H2	GHLP1GRH	KLG010H3	GHVTPENH	KLG011H1	GHVTPFCH	KLG011H4
GHVTPFRH	KLG011H2	GHVTPGRH	KLG011H3	GLGON	KLGLGON	GLGONE	KLGLGONE
GLGONEN	KLGLGON1	GLGONENH	KLG013H1	GLGONFC	KLGLGON4	GLGONFCH	KLG013H4
GLGONFR	KLGLGON2	GLGONFRH	KLG013H2	GLGONGR	KLGLGON3	GLGONGRH	KLG013H3
GLGONP	KLGLGONP	GLGO2ENH	KLG012H1	GLGO2FCH	KLG012H4	GLGO2FRH	KLG012H2

Table 15 (Page 3 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)

Old Name	New Name	Old Name	New Name	Old Name	New Name	Old Name	New Name
GLGO2GRH	KLG012H3	GLIMS	KLILIMS	GMSG1E	KLGMSG1E	GMSG1EN	KLGMSG11
GMSG1ENH	KLG014H1	GMSG1FC	KLGMSG14	GMSG1FCH	KLG014H4	GMSG1FR	KLGMSG12
GMSG1FRH	KLG014H2	GMSG1GR	KLGMSG13	GMSG1GRH	KLG014H3	GMSG1P	KLGMSG1P
GMSG2	KLGMSG2B	GMSG2E	KLGMSG2E	GMSG2EN	KLGMSG21	GMSG2ENH	KLG015H1
GMSG2FC	KLGMSG24	GMSG2FCH	KLG015H4	GMSG2FR	KLGMSG22	GMSG2FRH	KLG015H2
GMSG2GR	KLGMSG23	GMSG2GRH	KLG015H3	GMSG2P	KLGMSG2P	GNPWD	KLGNPWD
GNPWDE	KLGNPWDE	GNPWDEN	KLGNPWD1	GNPWDENH	KLG016H1	GNPWDFC	KLGNPWD4
GNPWDFCH	KLG016H4	GNPWDFR	KLGNPWD2	GNPWDFRH	KLG016H2	GNPWDGR	KLGNPWD3
GNPWDGRH	KLG016H3	GNPWDP	KLGNPWDP	GNTRY	KLGNTRY	GOPTS	KLGOPTS
GOPTSE	KLGOPTSE	GOPTSEN	KLGOPTS1	GOPTSENH	KLG017H1	GOPTSENM	KLGOPTM1
GOPTSFC	KLGOPTS4	GOPTSFCH	KLG017H4	GOPTSFCM	KLGOPTM4	GOPTSFR	KLGOPTS2
GOPTSFRH	KLG017H2	GOPTSFRM	KLGOPTM2	GOPTSGR	KLGOPTS3	GOPTSGRH	KLG017H3
GOPTSGRM	KLGOPTM3	GOPTSM	KLGOPTSM	GOPTSP	KLGOPTSP	GOTOSESS	KLSGOTO
GOTO115	KLGO115	GRPASGN	KLGRPASN	GSSHG	KLGSSHG	GSYNC	KLGSYNC
GVACHEN	KLGVACH1	GVACHFC	KLGVACH4	GVACHFR	KLGVACH2	GVACHGR	KLGVACH3
GVACT	KLGVACT	GVACTE	KLGVACTE	GVACTEN	KLGVACT1	GVACTENH	KLG020H1
GVACTFC	KLGVACT4	GVACTFCH	KLG020H4	GVACTFR	KLGVACT2	GVACTFRH	KLG020H2
GVACTGR	KLGVACT3	GVACTGRH	KLG020H3	GVACTP	KLGVACTP	GVARS	KLGVARS
GVSELA	KLGVSELA	GWIBCE	KLGWIBCE	GWIBCEN	KLGWIBC1	GWIBCENH	KLG018H1
GWIBCFC	KLGWIBC4	GWIBCFCH	KLG018H4	GWIBCFR	KLGWIBC2	GWIBCFRH	KLG018H2
GWIBCGR	KLGWIBC3	GWIBCGRH	KLG018H3	GWIBCP	KLGWIBCP	HELPHELP	KLSHHELP
HELPIMS	KLIHIMS	HELPI115	KLIH115	HELPNEXT	KLSHNEXT	HELPN115	KLSHN115
HELPPAN	KLSHPAN	HELPP115	KLSHPP15	HELPVTP	KLSHVTP	HELPV115	KLSHV115
HELP01	KLSH1HLP	HELP02	KLSH2HLP	HELP03	KLSH3HLP	HELP1115	KLSH1115
HELP115	KLSHP115	HELP2115	KLSH2115	HELP3115	KLSH3115	HGWDEST	KLGWDEST
HGWD115	KLGWD115	HGWLTERM	KLIHLTRM	HGWL115	KLIHL115	HGWNPSWD	KLGWNPSW
HGWN115	KLGWN115	HGWPSWD	KLGWPSWD	HGWP115	KLGWP115	HGWUSER	KLGWUSER
HGWU115	KLGWU115	IMBRCST	KLGBRCST	IMBR115	KLGBR115	IMSGEN	KLGIMSGN
IMSTERM	KLSIMSTD	LGDST	KLGDST	LGGW2	KLGGW2	LGMAINT	KLGMAINT
LGVAL	KLGVAL	LMINPEN	KLSINPEN	LOCK	KLSLOCK	LOCK115	KLS5LOCK
LOGONCIC	KLSONCIC	LOGONCUA	KLSONCUA	LOGONDLG	KLSONDLG	LOGONOM	KLSONOM
LOGONTSO	KLSONTSO	LOGONVM	KLSONVM	LOGONVTP	KLSONENG	LOG15CIC	KLSO5CIC
LOG15TSO	KLSO5TSO	LOG15VM	KLSO5VM	LOG15VTP	KLSO5VTP	LU1	KLGLU1SO
LU1NPSWD	KLGLU1PW	MESSAGE	KLSMSG	MESSAGEP	KLSMSGP	NAMPURGE	KLSNMPRG
NEWSPAN	KLSNWPAN	NEWS1L1	KLSNW1L1	NEWS2L1	KLSNW2L1	NEWS3L1	KLSNW3L1
NEWS3L2	KLSNW3L2	NEXTSESS	KLSNEXTS	NEXTWIND	KLSNEXTW	NEXT115	KLS5NEXT
NLSCONVT	KLSCONVT	NLSDIAE	KLSDIAE	NLSREXX	KLSREXX	NLS037E	KLS037E
OPSTART	KLSOPSTR	OVTERM	KLSOVTD	PA2	KLSPA2	PA2115	KLSA2115
PCATTRS	KLSZPATT	PCDCL	KLSZPDCL	PCERROR	KLSZPERR	PCINV00	KLSZPINA
PCINV01	KLSZPINB	PCINV02	KLSZPINC	PCINV03	KLSZPIND	PCINV04	KLSZPINE
PCLOGO	KLSZPLGO	PCLOGON	KLSZPLOG	PCTRACK	KLSZPTRK	POPHELP1	KLSPOP1H
POPHELP2	KLSPOP2H	POPHELP3	KLSPOP3H	POPHELP4	KLSPOP4H	PREVSESS	KLSPREVS
PREV115	KLS5PREV	PRINT	KLSPRINT	PRIN115	KLS5PRNT	QREPLY	QREPLY
QUIT	KLSQUIT	QUIT115	KLS5QUIT	REC$$REC	KLSZ$REC	RECADH1	KLSZADH1
RECADH2	KLSZADH2	RECADH3	KLSZADH3	RECADM	KLSZACM	RECADMIN	KLSZADMN
RECATTR	KLSZATTR	RECBA	KLSZBAA	RECBHA	KLSZBHAA	RECBH1	KLSZBHA
RECBH2	KLSZBHB	RECBH3	KLSZBHC	RECBH3A	KLSZBH3A	RECBH4	KLSZBHD
RECBH5	KLSZBHE	RECBH6	KLSZBHF	RECBH7	KLSZBHG	RECBH8	KLSZBHH
RECBH9	KLSZBHI	RECBPID	KLSZBPID	RECBPIDH	KLSZPIDH	RECBREAK	KLSZBRAK

Table 15 (Page 4 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
RECB1	KLSZBA	RECB2	KLSZBB	RECB3	KLSZBC	RECB3SW1	KLSZBDSW
RECB4	KLSZBD	RECB5	KLSZBE	RECB6	KLSZBF	RECB7	KLSZBG
RECB8	KLSZBH	RECB9	KLSZBI	RECC	KLSZC	RECCC	KLSZCC
RECCD	KLSZCD	RECCF	KLSZCF	RECCH	KLSZCH	RECCI	KLSZCI
RECCIA	KLSZCIA	RECCINK	KLSZCINK	RECCINS	KLSZCINS	RECCI8	KLSZCI8
RECCK	KLSZCK	RECCM	KLSZCM	RECCMC	KLSZCMC	RECCMD	KLSZCMD
RECCMF	KLSZCMF	RECCMI	KLSZCMI	RECCMK	KLSZCMK	RECCMM	KLSZCMM
RECCMP	KLSZCMP	RECCMS	KLSZCMS	RECCMT	KLSZCMT	RECCMU	KLSZCMU
RECCMW	KLSZCMW	RECCOPY	KLSZCOPY	RECCOPYH	KLSZCOPH	RECCP	KLSZCP
RECCS	KLSZCS	RECCT	KLSZCT	RECCU	KLSZCU	RECCW	KLSZCW
RECD	KLSZD	RECDEC	KLSZDEC	RECDSPLY	KLSZDSPL	RECDUERH	KLSZUERH
RECDUERR	KLSZUERR	RECERR	KLSZERR	RECERROR	KLSZEROR	RECEXIT	KLSZEXIT
RECFLDSV	KLSZLDSV	RECFWRIT	KLSZWRIT	RECGLPNL	KLSZLPNL	RECGLPN2	KLSZLP2L
RECGLWTE	KLSZLWTE	RECGLWTH	KLSZLWTH	RECH	KLSZH	RECHC	KLSZHC
RECHD	KLSZHD	RECHL	KLSZHL	RECHMARK	KLSZHMRK	RECHPRE	KLSZHPRE
RECHS	KLSZHS	RECINUSE	KLSZNUSE	RECINUSS	KLSZNUSS	RECL	KLSZL
RECLC	KLSZLC	RECLD	KLSZLD	RECLF	KLSZLF	RECLI	KLSZLI
RECLINTD	KLSZLIND	RECLINTH	KLSZLINH	RECLK	KLSZLK	RECLM	KLSZLM
RECLP	KLSZLP	RECLS	KLSZLS	RECLT	KLSZLT	RECLTYP	KLSZLTYP
RECLTYP2	KLSZLT2P	RECLU	KLSZLU	RECLUCHK	KLSZLUCK	RECLW	KLSZLW
RECMASTR	KLSZMSTR	RECNOREC	KLSZNREC	RECNUMCK	KLSZUMCK	RECOFF	KLSZOFF
RECORD	KLSZRD	RECORDCO	KLSZRDCO	RECORDGO	KLSZRDGO	RECORDNO	KLSZRDNO
RECORDOH	KLSZRDOH	RECORDON	KLSZRDON	RECORDTE	KLSZRDTE	RECORDTL	KLSZRDTL
RECPARM	KLSZPARM	RECPARM1	KLSZPA1M	RECPCAA1	KLSZPCAA	RECPIDW	KLSZPIDW
RECPROF	KLSZPROF	RECPTERM	KLSZTERM	RECRECF	KLSZRECF	RECRECUR	KLSZRECU
RECS	KLSZS	RECSBLNK	KLSZBLNK	RECSC	KLSZSC	RECSD	KLSZSD
RECSF	KLSZSF	RECSI	KLSZSI	RECSK	KLSZSK	RECSM	KLSZSM
RECSP	KLSZSP	RECSS	KLSZSS	RECST	KLSZST	RECSTRIG	KLSZTRIG
RECSTRIP	KLSZTRIP	RECSU	KLSZSU	RECSU1	KLSZ1SU	RECSW	KLSZSW
RECSYNC	KLSZSYNC	RECSYNCH	KLSZSYCH	RECTABCH	KLSZTABC	RECTABSV	KLSZTABS
RECTBADD	KLSZTADD	RECTBDEL	KLSZTDEL	RECTBERR	KLSZTERR	RECTBEXI	KLSZTEXI
RECTBGET	KLSZTGET	RECTBLCL	KLSZTLCL	RECTBLER	KLSZTLER	RECTBLOP	KLSZTLOP
RECTBOER	KLSZTOER	RECTBPUT	KLSZTPUT	RECTBSKP	KLSZTSKP	RECTEMPE	KLSZTEMP
RECTOERR	KLSZTERO	RECUPDMI	KLSZUPDM	RECUTERM	KLSZUTRM	RECUTRMH	KLSZUTRH
RECWAIT	KLSZWAIT	RECWARN	KLSZWARN	RECWARNH	KLSZWARH	SAABRENH	KLS019H1
SAABRFCH	KLS019H4	SAABRFRH	KLS019H2	SAABRGRH	KLS019H3	SAACTE	KLSAACTE
SAACTEN	KLSAACT1	SAACTENH	KLS020H1	SAACTFC	KLSAACT4	SAACTFCH	KLS020H4
SAACTFR	KLSAACT2	SAACTFRH	KLS020H2	SAACTGR	KLSAACT3	SAACTGRH	KLS020H3
SAACTP	KLSAACTP	SAADDENH	KLS022H1	SAADDFCH	KLS022H4	SAADDFRH	KLS022H2
SAADDGRH	KLS022H3	SAADLENH	KLS023H1	SAADLFCH	KLS023H4	SAADLFRH	KLS023H2
SAADLGRH	KLS023H3	SAAD2ENH	KLS021H1	SAAD2FCH	KLS021H4	SAAD2FRH	KLS021H2
SAAD2GRH	KLS021H3	SAAF1ENH	KLS024H1	SAAF1FCH	KLS024H4	SAAF1FRH	KLS024H2
SAAF1GRH	KLS024H3	SAAF2ENH	KLS025H1	SAAF2FCH	KLS025H4	SAAF2FRH	KLS025H2
SAAF2GRH	KLS025H3	SABF1ENH	KLS026H1	SABF1FCH	KLS026H4	SABF1FRH	KLS026H2
SABF1GRH	KLS026H3	SABF2ENH	KLS027H1	SABF2FCH	KLS027H4	SABF2FRH	KLS027H2
SABF2GRH	KLS027H3	SABGRENH	KLS028H1	SABGRFCH	KLS028H4	SABGRFRH	KLS028H2
SABGRGRH	KLS028H3	SABL2ENH	KLS029H1	SABL2FCH	KLS029H4	SABL2FRH	KLS029H2
SABL2GRH	KLS029H3	SACHRENH	KLS030H1	SACHRFCH	KLS030H4	SACHRFRH	KLS030H2
SACHRGRH	KLS030H3	SACPYENH	KLS031H1	SACPYFCH	KLS031H4	SACPYFRH	KLS031H2

Table 15 (Page 5 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SACPYGRH	KLS031H3	SACTA	KLSACTA	SADADE	KLSADDDE	SADADEN	KLSADDD1
SADADENH	KLS032H1	SADADFC	KLSADDD4	SADADFCH	KLS032H4	SADADFR	KLSADDD2
SADADFRH	KLS032H2	SADADGR	KLSADDD3	SADADGRH	KLS032H3	SADADP	KLSADDDP
SADASE	KLSADASE	SADASEN	KLSADAS1	SADASENH	KLS033H1	SADASFC	KLSADAS4
SADASFCH	KLS033H4	SADASFR	KLSADAS2	SADASFRH	KLS033H2	SADASGR	KLSADAS3
SADASGRH	KLS033H3	SADASP	KLSADASP	SADATE	KLSADATE	SADATEN	KLSADAT1
SADATENH	KLS034H1	SADATFC	KLSADAT4	SADATFCH	KLS034H4	SADATFR	KLSADAT2
SADATFRH	KLS034H2	SADATGR	KLSADAT3	SADATGRH	KLS034H3	SADATP	KLSADATP
SADCME	KLSADCME	SADCMEN	KLSADCM1	SADCMENH	KLS036H1	SADCMFC	KLSADCM4
SADCMFCH	KLS036H4	SADCMFR	KLSADCM2	SADCMFRH	KLS036H2	SADCMGR	KLSADCM3
SADCMGRH	KLS036H3	SADCMP	KLSADCMP	SADELENH	KLS039H1	SADELFCH	KLS039H4
SADELFRH	KLS039H2	SADELGRH	KLS039H3	SADE2ENH	KLS038H1	SADE2FCH	KLS038H4
SADE2FRH	KLS038H2	SADE2GRH	KLS038H3	SADGL	KLSADGL	SADGLA	KLSADGLA
SADGLE	KLSADGLE	SADGLEN	KLSADGL1	SADGLENH	KLS040H1	SADGLFC	KLSADGL4
SADGLFCH	KLS040H4	SADGLFR	KLSADGL2	SADGLFRH	KLS040H2	SADGLGR	KLSADGL3
SADGLGRH	KLS040H3	SADGLP	KLSADGLP	SADLCFC	KLSADLC4	SADLCFR	KLSADLC2
SADMM	KLSADMM	SADMME	KLSADMME	SADMMEN	KLSADME1	SADMMENH	KLS041H1
SADMMENM	KLSADMM1	SADMMFC	KLSADME4	SADMMFCH	KLS041H4	SADMMFCM	KLSADMM4
SADMMFR	KLSADME2	SADMMFRH	KLS041H2	SADMMFRM	KLSADMM2	SADMMGR	KLSADME3
SADMMGRH	KLS041H3	SADMMGRM	KLSADMM3	SADMMM	KLSADMMM	SADMMP	KLSADMMP
SADPFE	KLSADPFE	SADPFEN	KLSADPF1	SADPFENH	KLS042H1	SADPFFC	KLSADPF4
SADPFFCH	KLS042H4	SADPFFR	KLSADPF2	SADPFFRH	KLS042H2	SADPFGR	KLSADPF3
SADPFGRH	KLS042H3	SADPFP	KLSADPFP	SADSCENH	KLS046H1	SADSCFCH	KLS046H4
SADSCFRH	KLS046H2	SADSCGRH	KLS046H3	SADSL	KLSADSL	SADSLA	KLSADSLA
SADSLE	KLSADSLE	SADSLEN	KLSADSL1	SADSLENH	KLS047H1	SADSLFC	KLSADSL4
SADSLFCH	KLS047H4	SADSLFR	KLSADSL2	SADSLFRH	KLS047H2	SADSLGR	KLSADSL3
SADSLGRH	KLS047H3	SADSLP	KLSADSLP	SADSP	KLSADSP	SADSPA	KLSADSPA
SADSPE	KLSADSPE	SADSPEN	KLSADSP1	SADSPENH	KLS048H1	SADSPFC	KLSADSP4
SADSPFCH	KLS048H4	SADSPFR	KLSADSP2	SADSPFRH	KLS048H2	SADSPGR	KLSADSP3
SADSPGRH	KLS048H3	SADSPP	KLSADSPP	SADSSE	KLSADSSE	SADSSEN	KLSADSS1
SADSSENH	KLS049H1	SADSSFC	KLSADSS4	SADSSFCH	KLS049H4	SADSSFR	KLSADSS2
SADSSFRH	KLS049H2	SADSSGR	KLSADSS3	SADSSGRH	KLS049H3	SADSSP	KLSADSSP
SADS1E	KLSADS1E	SADS1EN	KLSADS11	SADS1ENH	KLS043H1	SADS1FC	KLSADS14
SADS1FCH	KLS043H4	SADS1FR	KLSADS12	SADS1FRH	KLS043H2	SADS1GR	KLSADS13
SADS1GRH	KLS043H3	SADS1P	KLSADS1P	SADS2ENH	KLS044H1	SADS2FCH	KLS044H4
SADS2FRH	KLS044H2	SADS2GRH	KLS044H3	SADS3ENH	KLS045H1	SADS3FCH	KLS045H4
SADS3FRH	KLS045H2	SADS3GRH	KLS045H3	SADTL	KLSADTL	SADTLA	KLSADTLA
SADTLE	KLSADTLE	SADTLEN	KLSADTL1	SADTLENH	KLS053H1	SADTLFC	KLSADTL4
SADTLFCH	KLS053H4	SADTLFR	KLSADTL2	SADTLFRH	KLS053H2	SADTLGR	KLSADTL3
SADTLGRH	KLS053H3	SADTLP	KLSADTLP	SADTP	KLSADTP	SADTPA	KLSADTPA
SADTPE	KLSADTPE	SADTPEN	KLSADTP1	SADTPENH	KLS054H1	SADTPFC	KLSADTP4
SADTPFCH	KLS054H4	SADTPFR	KLSADTP2	SADTPFRH	KLS054H2	SADTPGR	KLSADTP3
SADTPGRH	KLS054H3	SADTPP	KLSADTPP	SADT1E	KLSADT1E	SADT1EN	KLSADT11
SADT1ENH	KLS050H1	SADT1FC	KLSADT14	SADT1FCH	KLS050H4	SADT1FR	KLSADT12
SADT1FRH	KLS050H2	SADT1GR	KLSADT13	SADT1GRH	KLS050H3	SADT1P	KLSADT1P
SADT2E	KLSADT2E	SADT2EN	KLSADT21	SADT2ENH	KLS051H1	SADT2FC	KLSADT24
SADT2FCH	KLS051H4	SADT2FR	KLSADT22	SADT2FRH	KLS051H2	SADT2GR	KLSADT23
SADT2GRH	KLS051H3	SADT2P	KLSADT2P	SADT3ENH	KLS052H1	SADT3FCH	KLS052H4
SADT3FRH	KLS052H2	SADT3GRH	KLS052H3	SADUN	KLSADUN	SADVSE	KLSADVSE

Table 15 (Page 6 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SADVSEN	KLSADVS1	SADVSENH	KLS055H1	SADVSFC	KLSADVS4	SADVSFCH	KLS055H4
SADVSFR	KLSADVS2	SADVSFRH	KLS055H2	SADVSGR	KLSADVS3	SADVSGRH	KLS055H3
SADVSP	KLSADVSP	SADWSE	KLSADWSE	SADWSEN	KLSADWS1	SADWSENH	KLS056H1
SADWSFC	KLSADWS4	SADWSFCH	KLS056H4	SADWSFR	KLSADWS2	SADWSFRH	KLS056H2
SADWSGR	KLSADWS3	SADWSGRH	KLS056H3	SADWSP	KLSADWSP	SAHLPENH	KLS057H1
SAHLPFCH	KLS057H4	SAHLPFRH	KLS057H2	SAHLPGRH	KLS057H3	SAINFENH	KLS058H1
SAINFFCH	KLS058H4	SAINFFRH	KLS058H2	SAINFGRH	KLS058H3	SALAENH	KLS059H1
SALAFCH	KLS059H4	SALAFRH	KLS059H2	SALAGRH	KLS059H3	SALCENH	KLS060H1
SALCFCH	KLS060H4	SALCFRH	KLS060H2	SALCGRH	KLS060H3	SALDENH	KLS061H1
SALDFCH	KLS061H4	SALDFRH	KLS061H2	SALDGRH	KLS061H3	SALIENH	KLS063H1
SALIFCH	KLS063H4	SALIFRH	KLS063H2	SALIGRH	KLS063H3	SALISENH	KLS064H1
SALISFCH	KLS064H4	SALISFRH	KLS064H2	SALISGRH	KLS064H3	SALI2ENH	KLS062H1
SALI2FCH	KLS062H4	SALI2FRH	KLS062H2	SALI2GRH	KLS062H3	SALLMENH	KLS065H1
SALLMFCH	KLS065H4	SALLMFRH	KLS065H2	SALLMGRH	KLS065H3	SALMAE	KLSALMAE
SALMAEN	KLSALMA1	SALMAENH	KLS066H1	SALMAFC	KLSALMA4	SALMAFCH	KLS066H4
SALMAFR	KLSALMA2	SALMAFRH	KLS066H2	SALMAGR	KLSALMA3	SALMAGRH	KLS066H3
SALMAP	KLSALMAP	SALMC	KLSALMC	SALMCE	KLSALMCE	SALMCEN	KLSALMC1
SALMCENH	KLS067H1	SALMCFC	KLSALMC4	SALMCFCH	KLS067H4	SALMCFR	KLSALMC2
SALMCFRH	KLS067H2	SALMCGR	KLSALMC3	SALMCGRH	KLS067H3	SALMCP	KLSALMCP
SALMD	KLSALMD	SALMDENH	KLS068H1	SALMDFCH	KLS068H4	SALMDFRH	KLS068H2
SALMDGRH	KLS068H3	SALMENH	KLS069H1	SALMFCH	KLS069H4	SALMFRH	KLS069H2
SALMGRH	KLS069H3	SALMIE	KLSALMIE	SALMIEN	KLSALMI1	SALMIENH	KLS070H1
SALMIFC	KLSALMI4	SALMIFCH	KLS070H4	SALMIFR	KLSALMI2	SALMIFRH	KLS070H2
SALMIGR	KLSALMI3	SALMIGRH	KLS070H3	SALMIP	KLSALMIP	SALML	KLSALML
SALMLE	KLSALMLE	SALMLEN	KLSALML1	SALMLENH	KLS071H1	SALMLFC	KLSALML4
SALMLFCH	KLS071H4	SALMLFR	KLSALML2	SALMLFRH	KLS071H2	SALMLGR	KLSALML3
SALMLGRH	KLS071H3	SALMLP	KLSALMLP	SALMME	KLSALMME	SALMMEN	KLSALMM1
SALMMENH	KLS072H1	SALMMFC	KLSALMM4	SALMMFCH	KLS072H4	SALMMFR	KLSALMM2
SALMMFRH	KLS072H2	SALMMGR	KLSALMM3	SALMMGRH	KLS072H3	SALMMP	KLSALMMP
SALMTE	KLSALMTE	SALMTEN	KLSALMT1	SALMTENH	KLS073H1	SALMTFC	KLSALMT4
SALMTFCH	KLS073H4	SALMTFR	KLSALMT2	SALMTFRH	KLS073H2	SALMTGR	KLSALMT3
SALMTGRH	KLS073H3	SALMTP	KLSALMTP	SALPOENH	KLS074H1	SALPOFCH	KLS074H4
SALPOFRH	KLS074H2	SALPOGRH	KLS074H3	SALPSENH	KLS075H1	SALPSFCH	KLS075H4
SALPSFRH	KLS075H2	SALPSGRH	KLS075H3	SALSSENH	KLS076H1	SALSSFCH	KLS076H4
SALSSFRH	KLS076H2	SALSSGRH	KLS076H3	SALST	KLSALST	SALSTA	KLSALSTA
SALSTE	KLSALSTE	SALSTEN	KLSALST1	SALSTENH	KLS077H1	SALSTFC	KLSALST4
SALSTFCH	KLS077H4	SALSTFR	KLSALST2	SALSTFRH	KLS077H2	SALSTGR	KLSALST3
SALSTGRH	KLS077H3	SALSTP	KLSALSTP	SAMODENH	KLS079H1	SAMODFCH	KLS079H4
SAMODFRH	KLS079H2	SAMODGRH	KLS079H3	SAMO2ENH	KLS078H1	SAMO2FCH	KLS078H4
SAMO2FRH	KLS078H2	SAMO2GRH	KLS078H3	SANSNENH	KLS080H1	SANSNFCH	KLS080H4
SANSNFRH	KLS080H2	SANSNGRH	KLS080H3	SANSQENH	KLS081H1	SANSQFCH	KLS081H4
SANSQFRH	KLS081H2	SANSQGRH	KLS081H3	SAPRF	KLSAPRF	SAPRTENH	KLS082H1
SAPRTFCH	KLS082H4	SAPRTFRH	KLS082H2	SAPRTGRH	KLS082H3	SASDLENH	KLS083H1
SASDLFCH	KLS083H4	SASDLFRH	KLS083H2	SASDLGRH	KLS083H3	SASLAE	KLSASLAE
SASLAEN	KLSASLA1	SASLAENH	KLS084H1	SASLAFC	KLSASLA4	SASLAFCH	KLS084H4
SASLAFR	KLSASLA2	SASLAFRH	KLS084H2	SASLAGR	KLSASLA3	SASLAGRH	KLS084H3
SASLAP	KLSASLAP	SASLHENH	KLS085H1	SASLHFCH	KLS085H4	SASLHFRH	KLS085H2
SASLHGRH	KLS085H3	SASMDENH	KLS086H1	SASMDFCH	KLS086H4	SASMDFRH	KLS086H2
SASMDGRH	KLS086H3	SASNNENH	KLS087H1	SASNNFCH	KLS087H4	SASNNFRH	KLS087H2

Table 15 (Page 7 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SASNNGRH	KLS087H3	SASNQENH	KLS088H1	SASNQFCH	KLS088H4	SASNQFRH	KLS088H2
SASNQGRH	KLS088H3	SASPA	KLSASPA	SASPAE	KLSASPAE	SASPAEN	KLSASPA1
SASPAENH	KLS089H1	SASPAFC	KLSASPA4	SASPAFCH	KLS089H4	SASPAFR	KLSASPA2
SASPAFRH	KLS089H2	SASPAGR	KLSASPA3	SASPAGRH	KLS089H3	SASPAP	KLSASPAP
SASPRENH	KLS090H1	SASPRFCH	KLS090H4	SASPRFRH	KLS090H2	SASPRGRH	KLS090H3
SASTRENH	KLS091H1	SASTRFCH	KLS091H4	SASTRFRH	KLS091H2	SASTRGRH	KLS091H3
SATDLENH	KLS092H1	SATDLFCH	KLS092H4	SATDLFRH	KLS092H2	SATDLGRH	KLS092H3
SATLAE	KLSATLAE	SATLAEN	KLSATLA1	SATLAENH	KLS093H1	SATLAFC	KLSATLA4
SATLAFCH	KLS093H4	SATLAFR	KLSATLA2	SATLAFRH	KLS093H2	SATLAGR	KLSATLA3
SATLAGRH	KLS093H3	SATLAP	KLSATLAP	SATMDENH	KLS094H1	SATMDFCH	KLS094H4
SATMDFRH	KLS094H2	SATMDGRH	KLS094H3	SATPA	KLSATPA	SATPAE	KLSATPAE
SATPAEN	KLSATPA1	SATPAENH	KLS095H1	SATPAFC	KLSATPA4	SATPAFCH	KLS095H4
SATPAFR	KLSATPA2	SATPAFRH	KLS095H2	SATPAGR	KLSATPA3	SATPAGRH	KLS095H3
SATPAP	KLSATPAP	SATPRENH	KLS096H1	SATPRFCH	KLS096H4	SATPRFRH	KLS096H2
SATPRGRH	KLS096H3	SATRMENH	KLS097H1	SATRMFCH	KLS097H4	SATRMFRH	KLS097H2
SATRMGRH	KLS097H3	SATTR	KLSATTR	SATTREN	KLSATTR1	SATTRFC	KLSATTR4
SATTRFR	KLSATTR2	SATTRGR	KLSATTR3	SATTRS	KLSATTRS	SAUN2ENH	KLS098H1
SAUN2FCH	KLS098H4	SAUN2FRH	KLS098H2	SAUN2GRH	KLS098H3	SAXMTENH	KLS099H1
SAXMTFCH	KLS099H4	SAXMTFRH	KLS099H2	SAXMTGRH	KLS099H3	SBOTM	KLSBOTM
SBOTMEN	KLSBOTM1	SBOTMFC	KLSBOTM4	SBOTMFR	KLSBOTM2	SBOTMGR	KLSBOTM3
SBOTM2FC	KLSBOT24	SBOTM2FR	KLSBOT22	SBULLE	KLSBULLE	SBULLEN	KLSBULL1
SBULLFC	KLSBULL4	SBULLFR	KLSBULL2	SBULLGR	KLSBULL3	SBULLP	KLSBULLP
SCACT	KLSCACT	SCACTFC	KLSCACT4	SCACTFR	KLSCACT2	SCADDENH	KLS100H1
SCADDFCH	KLS100H4	SCADDFRH	KLS100H2	SCADDGRH	KLS100H3	SCBEPENH	KLS101H1
SCBEPFCH	KLS101H4	SCBEPFRH	KLS101H2	SCBEPGRH	KLS101H3	SCBGRENH	KLS102H1
SCBGRFCH	KLS102H4	SCBGRFRH	KLS102H2	SCBGRGRH	KLS102H3	SCBULENH	KLS103H1
SCBULFCH	KLS103H4	SCBULFRH	KLS103H2	SCBULGRH	KLS103H3	SCDATENH	KLS104H1
SCDATFCH	KLS104H4	SCDATFRH	KLS104H2	SCDATGRH	KLS104H3	SCDELENH	KLS105H1
SCDELFCH	KLS105H4	SCDELFRH	KLS105H2	SCDELGRH	KLS105H3	SCEXTENH	KLS106H1
SCEXTFCH	KLS106H4	SCEXTFRH	KLS106H2	SCEXTGRH	KLS106H3	SCFGRENH	KLS107H1
SCFGRFCH	KLS107H4	SCFGRFRH	KLS107H2	SCFGRGRH	KLS107H3	SCHELENH	KLS108H1
SCHELFCH	KLS108H4	SCHELFRH	KLS108H2	SCHELGRH	KLS108H3	SCLCKENH	KLS109H1
SCLCKFCH	KLS109H4	SCLCKFRH	KLS109H2	SCLCKGRH	KLS109H3	SCLOS	KLSCLOS
SCLSTENH	KLS110H1	SCLSTFCH	KLS110H4	SCLSTFRH	KLS110H2	SCLSTGRH	KLS110H3
SCMD	KLSCMD	SCMD1	KLSCMD1	SCMD1E	KLSCMD1E	SCMD1EN	KLSCMD11
SCMD1ENH	KLS111H1	SCMD1FC	KLSCMD14	SCMD1FCH	KLS111H4	SCMD1FR	KLSCMD12
SCMD1FRH	KLS111H2	SCMD1GR	KLSCMD13	SCMD1GRH	KLS111H3	SCMD1P	KLSCMD1P
SCNEWENH	KLS112H1	SCNEWFCH	KLS112H4	SCNEWFRH	KLS112H2	SCNEWGRH	KLS112H3
SCNTL	KLSCNTL	SCNTLLOG	KLSCNTLG	SCOMMON	KLSCOMMN	SCRESENH	KLS113H1
SCRESFCH	KLS113H4	SCRESFRH	KLS113H2	SCRESGRH	KLS113H3	SCRTVENH	KLS114H1
SCRTVFCH	KLS114H4	SCRTVFRH	KLS114H2	SCRTVGRH	KLS114H3	SCSTRENH	KLS115H1
SCSTRFCH	KLS115H4	SCSTRFRH	KLS115H2	SCSTRGRH	KLS115H3	SCTOPENH	KLS116H1
SCTOPFCH	KLS116H4	SCTOPFRH	KLS116H2	SCTOPGRH	KLS116H3	SCTRMENH	KLS117H1
SCTRMFCH	KLS117H4	SCTRMFRH	KLS117H2	SCTRMGRH	KLS117H3	SCUTCE	KLSCUTCE
SCUTCEN	KLSCUTC1	SCUTCFC	KLSCUTC4	SCUTCFR	KLSCUTC2	SCUTCGR	KLSCUTC3
SCUTCP	KLSCUTCP	SCUTIE	KLSCUTIE	SCUTIEN	KLSCUTI1	SCUTIENH	KLS118H1
SCUTIFC	KLSCUTI4	SCUTIFCH	KLS118H4	SCUTIFR	KLSCUTI2	SCUTIFRH	KLS118H2
SCUTIGR	KLSCUTI3	SCUTIGRH	KLS118H3	SCUTIP	KLSCUTIP	SCUTKE	KLSCUTKE
SCUTKEN	KLSCUTK1	SCUTKENH	KLS119H1	SCUTKFC	KLSCUTK4	SCUTKFCH	KLS119H4

Table 15 (Page 8 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SCUTKFR	KLSCUTK2	SCUTKFRH	KLS119H2	SCUTKGR	KLSCUTK3	SCUTKGRH	KLS119H3
SCUTKP	KLSCUTKP	SCUTME	KLSCUTME	SCUTMEN	KLSCUTM1	SCUTMENH	KLS120H1
SCUTMFC	KLSCUTM4	SCUTMFCH	KLS120H4	SCUTMFR	KLSCUTM2	SCUTMFRH	KLS120H2
SCUTMGR	KLSCUTM3	SCUTMGRH	KLS120H3	SCUTMP	KLSCUTMP	SCUTOE	KLSCUTOE
SCUTOEN	KLSCUTO1	SCUTOENH	KLS121H1	SCUTOFC	KLSCUTO4	SCUTOFCH	KLS121H4
SCUTOFR	KLSCUTO2	SCUTOFRH	KLS121H2	SCUTOGR	KLSCUTO3	SCUTOGRH	KLS121H3
SCUTOP	KLSCUTOP	SCUTP	KLSCUTP	SCUTS	KLSCUTS	SCUTVE	KLSCUTVE
SCUTVEN	KLSCUTV1	SCUTVENH	KLS122H1	SCUTVFC	KLSCUTV4	SCUTVFCH	KLS122H4
SCUTVFR	KLSCUTV2	SCUTVFRH	KLS122H2	SCUTVGR	KLSCUTV3	SCUTVGRH	KLS122H3
SCUTVP	KLSCUTVP	SCVPF	KLSCVPF	SCWHOENH	KLS123H1	SCWHOFCH	KLS123H4
SCWHOFRH	KLS123H2	SCWHOGRH	KLS123H3	SDATME	KLSDATME	SDATMEN	KLSDATM1
SDATMFC	KLSDATM4	SDATMFR	KLSDATM2	SDATMGR	KLSDATM3	SDATMP	KLSDATMP
SDCLS	KLSDCLS	SDEFA	KLSDEFA	SDELCE	KLSDELCE	SDELCEN	KLSDELC1
SDELCENH	KLS124H1	SDELCFC	KLSDELC4	SDELCFCH	KLS124H4	SDELCFR	KLSDELC2
SDELCFRH	KLS124H2	SDELCGR	KLSDELC3	SDELCGRH	KLS124H3	SDELCP	KLSDELCP
SDESCE	KLSDESCE	SDESCEN	KLSDESC1	SDESCFC	KLSDESC4	SDESCFR	KLSDESC2
SDESCGR	KLSDESC3	SDESCP	KLSDESCP	SETDEST	KLSETDST	SETRBM	KLSETRBM
SETRB115	KLSETRB5	SETRMODE	KLSETRMD	SETRM115	KLSETRM5	SEXIT	KLSEXIT
SEXITE	KLSEXITE	SEXITEN	KLSEXIT1	SEXITENH	KLS125H1	SEXITENM	KLSEXIM1
SEXITFC	KLSEXIT4	SEXITFCH	KLS125H4	SEXITFCM	KLSEXIM4	SEXITFR	KLSEXIT2
SEXITFRH	KLS125H2	SEXITFRM	KLSEXIM2	SEXITGR	KLSEXIT3	SEXITGRH	KLS125H3
SEXITGRM	KLSEXIM3	SEXITP	KLSEXITP	SFADAENH	KLS126H1	SFADAFCH	KLS126H4
SFADAFRH	KLS126H2	SFADAGRH	KLS126H3	SFADLENH	KLS127H1	SFADLFCH	KLS127H4
SFADLFRH	KLS127H2	SFADLGRH	KLS127H3	SFADMENH	KLS128H1	SFADMFCH	KLS128H4
SFADMFRH	KLS128H2	SFADMGRH	KLS128H3	SFALSENH	KLS129H1	SFALSFCH	KLS129H4
SFALSFRH	KLS129H2	SFALSGRH	KLS129H3	SFALTENH	KLS130H1	SFALTFCH	KLS130H4
SFALTFRH	KLS130H2	SFALTGRH	KLS130H3	SFAPLENH	KLS131H1	SFAPLFCH	KLS131H4
SFAPLFRH	KLS131H2	SFAPLGRH	KLS131H3	SFASSENH	KLS132H1	SFASSFCH	KLS132H4
SFASSFRH	KLS132H2	SFASSGRH	KLS132H3	SFAUCENH	KLS133H1	SFAUCFCH	KLS133H4
SFAUCFRH	KLS133H2	SFAUCGRH	KLS133H3	SFAUDENH	KLS134H1	SFAUDFCH	KLS134H4
SFAUDFRH	KLS134H2	SFAUDGRH	KLS134H3	SFAUMENH	KLS306H1	SFAUMFCH	KLS306H4
SFAUMFRH	KLS306H2	SFAUMGRH	KLS306H3	SFAUPENH	KLS135H1	SFAUPFCH	KLS135H4
SFAUPFRH	KLS135H2	SFAUPGRH	KLS135H3	SFAURENH	KLS136H1	SFAURFCH	KLS136H4
SFAURFRH	KLS136H2	SFAURGRH	KLS136H3	SFAUSENH	KLS137H1	SFAUSFCH	KLS137H4
SFAUSFRH	KLS137H2	SFAUSGRH	KLS137H3	SFAUTENH	KLS138H1	SFAUTFCH	KLS138H4
SFAUTFRH	KLS138H2	SFAUTGRH	KLS138H3	SFAUUENH	KLS139H1	SFAUUFCH	KLS139H4
SFAUUFRH	KLS139H2	SFAUUGRH	KLS139H3	SFBEPENH	KLS140H1	SFBEPFCH	KLS140H4
SFBEPFRH	KLS140H2	SFBEPGRH	KLS140H3	SFBYGENH	KLS141H1	SFBYGFCH	KLS141H4
SFBYGFRH	KLS141H2	SFBYGGRH	KLS141H3	SFCMPENH	KLS142H1	SFCMPFCH	KLS142H4
SFCMPFRH	KLS142H2	SFCMPGRH	KLS142H3	SFCNFENH	KLS143H1	SFCNFFCH	KLS143H4
SFCNFFRH	KLS143H2	SFCNFGRH	KLS143H3	SFCNMENH	KLS001H1	SFCNMFCH	KLS001H4
SFCNMFRH	KLS001H2	SFCNMGRH	KLS001H3	SFCPKENH	KLS002H1	SFCPKFCH	KLS002H4
SFCPKFRH	KLS002H2	SFCPKGRH	KLS002H3	SFCPNENH	KLS003H1	SFCPNFCH	KLS003H4
SFCPNFRH	KLS003H2	SFCPNGRH	KLS003H3	SFCPRENH	KLS144H1	SFCPRFCH	KLS144H4
SFCPRFRH	KLS144H2	SFCPRGRH	KLS144H3	SFCPTENH	KLS145H1	SFCPTFCH	KLS145H4
SFCPTFRH	KLS145H2	SFCPTGRH	KLS145H3	SFCRSENH	KLS146H1	SFCRSFCH	KLS146H4
SFCRSFRH	KLS146H2	SFCRSGRH	KLS146H3	SFCSTENH	KLS004H1	SFCSTFCH	KLS004H4
SFCSTFRH	KLS004H2	SFCSTGRH	KLS004H3	SFCUTENH	KLS005H1	SFCUTFCH	KLS005H4
SFCUTFRH	KLS005H2	SFCUTGRH	KLS005H3	SFDCPENH	KLS006H1	SFDCPFCH	KLS006H4

Table 15 (Page 9 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SFDCPFRH	KLS006H2	SFDCPGRH	KLS006H3	SFDELENH	KLS147H1	SFDELFCH	KLS147H4
SFDELFRH	KLS147H2	SFDELGRH	KLS147H3	SFDGPENH	KLS308H1	SFDGPFCH	KLS308H4
SFDGPFRH	KLS308H2	SFDGPGRH	KLS308H3	SFDSCENH	KLS148H1	SFDSCFCH	KLS148H4
SFDSCFRH	KLS148H2	SFDSCGRH	KLS148H3	SFEABENH	KLS149H1	SFEABFCH	KLS149H4
SFEABFRH	KLS149H2	SFEABGRH	KLS149H3	SFEAT	KLSFEAT	SFEATE	KLSFEATE
SFEATEN	KLSFEAT1	SFEATENH	KLS150H1	SFEATENM	KLSEATM1	SFEATFC	KLSFEAT4
SFEATFCH	KLS150H4	SFEATFCM	KLSEATM4	SFEATFR	KLSFEAT2	SFEATFRH	KLS150H2
SFEATFRM	KLSEATM2	SFEATGR	KLSFEAT3	SFEATGRH	KLS150H3	SFEATGRM	KLSEATM3
SFEATM	KLSFEATM	SFEATP	KLSFEATP	SFEDGENH	KLS309H1	SFEDGFCH	KLS309H4
SFEDGFRH	KLS309H2	SFEDGGRH	KLS309H3	SFETRE	KLSFETRE	SFETREN	KLSFETR1
SFETRENH	KLS307H1	SFETRFC	KLSFETR4	SFETRFCH	KLS307H4	SFETRFR	KLSFETR2
SFETRFRH	KLS307H2	SFETRGR	KLSFETR3	SFETRGRH	KLS307H3	SFETRP	KLSFETRP
SFFRMENH	KLS151H1	SFFRMFCH	KLS151H4	SFFRMFRH	KLS151H2	SFFRMGRH	KLS151H3
SFGNMENH	KLS152H1	SFGNMFCH	KLS152H4	SFGNMFRH	KLS152H2	SFGNMGRH	KLS152H3
SFGRNENH	KLS153H1	SFGRNFCH	KLS153H4	SFGRNFRH	KLS153H2	SFGRNGRH	KLS153H3
SFGRPENH	KLS154H1	SFGRPFCH	KLS154H4	SFGRPFRH	KLS154H2	SFGRPGRH	KLS154H3
SFHELENH	KLS155H1	SFHELFCH	KLS155H4	SFHELFRH	KLS155H2	SFHELGRH	KLS155H3
SFHSPENH	KLS156H1	SFHSPFCH	KLS156H4	SFHSPFRH	KLS156H2	SFHSPGRH	KLS156H3
SFIDCENH	KLS157H1	SFIDCFCH	KLS157H4	SFIDCFRH	KLS157H2	SFIDCGRH	KLS157H3
SFIDLENH	KLS158H1	SFIDLFCH	KLS158H4	SFIDLFRH	KLS158H2	SFIDLGRH	KLS158H3
SFINDENH	KLS159H1	SFINDFCH	KLS159H4	SFINDFRH	KLS159H2	SFINDGRH	KLS159H3
SFINMENH	KLS160H1	SFINMFCH	KLS160H4	SFINMFRH	KLS160H2	SFINMGRH	KLS160H3
SFINSENH	KLS161H1	SFINSFCH	KLS161H4	SFINSFRH	KLS161H2	SFINSGRH	KLS161H3
SFITYENH	KLS162H1	SFITYFCH	KLS162H4	SFITYFRH	KLS162H2	SFITYGRH	KLS162H3
SFJMPENH	KLS163H1	SFJMPFCH	KLS163H4	SFJMPFRH	KLS163H2	SFJMPGRH	KLS163H3
SFKEYS	KLSFKEYS	SFKEYS2	KLSFKEYX	SFKYSEN	KLSFKYS1	SFKYSFC	KLSFKYS4
SFKYSFR	KLSFKYS2	SFKYSGR	KLSFKYS3	SFLGMENH	KLS164H1	SFLGMFCH	KLS164H4
SFLGMFRH	KLS164H2	SFLGMGRH	KLS164H3	SFLGNENH	KLS165H1	SFLGNFCH	KLS165H4
SFLGNFRH	KLS165H2	SFLGNGRH	KLS165H3	SFLIMENH	KLS166H1	SFLIMFCH	KLS166H4
SFLIMFRH	KLS166H2	SFLIMGRH	KLS166H3	SFLNGENH	KLS167H1	SFLNGFCH	KLS167H4
SFLNGFRH	KLS167H2	SFLNGGRH	KLS167H3	SFLOCENH	KLS168H1	SFLOCFCH	KLS168H4
SFLOCFRH	KLS168H2	SFLOCGRH	KLS168H3	SFMAXENH	KLS169H1	SFMAXFCH	KLS169H4
SFMAXFRH	KLS169H2	SFMAXGRH	KLS169H3	SFMIDENH	KLS170H1	SFMIDFCH	KLS170H4
SFMIDFRH	KLS170H2	SFMIDGRH	KLS170H3	SFMSGENH	KLS171H1	SFMSGFCH	KLS171H4
SFMSGFRH	KLS171H2	SFMSGGRH	KLS171H3	SFNEAENH	KLS172H1	SFNEAFCH	KLS172H4
SFNEAFRH	KLS172H2	SFNEAGRH	KLS172H3	SFODCENH	KLS173H1	SFODCFCH	KLS173H4
SFODCFRH	KLS173H2	SFODCGRH	KLS173H3	SFOPTENH	KLS174H1	SFOPTFCH	KLS174H4
SFOPTFRH	KLS174H2	SFOPTGRH	KLS174H3	SFORDENH	KLS175H1	SFORDFCH	KLS175H4
SFORDFRH	KLS175H2	SFORDGRH	KLS175H3	SFPASENH	KLS007H1	SFPASFCH	KLS007H4
SFPASFRH	KLS007H2	SFPASGRH	KLS007H3	SFPCMENH	KLS176H1	SFPCMFCH	KLS176H4
SFPCMFRH	KLS176H2	SFPCMGRH	KLS176H3	SFPCNENH	KLS177H1	SFPCNFCH	KLS177H4
SFPCNFRH	KLS177H2	SFPCNGRH	KLS177H3	SFPIDENH	KLS178H1	SFPIDFCH	KLS178H4
SFPIDFRH	KLS178H2	SFPIDGRH	KLS178H3	SFPNMENH	KLS179H1	SFPNMFCH	KLS179H4
SFPNMFRH	KLS179H2	SFPNMGRH	KLS179H3	SFPOOENH	KLS180H1	SFPOOFCH	KLS180H4
SFPOOFRH	KLS180H2	SFPOOGRH	KLS180H3	SFPPLENH	KLS181H1	SFPPLFCH	KLS181H4
SFPPLFRH	KLS181H2	SFPPLGRH	KLS181H3	SFPRNENH	KLS182H1	SFPRNFCH	KLS182H4
SFPRNFRH	KLS182H2	SFPRNGRH	KLS182H3	SFPRTENH	KLS183H1	SFPRTFCH	KLS183H4
SFPRTFRH	KLS183H2	SFPRTGRH	KLS183H3	SFPSPENH	KLS184H1	SFPSPFCH	KLS184H4
SFPSPFRH	KLS184H2	SFPSPGRH	KLS184H3	SFPSSENH	KLS185H1	SFPSSFCH	KLS185H4

Table 15 (Page 10 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SFPSSFRH	KLS185H2	SFPSSGRH	KLS185H3	SFPTPENH	KLS186H1	SFPTPFCH	KLS186H4
SFPTPFRH	KLS186H2	SFPTPGRH	KLS186H3	SFPTRENH	KLS187H1	SFPTRFCH	KLS187H4
SFPTRFRH	KLS187H2	SFPTRGRH	KLS187H3	SFPVTENH	KLS188H1	SFPVTFCH	KLS188H4
SFPVTFRH	KLS188H2	SFPVTGRH	KLS188H3	SFPWSENH	KLS189H1	SFPWSFCH	KLS189H4
SFPWSFRH	KLS189H2	SFPWSGRH	KLS189H3	SFQPMENH	KLS190H1	SFQPMFCH	KLS190H4
SFQPMFRH	KLS190H2	SFQPMGRH	KLS190H3	SFRAPENH	KLS191H1	SFRAPFCH	KLS191H4
SFRAPFRH	KLS191H2	SFRAPGRH	KLS191H3	SFRATENH	KLS192H1	SFRATFCH	KLS192H4
SFRATFRH	KLS192H2	SFRATGRH	KLS192H3	SFRBMENH	KLS193H1	SFRBMFCH	KLS193H4
SFRBMFRH	KLS193H2	SFRBMGRH	KLS193H3	SFRBOENH	KLS194H1	SFRBOFCH	KLS194H4
SFRBOFRH	KLS194H2	SFRBOGRH	KLS194H3	SFRESENH	KLS195H1	SFRESFCH	KLS195H4
SFRESFRH	KLS195H2	SFRESGRH	KLS195H3	SFRPAENH	KLS196H1	SFRPAFCH	KLS196H4
SFRPAFRH	KLS196H2	SFRPAGRH	KLS196H3	SFRSEENH	KLS197H1	SFRSEFCH	KLS197H4
SFRSEFRH	KLS197H2	SFRSEGRH	KLS197H3	SFRTMENH	KLS198H1	SFRTMFCH	KLS198H4
SFRTMFRH	KLS198H2	SFRTMGRH	KLS198H3	SFSCRENH	KLS199H1	SFSCRFCH	KLS199H4
SFSCRFRH	KLS199H2	SFSCRGRH	KLS199H3	SFSESENH	KLS200H1	SFSESFCH	KLS200H4
SFSESFRH	KLS200H2	SFSESGRH	KLS200H3	SFSIMENH	KLS201H1	SFSIMFCH	KLS201H4
SFSIMFRH	KLS201H2	SFSIMGRH	KLS201H3	SFSRCENH	KLS202H1	SFSRCFCH	KLS202H4
SFSRCFRH	KLS202H2	SFSRCGRH	KLS202H3	SFSRMENH	KLS203H1	SFSRMFCH	KLS203H4
SFSRMFRH	KLS203H2	SFSRMGRH	KLS203H3	SFTDEL	KLSFTDEL	SFTDGENH	KLS204H1
SFTDGFCH	KLS204H4	SFTDGFRH	KLS204H2	SFTDGGRH	KLS204H3	SFTDLENH	KLS205H1
SFTDLFCH	KLS205H4	SFTDLFRH	KLS205H2	SFTDLGRH	KLS205H3	SFTINENH	KLS206H1
SFTINFCH	KLS206H4	SFTINFRH	KLS206H2	SFTINGRH	KLS206H3	SFTKYENH	KLS207H1
SFTKYFCH	KLS207H4	SFTKYFRH	KLS207H2	SFTKYGRH	KLS207H3	SFTPHENH	KLS208H1
SFTPHFCH	KLS208H4	SFTPHFRH	KLS208H2	SFTPHGRH	KLS208H3	SFTPRENH	KLS209H1
SFTPRFCH	KLS209H4	SFTPRFRH	KLS209H2	SFTPRGRH	KLS209H3	SFTRMENH	KLS210H1
SFTRMFCH	KLS210H4	SFTRMFRH	KLS210H2	SFTRMGRH	KLS210H3	SFTYPENH	KLS211H1
SFTYPFCH	KLS211H4	SFTYPFRH	KLS211H2	SFTYPGRH	KLS211H3	SFUDAENH	KLS212H1
SFUDAFCH	KLS212H4	SFUDAFRH	KLS212H2	SFUDAGRH	KLS212H3	SFUDSENH	KLS213H1
SFUDSFCH	KLS213H4	SFUDSFRH	KLS213H2	SFUDSGRH	KLS213H3	SFUSRENH	KLS214H1
SFUSRFCH	KLS214H4	SFUSRFRH	KLS214H2	SFUSRGRH	KLS214H3	SFVIDENH	KLS215H1
SFVIDFCH	KLS215H4	SFVIDFRH	KLS215H2	SFVIDGRH	KLS215H3	SFVSPENH	KLS216H1
SFVSPFCH	KLS216H4	SFVSPFRH	KLS216H2	SFVSPGRH	KLS216H3	SFVTRENH	KLS217H1
SFVTRFCH	KLS217H4	SFVTRFRH	KLS217H2	SFVTRGRH	KLS217H3	SFWSKENH	KLS218H1
SFWSKFCH	KLS218H4	SFWSKFRH	KLS218H2	SFWSKGRH	KLS218H3	SFWSOENH	KLS219H1
SFWSOFCH	KLS219H4	SFWSOFRH	KLS219H2	SFWSOGRH	KLS219H3	SFXMGENH	KLS220H1
SFXMGFCH	KLS220H4	SFXMGFRH	KLS220H2	SFXMGGRH	KLS220H3	SFXUSENH	KLS221H1
SFXUSFCH	KLS221H4	SFXUSFRH	KLS221H2	SFXUSGRH	KLS221H3	SFZUMENH	KLS222H1
SFZUMFCH	KLS222H4	SFZUMFRH	KLS222H2	SFZUMGRH	KLS222H3	SGATE	KLSGATE
SGPRF	KLSGPRF	SGRPS	KLSGRPS	SHCMDENH	KLS223H1	SHCMDFCH	KLS223H4
SHCMDFRH	KLS223H2	SHCMDGRH	KLS223H3	SHELP	KLSHELP	SHELPE	KLSHELPE
SHELPEN	KLSHELP1	SHELPENH	KLS224H1	SHELPENM	KLSHELM1	SHELPFC	KLSHELP4
SHELPFCH	KLS224H4	SHELPFCM	KLSHELM4	SHELPFR	KLSHELP2	SHELPFRH	KLS224H2
SHELPFRM	KLSHELM2	SHELPGR	KLSHELP3	SHELPGRH	KLS224H3	SHELPGRM	KLSHELM3
SHELPM	KLSHELPM	SHELPP	KLSHELPP	SHHELENH	KLS225H1	SHHELFCH	KLS225H4
SHHELFRH	KLS225H2	SHHELGRH	KLS225H3	SHHLPEN	KLSHHLP1	SHHLPENH	KLS226H1
SHHLPFC	KLSHHLP4	SHHLPFCH	KLS226H4	SHHLPFR	KLSHHLP2	SHHLPFRH	KLS226H2
SHHLPGR	KLSHHLP3	SHHLPGRH	KLS226H3	SHKYSEN	KLSHKYS1	SHKYSENH	KLS227H1
SHKYSFC	KLSHKYS4	SHKYSFCH	KLS227H4	SHKYSFR	KLSHKYS2	SHKYSFRH	KLS227H2
SHKYSGR	KLSHKYS3	SHKYSGRH	KLS227H3	SHTUTEN	KLSHTUT1	SHTUTENH	KLS228H1

Table 15 (Page 11 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SHTUTFC	KLSHTUT4	SHTUTFCH	KLS228H4	SHTUTFR	KLSHTUT2	SHTUTFRH	KLS228H2
SHTUTGR	KLSHTUT3	SHTUTGRH	KLS228H3	SLANGE	KLSLANGE	SLANGEN	KLSLANG1
SLANGENH	KLS229H1	SLANGFC	KLSLANG4	SLANGFCH	KLS229H4	SLANGFR	KLSLANG2
SLANGFRH	KLS229H2	SLANGGR	KLSLANG3	SLANGGRH	KLS229H3	SLANGP	KLSLANGP
SLGO1EN	KLSLGO11	SLGO1FC	KLSLGO14	SLGO1FR	KLSLGO12	SLGO1GR	KLSLGO13
SLKWDE	KLSLKWDE	SLKWDEN	KLSLKWD1	SLKWDENH	KLS230H1	SLKWDFC	KLSLKWD4
SLKWDFCH	KLS230H4	SLKWDFR	KLSLKWD2	SLKWDFRH	KLS230H2	SLKWDGR	KLSLKWD3
SLKWDGRH	KLS230H3	SLKWDP	KLSLKWDP	SLMOD	KLSLMOD	SLOCKE	KLSLOCKE
SLOCKEN	KLSLOCK1	SLOCKENH	KLS231H1	SLOCKFC	KLSLOCK4	SLOCKFCH	KLS231H4
SLOCKFR	KLSLOCK2	SLOCKFRH	KLS231H2	SLOCKGR	KLSLOCK3	SLOCKGRH	KLS231H3
SLOCKP	KLSLOCKP	SLPRF	KLSLPRF	SMOD1E	KLSMOD1E	SMOD1EN	KLSMOD11
SMOD1ENH	KLS232H1	SMOD1FC	KLSMOD14	SMOD1FCH	KLS232H4	SMOD1FR	KLSMOD12
SMOD1FRH	KLS232H2	SMOD1GR	KLSMOD13	SMOD1GRH	KLS232H3	SMOD1P	KLSMOD1P
SMOD2E	KLSMOD2E	SMOD2EN	KLSMOD21	SMOD2ENH	KLS233H1	SMOD2FC	KLSMOD24
SMOD2FCH	KLS233H4	SMOD2FR	KLSMOD22	SMOD2FRH	KLS233H2	SMOD2GR	KLSMOD23
SMOD2GRH	KLS233H3	SMOD2P	KLSMOD2P	SMSGAREA	KLSMSGAR	SMSGBLD	KLSMSGBL
SMSGCEN	KLSMSGC1	SMSGCFC	KLSMSGC4	SMSGCFR	KLSMSGC2	SMSGCGR	KLSMSGC3
SMSGCOLR	KLSMSGCO	SMSGDEN	KLSMSGD1	SMSGDFC	KLSMSGD4	SMSGDFR	KLSMSGD2
SMSGDGR	KLSMSGD3	SMSGEN	KLSSMSG1	SMSGFC	KLSSMSG4	SMSGFR	KLSSMSG2
SMSGGEN	KLSMSGG1	SMSGGFC	KLSMSGG4	SMSGGFR	KLSMSGG2	SMSGGGR	KLSMSGG3
SMSGGR	KLSSMSG3	SMSGLEN	KLSMSGL1	SMSGLFC	KLSMSGL4	SMSGLFR	KLSMSGL2
SMSGLGR	KLSMSGL3	SMSGSEN	KLSMSGS1	SMSGSET	KLSMSGST	SMSGSFC	KLSMSGS4
SMSGSFR	KLSMSGS2	SMSGSGR	KLSMSGS3	SMSGTEN	KLSMSGT1	SMSGTFC	KLSMSGT4
SMSGTFR	KLSMSGT2	SMSGTGR	KLSMSGT3	SMSG1R	KLSMSG1R	SMSG1W	KLSMSG1W
SMSG1Y	KLSMSG1Y	SMSG2R	KLSMSG2R	SMSG2W	KLSMSG2W	SMSG2Y	KLSMSG2Y
SMSG3R	KLSMSG3R	SMSG3W	KLSMSG3W	SMSG3Y	KLSMSG3Y	SMSG4R	KLSMSG4R
SMSG4W	KLSMSG4W	SMSG4Y	KLSMSG4Y	SMSG5R	KLSMSG5R	SMSG5W	KLSMSG5W
SMSG5Y	KLSMSG5Y	SMSG6R	KLSMSG6R	SMSG6W	KLSMSG6W	SMSG6Y	KLSMSG6Y
SMSG7R	KLSMSG7R	SMSG7W	KLSMSG7W	SMSG7Y	KLSMSG7Y	SMSG8R	KLSMSG8R
SMSG8W	KLSMSG8W	SMSG8Y	KLSMSG8Y	SNEWS	KLSNEWS	SNEWSE	KLSNEWSE
SNEWSEN	KLSNEWS1	SNEWSENH	KLS235H1	SNEWSFC	KLSNEWS4	SNEWSFCH	KLS235H4
SNEWSFR	KLSNEWS2	SNEWSFRH	KLS235H2	SNEWSGR	KLSNEWS3	SNEWSGRH	KLS235H3
SNEWSP	KLSNEWSP	SNEW1E	KLSNEW1E	SNEW1EN	KLSNEW11	SNEW1FC	KLSNEW14
SNEW1FR	KLSNEW12	SNEW1GR	KLSNEW13	SNEW1P	KLSNEW1P	SNEW2E	KLSNEW2E
SNEW2EN	KLSNEW21	SNEW2FC	KLSNEW24	SNEW2FR	KLSNEW22	SNEW2GR	KLSNEW23
SNEW2P	KLSNEW2P	SNEW3E	KLSNEW3E	SNEW3EN	KLSNEW31	SNEW3FC	KLSNEW34
SNEW3FR	KLSNEW32	SNEW3GR	KLSNEW33	SNEW3P	KLSNEW3P	SNE3AE	KLSNE3AE
SNE3AEN	KLSNE3A1	SNE3AFC	KLSNE3A4	SNE3AFR	KLSNE3A2	SNE3AGR	KLSNE3A3
SNE3AP	KLSNE3AP	SNPDL	KLSNPDL	SNULL	KLSNULL	SOPTS	KLSOPTS
SOPTSE	KLSOPTSE	SOPTSEN	KLSOPTS1	SOPTSENH	KLS236H1	SOPTSENM	KLSOPTM1
SOPTSFC	KLSOPTS4	SOPTSFCH	KLS236H4	SOPTSFCM	KLSOPTM4	SOPTSFR	KLSOPTS2
SOPTSFRH	KLS236H2	SOPTSFRM	KLSOPTM2	SOPTSGR	KLSOPTS3	SOPTSGRH	KLS236H3
SOPTSGRM	KLSOPTM3	SOPTSM	KLSOPTSM	SOPTSP	KLSOPTSP	SPANID	KLSPANID
SPEEK	KLSPEEK	SPFABENH	KLS237H1	SPFABFCH	KLS237H4	SPFABFRH	KLS237H2
SPFABGRH	KLS237H3	SPKYSENH	KLS238H1	SPKYSFCH	KLS238H4	SPKYSFRH	KLS238H2
SPKYSGRH	KLS238H3	SPKY1E	KLSPKY1E	SPKY1EN	KLSPKY11	SPKY1FC	KLSPKY14
SPKY1FR	KLSPKY12	SPKY1GR	KLSPKY13	SPKY1P	KLSPKY1P	SPKY2E	KLSPKY2E
SPKY2EN	KLSPKY21	SPKY2FC	KLSPKY24	SPKY2FR	KLSPKY22	SPKY2GR	KLSPKY23
SPKY2P	KLSPKY2P	SPKY3E	KLSPKY3E	SPKY3EN	KLSPKY31	SPKY3FC	KLSPKY34

Table 15 (Page 12 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SPKY3FR	KLSPKY32	SPKY3GR	KLSPKY33	SPKY3P	KLSPKY3P	SPRNT	KLSPRNT
SPRNTE	KLSPRNTE	SPRNTEN	KLSPRNT1	SPRNTENH	KLS239H1	SPRNTFC	KLSPRNT4
SPRNTFCH	KLS239H4	SPRNTFR	KLSPRNT2	SPRNTFRH	KLS239H2	SPRNTGR	KLSPRNT3
SPRNTGRH	KLS239H3	SPRNTP	KLSPRNTP	SPSTAE	KLSPSTAE	SPSTAEN	KLSPSTA1
SPSTAFC	KLSPSTA4	SPSTAFR	KLSPSTA2	SPSTAGR	KLSPSTA3	SPSTAP	KLSPSTAP
SRSVAE	KLSRSVAE	SRSVAEN	KLSRSVA1	SRSVAFC	KLSRSVA4	SRSVAFR	KLSRSVA2
SRSVAGR	KLSRSVA3	SRSVAP	KLSRSVAP	SSACTE	KLSSACTE	SSACTEN	KLSSACT1
SSACTENH	KLS305H1	SSACTFC	KLSSACT4	SSACTFCH	KLS305H4	SSACTFR	KLSSACT2
SSACTFRH	KLS305H2	SSACTGR	KLSSACT3	SSACTGRH	KLS305H3	SSACTP	KLSSACTP
SSADD	KLSSADD	SSAPFENH	KLS245H1	SSAPFFCH	KLS245H4	SSAPFFRH	KLS245H2
SSAPFGRH	KLS245H3	SSAPRENH	KLS246H1	SSAPRFCH	KLS246H4	SSAPRFRH	KLS246H2
SSAPRGRH	KLS246H3	SSAPSENH	KLS247H1	SSAPSFCH	KLS247H4	SSAPSFRH	KLS247H2
SSAPSGRH	KLS247H3	SSAPUENH	KLS248H1	SSAPUFCH	KLS248H4	SSAPUFRH	KLS248H2
SSAPUGRH	KLS248H3	SSAP1E	KLSSAP1E	SSAP1EN	KLSSAP11	SSAP1ENH	KLS240H1
SSAP1FC	KLSSAP14	SSAP1FCH	KLS240H4	SSAP1FR	KLSSAP12	SSAP1FRH	KLS240H2
SSAP1GR	KLSSAP13	SSAP1GRH	KLS240H3	SSAP1P	KLSSAP1P	SSAP2	KLSSAP2
SSAP2B	KLSSAP2B	SSAP2E	KLSSAP2E	SSAP2EN	KLSSAP21	SSAP2FC	KLSSAP24
SSAP2FR	KLSSAP22	SSAP2GR	KLSSAP23	SSAP2P	KLSSAP2P	SSAP3E	KLSSAP3E
SSAP3EN	KLSSAP31	SSAP3ENH	KLS241H1	SSAP3FC	KLSSAP34	SSAP3FCH	KLS241H4
SSAP3FR	KLSSAP32	SSAP3FRH	KLS241H2	SSAP3GR	KLSSAP33	SSAP3GRH	KLS241H3
SSAP3P	KLSSAP3P	SSAP4E	KLSSAP4E	SSAP4EN	KLSSAP41	SSAP4ENH	KLS242H1
SSAP4FC	KLSSAP44	SSAP4FCH	KLS242H4	SSAP4FR	KLSSAP42	SSAP4FRH	KLS242H2
SSAP4GR	KLSSAP43	SSAP4GRH	KLS242H3	SSAP4P	KLSSAP4P	SSAP5E	KLSSAP5E
SSAP5EN	KLSSAP51	SSAP5ENH	KLS243H1	SSAP5FC	KLSSAP54	SSAP5FCH	KLS243H4
SSAP5FR	KLSSAP52	SSAP5FRH	KLS243H2	SSAP5GR	KLSSAP53	SSAP5GRH	KLS243H3
SSAP5P	KLSSAP5P	SSAP6E	KLSSAP6E	SSAP6EN	KLSSAP61	SSAP6ENH	KLS244H1
SSAP6FC	KLSSAP64	SSAP6FCH	KLS244H4	SSAP6FR	KLSSAP62	SSAP6FRH	KLS244H2
SSAP6GR	KLSSAP63	SSAP6GRH	KLS244H3	SSAP6P	KLSSAP6P	SSAP7	KLSSAP7
SSBLDC	KLSBLDC	SSBLDS	KLSBLDS	SSBLDSL	KLSBLDSL	SSBLDT	KLSBLDT
SSBLDTL	KLSBLDTL	SSDCFE	KLSSDCFE	SSDCFEN	KLSSDCF1	SSDCFENH	KLS249H1
SSDCFFC	KLSSDCF4	SSDCFFCH	KLS249H4	SSDCFFR	KLSSDCF2	SSDCFFRH	KLS249H2
SSDCFGR	KLSSDCF3	SSDCFGRH	KLS249H3	SSDCFP	KLSSDCFP	SSDCL	KLSSDCL
SSDEF	KLSSDEF	SSGETCV	KLSGETCV	SSGETSQ	KLSGETSQ	SSGETSV	KLSGETSV
SSGETTV	KLSGETTV	SSGRPS	KLSSGRPS	SSHELP	KLSSHELP	SSHELPE	KLSSHLPE
SSHELPEN	KLSSHLP1	SSHELPFC	KLSSHLP4	SSHELPFR	KLSSHLP2	SSHELPGR	KLSSHLP3
SSHELPP	KLSSHLPP	SSINFE	KLSSINFE	SSINFEN	KLSSINF1	SSINFENH	KLS250H1
SSINFFC	KLSSINF4	SSINFFCH	KLS250H4	SSINFFR	KLSSINF2	SSINFFRH	KLS250H2
SSINFGR	KLSSINF3	SSINFGRH	KLS250H3	SSINFP	KLSSINFP	SSINITEN	KLSSINI1
SSINITFC	KLSSINI4	SSINITFR	KLSSINI2	SSINITGR	KLSSINI3	SSND1E	KLSSND1E
SSND1EN	KLSSND11	SSND1ENH	KLS251H1	SSND1FC	KLSSND14	SSND1FCH	KLS251H4
SSND1FR	KLSSND12	SSND1FRH	KLS251H2	SSND1GR	KLSSND13	SSND1GRH	KLS251H3
SSND1P	KLSSND1P	SSND2	KLSSND2	SSND2E	KLSSND2E	SSND2EN	KLSSND21
SSND2ENH	KLS252H1	SSND2FC	KLSSND24	SSND2FCH	KLS252H4	SSND2FR	KLSSND22
SSND2FRH	KLS252H2	SSND2GR	KLSSND23	SSND2GRH	KLS252H3	SSND2P	KLSSND2P
SSND3	KLSSND3	SSOPNS	KLSSOPNS	SSOPNT	KLSSOPNT	SSOPT1E	KLSSOP1E
SSOPT1EN	KLSSOPT1	SSOPT1FC	KLSSOPT4	SSOPT1FR	KLSSOPT2	SSOPT1GR	KLSSOPT3
SSOPT1P	KLSSOP1P	SSOPT2E	KLSSOP2E	SSOPT2EN	KLSSOP21	SSOPT2FC	KLSSOP24
SSOPT2FR	KLSSOP22	SSOPT2GR	KLSSOP23	SSOPT2P	KLSSOP2P	SSOPT3E	KLSSOP3E
SSOPT3EN	KLSSOP31	SSOPT3FC	KLSSOP34	SSOPT3FR	KLSSOP32	SSOPT3GR	KLSSOP33

Table 15 (Page 13 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SSOPT3P	KLSSOP3P	SSPUTCV	KLSPUTCV	SSQLANG	KLSQLANG	SSRCFEN	KLSSRCF1
SSRCFENH	KLS253H1	SSRCFFC	KLSSRCF4	SSRCFFCH	KLS253H4	SSRCFFR	KLSSRCF2
SSRCFFRH	KLS253H2	SSRCFGR	KLSSRCF3	SSRCFGRH	KLS253H3	SSRSTE	KLSSRSTE
SSRSTEN	KLSSRST1	SSRSTENH	KLS254H1	SSRSTFC	KLSSRST4	SSRSTFCH	KLS254H4
SSRSTFR	KLSSRST2	SSRSTFRH	KLS254H2	SSRSTGR	KLSSRST3	SSRSTGRH	KLS254H3
SSRSTP	KLSSRSTP	SSTAT	KLSSTAT	SSTATEN	KLSSTAT1	SSTATFC	KLSSTAT4
SSTATFR	KLSSTAT2	SSTATGR	KLSSTAT3	SSTRTE	KLSSTRTE	SSTRTEN	KLSSTRT1
SSTRTENH	KLS255H1	SSTRTFC	KLSSTRT4	SSTRTFCH	KLS255H4	SSTRTFR	KLSSTRT2
SSTRTFRH	KLS255H2	SSTRTGR	KLSSTRT3	SSTRTGRH	KLS255H3	SSTRTP	KLSSTRTP
SSUNIN	KLSUNIN	SSUNIN2	KLSUNINX	SSVFEAT	KLSVFEAT	SSYESNO	KLSYESNO
STACTE	KLSTACTE	STACTEN	KLSTACT1	STACTENH	KLS257H1	STACTFC	KLSTACT4
STACTFCH	KLS257H4	STACTFR	KLSTACT2	STACTFRH	KLS257H2	STACTGR	KLSTACT3
STACTGRH	KLS257H3	STACTP	KLSTACTP	STAC2	KLSTAC2	STAC2E	KLSTAC2E
STAC2EN	KLSTAC21	STAC2ENH	KLS256H1	STAC2FC	KLSTAC24	STAC2FCH	KLS256H4
STAC2FR	KLSTAC22	STAC2FRH	KLS256H2	STAC2GR	KLSTAC23	STAC2GRH	KLS256H3
STAC2P	KLSTAC2P	STAC3E	KLSTAC3E	STAC3EN	KLSTAC31	STAC3FC	KLSTAC34
STAC3FR	KLSTAC32	STAC3GR	KLSTAC33	STAC3P	KLSTAC3P	STADD	KLSTADD
STADDENH	KLS259H1	STADDFCH	KLS259H4	STADDFRH	KLS259H2	STADDGRH	KLS259H3
STADLENH	KLS260H1	STADLFCH	KLS260H4	STADLFRH	KLS260H2	STADLGRH	KLS260H3
STAD2ENH	KLS258H1	STAD2FCH	KLS258H4	STAD2FRH	KLS258H2	STAD2GRH	KLS258H3
STBGRENH	KLS261H1	STBGRFCH	KLS261H4	STBGRFRH	KLS261H2	STBGRGRH	KLS261H3
STBLKENH	KLS262H1	STBLKFCH	KLS262H4	STBLKFRH	KLS262H2	STBLKGRH	KLS262H3
STDEF	KLSTDEF	STDEL	KLSTDEL	STDELENH	KLS263H1	STDELFCH	KLS263H4
STDELFRH	KLS263H2	STDELGRH	KLS263H3	STERM	KLSTERM	STERMA	KLSTERMA
STERME	KLSTERME	STERMEN	KLSTERM1	STERMENH	KLS264H1	STERMENM	KLSTRMM1
STERMFC	KLSTERM4	STERMFCH	KLS264H4	STERMFCM	KLSTRMM4	STERMFR	KLSTERM2
STERMFRH	KLS264H2	STERMFRM	KLSTRMM2	STERMGR	KLSTERM3	STERMGRH	KLS264H3
STERMGRM	KLSTRMM3	STERMP	KLSTERMP	STFGRENH	KLS265H1	STFGRFCH	KLS265H4
STFGRFRH	KLS265H2	STFGRGRH	KLS265H3	STFXFENH	KLS266H1	STFXFFCH	KLS266H4
STFXFFRH	KLS266H2	STFXFGRH	KLS266H3	STGO2ENH	KLS267H1	STGO2FCH	KLS267H4
STGO2FRH	KLS267H2	STGO2GRH	KLS267H3	STINFENH	KLS268H1	STINFFCH	KLS268H4
STINFFRH	KLS268H2	STINFGRH	KLS268H3	STINSE	KLSTINSE	STINSEN	KLSTINS1
STINSENH	KLS269H1	STINSFC	KLSTINS4	STINSFCH	KLS269H4	STINSFR	KLSTINS2
STINSFRH	KLS269H2	STINSGR	KLSTINS3	STINSGRH	KLS269H3	STINSP	KLSTINSP
STIN2E	KLSTIN2E	STIN2EN	KLSTIN21	STIN2ENH	KLS008H1	STIN2FC	KLSTIN24
STIN2FCH	KLS008H4	STIN2FR	KLSTIN22	STIN2FRH	KLS008H2	STIN2GR	KLSTIN23
STIN2GRH	KLS008H3	STIN2P	KLSTIN2P	STJMPENH	KLS270H1	STJMPFCH	KLS270H4
STJMPFRH	KLS270H2	STJMPGRH	KLS270H3	STLCKENH	KLS271H1	STLCKFCH	KLS271H4
STLCKFRH	KLS271H2	STLCKGRH	KLS271H3	STLSSENH	KLS272H1	STLSSFCH	KLS272H4
STLSSFRH	KLS272H2	STLSSGRH	KLS272H3	STLST	KLSTLST	STLSTA	KLSTLSTA
STLSTE	KLSTLSTE	STLSTEN	KLSTLST1	STLSTENH	KLS273H1	STLSTFC	KLSTLST4
STLSTFCH	KLS273H4	STLSTFR	KLSTLST2	STLSTFRH	KLS273H2	STLSTGR	KLSTLST3
STLSTGRH	KLS273H3	STLSTP	KLSTLSTP	STMDCE	KLSTMDCE	STMDCEN	KLSTMDC1
STMDCENH	KLS276H1	STMDCFC	KLSTMDC4	STMDCFCH	KLS276H4	STMDCFR	KLSTMDC2
STMDCFRH	KLS276H2	STMDCGR	KLSTMDC3	STMDCGRH	KLS276H3	STMDCP	KLSTMDCP
STMDFENH	KLS277H1	STMDFFCH	KLS277H4	STMDFFRH	KLS277H2	STMDFGRH	KLS277H3
STMD1E	KLSTMD1E	STMD1EN	KLSTMD11	STMD1ENH	KLS274H1	STMD1FC	KLSTMD14
STMD1FCH	KLS274H4	STMD1FR	KLSTMD12	STMD1FRH	KLS274H2	STMD1GR	KLSTMD13
STMD1GRH	KLS274H3	STMD1P	KLSTMD1P	STMD2E	KLSTMD2E	STMD2EN	KLSTMD21

Table 15 (Page 14 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
STMD2ENH	KLS275H1	STMD2FC	KLSTMD24	STMD2FCH	KLS275H4	STMD2FR	KLSTMD22
STMD2FRH	KLS275H2	STMD2GR	KLSTMD23	STMD2GRH	KLS275H3	STMD2P	KLSTMD2P
STMD3E	KLSTMD3E	STMD3EN	KLSTMD31	STMD3ENH	KLS009H1	STMD3FC	KLSTMD34
STMD3FCH	KLS009H4	STMD3FR	KLSTMD32	STMD3FRH	KLS009H2	STMD3GR	KLSTMD33
STMD3GRH	KLS009H3	STMD3P	KLSTMD3P	STMD4E	KLSTMD4E	STMD4EN	KLSTMD41
STMD4ENH	KLS010H1	STMD4FC	KLSTMD44	STMD4FCH	KLS010H4	STMD4FR	KLSTMD42
STMD4FRH	KLS010H2	STMD4GR	KLSTMD43	STMD4GRH	KLS010H3	STMD4P	KLSTMD4P
STMD5E	KLSTMD5E	STMD5EN	KLSTMD51	STMD5ENH	KLS011H1	STMD5FC	KLSTMD54
STMD5FCH	KLS011H4	STMD5FR	KLSTMD52	STMD5FRH	KLS011H2	STMD5GR	KLSTMD53
STMD5GRH	KLS011H3	STMD5P	KLSTMD5P	STMENENH	KLS278H1	STMENFCH	KLS278H4
STMENFRH	KLS278H2	STMENGRH	KLS278H3	STMFYENH	KLS279H1	STMFYFCH	KLS279H4
STMFYFRH	KLS279H2	STMFYGRH	KLS279H3	STMODE	KLSTMODE	STMODEN	KLSTMOD1
STMODENH	KLS280H1	STMODFC	KLSTMOD4	STMODFCH	KLS280H4	STMODFR	KLSTMOD2
STMODFRH	KLS280H2	STMODGR	KLSTMOD3	STMODGRH	KLS280H3	STMODP	KLSTMODP
STNXTENH	KLS281H1	STNXTFCH	KLS281H4	STNXTFRH	KLS281H2	STNXTGRH	KLS281H3
STOPTENH	KLS282H1	STOPTFCH	KLS282H4	STOPTFRH	KLS282H2	STOPTGRH	KLS282H3
STPRF	KLSTPRF	STPRTENH	KLS283H1	STPRTFCH	KLS283H4	STPRTFRH	KLS283H2
STPRTGRH	KLS283H3	STPRVENH	KLS284H1	STPRVFCH	KLS284H4	STPRVFRH	KLS284H2
STPRVGRH	KLS284H3	STQITENH	KLS285H1	STQITFCH	KLS285H4	STQITFRH	KLS285H2
STQITGRH	KLS285H3	STRGSENH	KLS287H1	STRGSFCH	KLS287H4	STRGSFRH	KLS287H2
STRGSGRH	KLS287H3	STRG1	KLSTRG1	STRG1A	KLSTRG1A	STRG1E	KLSTRG1E
STRG1EN	KLSTRG11	STRG1ENH	KLS286H1	STRG1FC	KLSTRG14	STRG1FCH	KLS286H4
STRG1FR	KLSTRG12	STRG1FRH	KLS286H2	STRG1GR	KLSTRG13	STRG1GRH	KLS286H3
STRG1P	KLSTRG1P	STRMCE	KLSTRMCE	STRMCEN	KLSTRMC1	STRMCENH	KLS288H1
STRMCFC	KLSTRMC4	STRMCFCH	KLS288H4	STRMCFR	KLSTRMC2	STRMCFRH	KLS288H2
STRMCGR	KLSTRMC3	STRMCGRH	KLS288H3	STRMCP	KLSTRMCP	STRMWEN	KLSTRMW1
STRMWFC	KLSTRMW4	STRMWFR	KLSTRMW2	STRMWGR	KLSTRMW3	STTRGENH	KLS289H1
STTRGFCH	KLS289H4	STTRGFRH	KLS289H2	STTRGGRH	KLS289H3	STTRMENH	KLS290H1
STTRMFCH	KLS290H4	STTRMFRH	KLS290H2	STTRMGRH	KLS290H3	STUNBENH	KLS291H1
STUNBFCH	KLS291H4	STUNBFRH	KLS291H2	STUNBGRH	KLS291H3	STZUMENH	KLS292H1
STZUMFCH	KLS292H4	STZUMFRH	KLS292H2	STZUMGRH	KLS292H3	SUDEF	KLSUDEF
SUINFE	KLSUINFE	SUINFEN	KLSUINF1	SUINFENH	KLS293H1	SUINFFC	KLSUINF4
SUINFFCH	KLS293H4	SUINFFR	KLSUINF2	SUINFFRH	KLS293H2	SUINFGR	KLSUINF3
SUINFGRH	KLS293H3	SUINFP	KLSUINFP	SUINIE	KLSUINIE	SUINIEN	KLSUINI1
SUINIFC	KLSUINI4	SUINIFR	KLSUINI2	SUINIGR	KLSUINI3	SUINIP	KLSUINIP
SUNLKE	KLSUNLKE	SUNLKEN	KLSUNLK1	SUNLKENH	KLS294H1	SUNLKFC	KLSUNLK4
SUNLKFCH	KLS294H4	SUNLKFR	KLSUNLK2	SUNLKFRH	KLS294H2	SUNLKGR	KLSUNLK3
SUNLKGRH	KLS294H3	SUNLKP	KLSUNLKP	SUOPSE	KLSUOPSE	SUOPSEN	KLSUOPS1
SUOPSENH	KLS295H1	SUOPSFC	KLSUOPS4	SUOPSFCH	KLS295H4	SUOPSFR	KLSUOPS2
SUOPSFRH	KLS295H2	SUOPSGR	KLSUOPS3	SUOPSGRH	KLS295H3	SUOPSP	KLSUOPSP
SUPRF	KLSUPRF	SVACHEN	KLSVACH1	SVACHENH	KLS296H1	SVACHFC	KLSVACH4
SVACHFCH	KLS296H4	SVACHFR	KLSVACH2	SVACHFRH	KLS296H2	SVACHGR	KLSVACH3
SVACHGRH	KLS296H3	SVACT	KLSVACT	SVACTE	KLSVACTE	SVACTEN	KLSVACT1
SVACTENH	KLS297H1	SVACTFC	KLSVACT4	SVACTFCH	KLS297H4	SVACTFR	KLSVACT2
SVACTFRH	KLS297H2	SVACTGR	KLSVACT3	SVACTGRH	KLS297H3	SVACTP	KLSVACTP
SVACTT	KLSVACTT	SVINSE	KLSVINSE	SVINSEN	KLSVINS1	SVINSENH	KLS298H1
SVINSFC	KLSVINS4	SVINSFCH	KLS298H4	SVINSFR	KLSVINS2	SVINSFRH	KLS298H2
SVINSGR	KLSVINS3	SVINSGRH	KLS298H3	SVINSP	KLSVINSP	SVKEYS	KLSVKEYS
SVOPTE	KLSVOPTE	SVOPTEN	KLSVOPT1	SVOPTENH	KLS299H1	SVOPTFC	KLSVOPT4

Table 15 (Page 15 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
SVOPTFCH	KLS299H4	SVOPTFR	KLSVOPT2	SVOPTFRH	KLS299H2	SVOPTGR	KLSVOPT3
SVOPTGRH	KLS299H3	SVOPTP	KLSVOPTP	SVSEL	KLSVSEL	SVSELA	KLSVSELA
SVSELE	KLSVSELE	SVSELEN	KLSVSEL1	SVSELENH	KLS300H1	SVSELFC	KLSVSEL4
SVSELFCH	KLS300H4	SVSELFR	KLSVSEL2	SVSELFRH	KLS300H2	SVSELGR	KLSVSEL3
SVSELGRH	KLS300H3	SVSELP	KLSVSELP	SVSRME	KLSVSRME	SVSRMEN	KLSVSRM1
SVSRMENH	KLS301H1	SVSRMFC	KLSVSRM4	SVSRMFCH	KLS301H4	SVSRMFR	KLSVSRM2
SVSRMFRH	KLS301H2	SVSRMGR	KLSVSRM3	SVSRMGRH	KLS301H3	SVSRMP	KLSVSRMP
SWCTLE	KLSWCTLE	SWCTLEN	KLSWCTL1	SWCTLENH	KLS302H1	SWCTLFC	KLSWCTL4
SWCTLFCH	KLS302H4	SWCTLFR	KLSWCTL2	SWCTLFRH	KLS302H2	SWCTLGR	KLSWCTL3
SWCTLGRH	KLS302H3	SWCTLP	KLSWCTLP	SWHOIEN	KLSWHOI1	SWHOIFC	KLSWHOI4
SWHOIFR	KLSWHOI2	SWHOIGR	KLSWHOI3	SWSOPE	KLSWSOPE	SWSOPEN	KLSWSOP1
SWSOPENH	KLS303H1	SWSOPFC	KLSWSOP4	SWSOPFCH	KLS303H4	SWSOPFR	KLSWSOP2
SWSOPFRH	KLS303H2	SWSOPGR	KLSWSOP3	SWSOPGRH	KLS303H3	SWSOPP	KLSWSOPP
SXACTE	KLSXACTE	SXACTEN	KLSXACT1	SXACTFC	KLSXACT4	SXACTFR	KLSXACT2
SXACTGR	KLSXACT3	SXACTP	KLSXACTP	SXADDE	KLSXADDE	SXADDEN	KLSXADD1
SXADDFC	KLSXADD4	SXADDFR	KLSXADD2	SXADDGR	KLSXADD3	SXADDP	KLSXADDP
SXCMD	KLSXCMD	SXCMDEN	KLSXCMD1	SXCMDFC	KLSXCMD4	SXCMDFR	KLSXCMD2
SXCMDGR	KLSXCMD3	SXLSTA	KLSXLSTA	SXLSTE	KLSXLSTE	SXLSTEN	KLSXLST1
SXLSTENH	KLS304H1	SXLSTFC	KLSXLST4	SXLSTFCH	KLS304H4	SXLSTFR	KLSXLST2
SXLSTFRH	KLS304H2	SXLSTGR	KLSXLST3	SXLSTGRH	KLS304H3	SXLSTP	KLSXLSTP
SYSIN	KLSSYSIN	TDBALLOC	KLSTDBAL	TERMDLG	KLSTERMD	TERMSESS	KLSTERMS
TERM0000	KLST0000	TERM0001	KLST0001	TERM0011	KLST0011	TERM0021	KLST0021
TERM0031	KLST0031	TERM0041	KLST0041	TERM0051	KLST0051	TERM0061	KLST0061
TERM115	KLSTERM5	TIMBRWS	TIMBRWS	TIMBRWSD	TIMBRWSD	TIMBRWSQ	TIMBRWSQ
TIMBRWSV	TIMBRWSV	TIMCOPY	TIMCOPY	TIMDEL	TIMDEL	TIMGOTON	TIMGOTON
TIMGOTOV	TIMGOTOV	TIMGTL	TIMGTL	TIMMAIN	TIMMAIN	TIMMAINA	TIMMAINA
TIMMAIND	TIMMAIND	TIMMAINO	TIMMAINO	TIMMAINV	TIMMAINV	TIMOUTC	TIMOUTC
TIMOUTI	TIMOUTI	TIMOUTP	TIMOUTP	TIMOUTS	TIMOUTS	TIMPREF	TIMPREF
TIMPRNT	TIMPRNT	TIMPRNTC	TIMPRNTC	TIMPRNTD	TIMPRNTD	TIMPRNTG	TIMPRNTG
TIMPRNTO	TIMPRNTO	TIMPROF	TIMPROF	TIMPSA	TIMPSA	TIMRPT	TIMRPT
TIMSLF	TIMSLF	TIMSTAT	TIMSTAT	TIMSTATD	TIMSTATD	TIMSTATG	TIMSTATG
TK$ATTRS	TK$ATTRS	TK$TKDEC	TK$TKDEC	TKD$SKEL	TKD$SKEL	TKD@GLO	TKD@GLO
TKD@GLOG	TKD@GLOG	TKD@GLOP	TKD@GLOP	TKD@GLOR	TKD@GLOR	TKD@GLOS	TKD@GLOS
TKD@HIX	TKD@HIX	TKD@HIXG	TKD@HIXG	TKD@HIXP	TKD@HIXP	TKD@HIXR	TKD@HIXR
TKD@HIXS	TKD@HIXS	TKD@HLPD	TKD@HLPD	TKD@HLPI	TKD@HLPI	TKD@HLPN	TKD@HLPN
TKD@HLPR	TKD@HLPR	TKD@HLPU	TKD@HLPU	TKD@LOGA	TKD@LOGA	TKD@LOGI	TKD@LOGI
TKD@LOGO	TKD@LOGO	TKD@LOG1	TKD@LOG1	TKD@NLSI	TKD@NLSI	TKD@NPWD	TKD@NPWD
TKD@PRF	TKD@PRF	TKD@PRFX	TKD@PRFX	TKDCASE	TKDCASE	TKDCPRO	TKDCPRO
TKDCVAL	TKDCVAL	TKDDCONF	TKDDCONF	TKDDPRO	TKDDPRO	TKDDVAL	TKDDVAL
TKDECONF	TKDECONF	TKDFDATE	TKDFDATE	TKDFKA	TKDFKA	TKDFTIME	TKDFTIME
TKDHELP	TKDHELP	TKDHELPM	TKDHELPM	TKDHPRO	TKDHPRO	TKDHVAL	TKDHVAL
TKDINIT	TKDINIT	TKDKILLX	TKDKILLX	TKDLGMOD	TKDLGMOD	TKDMPOP	TKDMPOP
TKDMREP	TKDMREP	TKDPREF	TKDPREF	TKDPREFL	TKDPREFL	TKDPRMS	TKDPRMS
TKDPULLD	TKDPULLD	TKDRDIR	TKDRDIR	TKDRPDS	TKDRPDS	TKDSGNON	TKDSGNON
TKDSPOP	TKDSPOP	TKDTBPRO	TKDTBPRO	TKDTITLE	TKDTITLE	TKDWPDS	TKDWPDS
TKDWRAP	TKDWRAP	TRIGGERS	KLSTRIGS	TRIG115	KLSTRIG5	UCLIN	KLSCLIN
UNLOCK	KLSNLOCK	UNLOC115	KLSUNLC5	USER$ACB	KLG#ACBX	USER$SCB	KLG#SCBX
USERMOD	KLSUSRMD	VASNQENH	VASNQENH	VATTR	KLSATTR	VATTREN	KLSATTR1
VATTRFR	KLSATTR2	VATTRGR	KLSATTR3	VATTRS	KLSATTRS	VBOTM	KLSBOTM

Table 15 (Page 16 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
VBOTMEN	KLSBOTM1	VBOTMFR	KLSBOTM2	VBOTMGR	KLSBOTM3	VBULLE	KLSBULLE
VBULLEN	KLSBULL1	VBULLFR	KLSBULL2	VBULLGR	KLSBULL3	VBULLP	KLSBULLP
VDATME	KLSDATME	VDATMEN	KLSDATM1	VDATMFR	KLSDATM2	VDATMGR	KLSDATM3
VDATMP	KLSDATMP	VFDELENH	VFDELENH	VFDELFRH	VFDELFRH	VFDELGRH	VFDELGRH
VFHSPENH	VFHSPENH	VFHSPFRH	VFHSPFRH	VFHSPGRH	VFHSPGRH	VFJMPENH	VFJMPENH
VFJMPFRH	VFJMPFRH	VFJMPGRH	VFJMPGRH	VFSCRENH	VFSCRENH	VFSCRFRH	VFSCRFRH
VFSCRGRH	VFSCRGRH	VFVSPENH	VFVSPENH	VFVSPFRH	VFVSPFRH	VFVSPGRH	VFVSPGRH
VFZUMENH	VFZUMENH	VFZUMFRH	VFZUMFRH	VFZUMGRH	VFZUMGRH	VGPRF	KLSGPRF
VGWATTN	KLGWATTN	VGWDADM1	KLGWADMA	VGWDADM2	KLGWADMB	VGWDFORE	KLGWFORE
VGWDIMS	KLGWDIMS	VGWDMENU	KLGWMENU	VGWDNPWD	KLGWNPWD	VGWDNTRY	KLGWNTRY
VGWDOPTA	KLGWOPTA	VGWDOPTS	KLGWOPTS	VGWDSED1	KLGWSE1D	VGWDSERR	KLGWSERR
VGWDVSEL	KLGWVSEL	VGWDVSL2	KLGWVS2L	VGWDVS12	KLGWVSAB	VGWHSD11	KLGHSDAA
VGWHSD12	KLGHSDAB	VGWHVSEL	KLGHVSEL	VGWHVSL1	KLGHVSLA	VGWHVSL2	KLGHVSLB
VGWHVSL3	KLGHVSLC	VGWHVS01	KLGHVS0A	VGWHVS02	KLGHVS0B	VGWHVS03	KLGHVS0C
VGWHVS04	KLGHVS0D	VGWHVS05	KLGHVS0E	VGWHVS06	KLGHVS0F	VGWHVS07	KLGHVS0G
VGWHVS08	KLGHVS0H	VGWIMS	KLGGWIMS	VGWLDEST	KLGLDEST	VGWLGMOD	KLGLGMOD
VGWLHG	KLGGWLHG	VGWLIMS	KLGWLIMS	VGWLNTRY	KLGLNTRY	VGWLOGON	KLGLOGON
VGWLSESS	KLGLSESS	VGWLSSHG	KLGLSSHG	VGWLUINI	KLGLUINI	VGWLVACT	KLGLVACT
VGWNPWD	KLGNWPWD	VGWPFKEY	KLGPFKEY	VGWSELCT	KLGSELCT	VGWVSSNT	KLGVSSNT
VIG#LALB	KLGGPALB	VIG#MSG	KLGGPMSG	VIGAPINQ	KLGAPINQ	VIGAPMON	KLGAPMON
VIGBIND	KLGGPBND	VIGDFAPD	KLGDFAPD	VIGDFBRC	KLGDFBRC	VIGDFDR	KLGDFDER
VIGDFDYN	KLGDFDYN	VIGDFELE	KLGDFELE	VIGDFENT	KLGDFENT	VIGDFEX	KLGDFEXT
VIGDFGAP	KLGDFGAP	VIGDFGW	KLGDFGWP	VIGDFIBC	KLGDFIBC	VIGDFIMS	KLIDFIMS
VIGDFMSG	KLGDFMSG	VIGDFPAS	KLGDFPAS	VIGDFPT	KLGDFPST	VIGDFRLS	KLGDFRLS
VIGDFSPF	KLGDFSPF	VIGDFSTS	KLGDFSTS	VIGDFSYC	KLGDFSYC	VIGDFTBV	KLGDFTBV
VIGDFUSR	KLGDFUSR	VIGDFVAR	KLGDFVAR	VIGDFVSM	KLGDFVSM	VIGDIALG	KLGASDLG
VIGDMASY	KLGASASY	VIGDRMGR	KLGASDRM	VIGHSINI	KLGGPHSB	VIGIBMGR	KLGASIBM
VIGIMSQM	KLIASOQM	VIGINIMS	KLGINIMS	VIGINVGW	KLGINGWY	VIGINVHP	KLGINVHP
VIGOPAPD	KLGOPDEF	VIGOPAPL	KLGOPAPL	VIGOPBCG	KLGOPBCG	VIGOPHG	KLGOPHGC
VIGOPIMB	KLGOPIMB	VIGOPIMS	KLIOPIMS	VIGOPLEV	KLGOPLEV	VIGOPMTO	KLIOPMTO
VIGOPSHW	KLGOPSHW	VIGTIMGR	KLGASTOM	VIRTMTO1	KLIVMTO1	VIRTMTO2	KLIVMTO2
VIRTMTO3	KLIVMTO3	VIRTMTO4	KLIVMTO4	VLANGEN	VLANGEN	VLANGFR	VLANGFR
VLANGGR	VLANGGR	VLGO1EN	KLSNG530	VLGO1FC	KLSNG533	VLGO1FR	KLSNG531
VLGO1GR	KLSNG532	VLPRF	KLSLPRF	VMPRF	KLSMPRF	VMSG2FR	VMSG2FR
VMSG2GR	VMSG2GR	VNEWSE	KLSNEWSE	VNEWSEN	KLSNEWS1	VNEWSENH	KLS235H1
VNEWSFR	KLSNEWS2	VNEWSFRH	KLS235H2	VNEWSGR	KLSNEWS3	VNEWSGRH	KLS235H3
VNEWSP	KLSNEWSP	VNEW1E	KLSNEW1E	VNEW1EN	KLSNEW11	VNEW1FR	KLSNEW12
VNEW1GR	KLSNEW13	VNEW1P	KLSNEW1P	VNEW2E	KLSNEW2E	VNEW2EN	KLSNEW21
VNEW2FR	KLSNEW22	VNEW2GR	KLSNEW23	VNEW2P	KLSNEW2P	VNEW3E	KLSNEW3E
VNEW3EN	KLSNEW31	VNEW3FR	KLSNEW32	VNEW3GR	KLSNEW33	VNEW3P	KLSNEW3P
VNE3AE	KLSNE3AE	VNE3AEN	KLSNE3A1	VNE3AFR	KLSNE3A2	VNE3AGR	KLSNE3A3
VNE3AP	KLSNE3AP	VNPDL	KLSNPDL	VNTRYENH	VNTRYENH	VNTRYFRH	VNTRYFRH
VNTRYGRH	VNTRYGRH	VPERP	VPERP	VPERPEN	VPERPEN	VPERPFR	VPERPFR
VPERPGR	VPERPGR	VPKYSENH	KLS238H1	VPKYSFRH	KLS238H2	VPKYSGRH	KLS238H3
VPKY1E	KLSPKY1E	VPKY1EN	KLSPKY11	VPKY1FR	KLSPKY12	VPKY1GR	KLSPKY13
VPKY1P	KLSPKY1P	VPKY2E	KLSPKY2E	VPKY2EN	KLSPKY21	VPKY2FR	KLSPKY22
VPKY2GR	KLSPKY23	VPKY2P	KLSPKY2P	VPKY3E	KLSPKY3E	VPKY3EN	KLSPKY31
VPKY3FR	KLSPKY32	VPKY3GR	KLSPKY33	VPKY3P	KLSPKY3P	VSDCL	KLSSDCL
VSDCLTST	VSDCLTST	VSHWCLR	KLSHWCLR	VSHWDISH	KLSHWDSH	VSHWDISP	KLSHWDSP

Table 15 (Page 17 of 17). Cross Reference table - &rhilev.TLSSAMP(KLSTBLS)							
Old Name	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**	**Old Name**	**New Name**
VSHWINQ	KLSHWINQ	VSHWINQH	KLSHWIQH	VSHWINQU	KLSHWIQU	VSHWLINE	KLSHWLIN
VSHWLINH	KLSHWLIH	VSHWLOCK	KLSHWLCK	VSHWPARS	KLSHWPAR	VSHWUSEH	KLSHWUSH
VSHWUSER	KLSHWUSR	VSSCBOT1	KLSCBOTA	VSSCBOT2	KLSCBOTB	VSSCBOT3	KLSCBOTC
VSSCTOP1	KLSCTOPA	VSSCTOP2	KLSCTOPB	VSSDADM1	KLSDADMA	VSSDADM2	KLSDADMB
VSSDCLRK	KLSDCLRK	VSSDDERR	KLSDDERR	VSSDDSER	KLSDDSER	VSSDEXIT	KLSDEXIT
VSSDFORE	KLSDFORE	VSSDNPWD	KLSDNPWD	VSSDNTRY	KLSDNTRY	VSSDOPTA	KLSDOPTA
VSSDOPTS	KLSDOPTS	VSSDPEEK	KLSDPEEK	VSSDSED1	KLSDSEDA	VSSDSED2	KLSDSEDB
VSSDSERR	KLSDSERR	VSSDTACT	KLSDTACT	VSSDTINS	KLSDTINS	VSSDTRER	KLSDTRER
VSSDTRID	KLSDTRID	VSSDTSEL	KLSDTSEL	VSSDTSER	KLSDTSER	VSSDUINI	KLSDUINI
VSSDVDEL	KLSDVDEL	VSSDVINS	KLSDVINS	VSSDVSEL	KLSDVSEL	VSSDVTER	KLSDVTER
VSSDXIT1	KLSDXITA	VSSEC	KLSVSSEC	VSSHADM1	KLSHADMA	VSSHADM2	KLSHADMB
VSSHBOT1	KLSHBO1A	VSSHBOT2	KLSHBO2A	VSSHINIT	KLSHINIT	VSSHNPWD	KLSHNPWD
VSSHNTRY	KLSHNTRY	VSSHOPTA	KLSHOPTA	VSSHOPTS	KLSHOPTS	VSSHPEEK	KLSHPEEK
VSSHPSCR	KLSHPSCR	VSSHSD11	KLSHSD1A	VSSHSD12	KLSHSD1B	VSSHSED2	KLSHSEDB
VSSHTACT	KLSHTACT	VSSHTINS	KLSHTINS	VSSHTOPT	KLSHTOPT	VSSHTOP2	KLSHTOPB
VSSHTOP3	KLSHTOPC	VSSHTOP4	KLSHTOPD	VSSHTOP5	KLSHTOPE	VSSHTRID	KLSHTRID
VSSHTSL1	KLSHTSLA	VSSHTSL2	KLSHTSLB	VSSHVINS	KLSHVINS	VSSHVSL1	KLSHVSLA
VSSHVSL2	KLSHVSLB	VSSINVSS	KLUINVSS	VSSKEY	KLSSKEY	VSSLHELP	KLSLHELP
VSSLIMS	KLSLIMS	VSSLKEY	KLSSLKEY	VSSLPSCR	KLSLPSCR	VSSLSESS	KLSLSESS
VSSLSTRT	KLSLSTRT	VSSLTACT	KLSLTACT	VSSLUINI	KLSLUINI	VSSLVACT	KLSLVACT
VSSLVDEL	KLSLVDEL	VSSLXIT1	KLSLXITA	VSSLXTRT	KLSLXTRT	VSSVTOPT	KLSVTOPT
VSSVT115	KLSVT11E	VTAMLST	KLSVTLST	VTPAPLCK	KLVAPLCK	VTPCLIB	TLSCMDS
VTPENTRY	KLVENTRY	VTPEN115	KLSEN115	VTPILIB	TLSPARM	VTPINDM	KLVINDM
VTPINNAF	KLVINNAF	VTPINNAM	KLVINNAM	VTPINPSM	KLVINPSM	VTPINRLM	KLVINRLM
VTPINSNS	KLVINSNS	VTPINSSI	KLVINSSI	VTPINSTG	KLVINSTG	VTPINTB	KLVINTB
VTPINVLG	KLVINVLG	VTPINVPO	KLVINVPO	VTPINVTM	KLVINVTM	VTPLOAD	TLSLOAD
VTPPFKEY	VTPPFKEY	VTPPF115	KLSPF115	VTPPLIB	TLSPNLS	VTPPMOPT	KLVPMOPT
VTP00	KLST000	VTP01	KLST001	VTP02	KLST002	VTP03	KLST003
VTP04	KLST004	VTP05	KLST005	VTSEC	KLVVTSEC	VUPRF	KLSUPRF
VWCTLE	KLSWCTLE	VWCTLEN	KLSWCTL1	VWCTLENH	KLS302H1	VWCTLFR	KLSWCTL2
VWCTLFRH	KLS302H2	VWCTLGR	KLSWCTL3	VWCTLGRH	KLS302H3	VWCTLP	KLSWCTLP
VWHOIEN	KLSWHOI1	VWHOIFR	KLSWHOI2	VWHOIGR	KLSWHOI3	V146COPY	KLS#RNM
V146MIGD	KLSMIGD	V146MIGI	KLSMIGI	V146MIGP	KLSMIGP	V146MIGR	KLSMIGJ
V146MIGT	KLSMIGT	ZOOM	KLSZOOM				

Appendix G.
Candle Customer Support

Introduction

Candle Corporation offers a comprehensive maintenance and support plan to ensure you realize the greatest value possible from your Candle software investments. We have more than 200 technicians worldwide, committed to providing you with prompt resolutions to your support requests.

Customer Support hours of operation are from 5:30 A.M. to 5:00 P.M., Pacific Time. In the event of an after-hours or weekend emergency, Candle's computerized call management system ensures that a technician will return your call within one hour. For customers located outside of North America, after-hours and weekend support is provided by Candle Customer Support locations in the United States.

Electronic Support

Candle provides information and support services using

- Candle's home page at **www.candle.com**. You can use the Candle Web site to
  - open problem records
  - access maintenance information
  - order products or maintenance
  - access IBM compatibility information
  - download fix packs for distributed products
  - read news and alerts
  - scan a list of scheduled Candle education classes
- Candle Electronic Customer Support (CECS), an electronic customer support facility. You can access this facility through the IBM Global Network. You can use CECS to
  - open problem records
  - search our database for solutions to known problems
  - look for answers to commonly asked questions
  - read news and alerts
  - scan a list of scheduled Candle education classes

Both CECS and the Candle Web site are available 24 hours a day, 7 days per week.

Telephone Support

Our support network consists of product specialists who work with you to solve your problem.

Candle uses an online problem management system to log and track all support requests. Your request is immediately routed to the appropriate technical resource.

When you call to report a problem, please have the following information:

- your Candle personal ID (PID) number
- the release level of the Candle product
- the release level of IBM or other vendor software
- identifying information and dates of recently applied maintenance to your Candle product or IBM product
- a detailed description of the problem (including the error message) and the events preceding the problem
- a description of any unusual events that occurred before the problem

Customer Support Phone Numbers

	Telephone	Fax
North America	(800) 328-1811	
	(310) 535-3636	(310) 727-4204
Europe		
Belgium/Luxembourg	+32 (0) 3 270 95 60	+32 (0) 3 270 95 41
France	+33 (0) 1 53 61 60 60	+33 (0) 1 53 61 06 16
Germany/Switzerland/ Austria	+49 (0) 89 54 554 333	+49 (0) 89 54 554 170
Italy - Freephone	800 780992	
Netherlands	+31 (0) 30 600 35 50	+31 (0) 30 600 35 10
Scandinavia	+46 (0)8 444 5940	+46 (0)8 623 1855
U.K.	+44 (0)161 437 5224	+44 (0)161 437 5225
(Southern Europe, Middle East and South Africa Agents call U.K.)		
Asia Pacific - English Hub		+61 2 9954 1818
Australia	+61 2 8912 9898	
Hong Kong	800 908 457	
India	+61 2 8912 9898	
Indonesia	0018 03061 2061	
Malaysia	1800 803 459	
New Zealand	0800 449 596	
Philippines	1800 1612 0096	
Singapore	800 616 2075	
Thailand	0018 00612 1045	
Asia Pacific - Japanese Hub	+81 3 3595 7150	+81 3 3595 7110
Asia Pacific - Korean Hub	+82 2 552 8744	+82 2 552 8746
Asia Pacific - Mandarin Hub	+88 62 2739 3223	+88 62 2378 5993
Asia Pacific e-mail address: ap_support@candle.com		

When your local support office is unavailable, you can contact Candle's North America support center. If USADirect® service is available in your country, use the 800 telephone number. If USADirect service is not available, ask your international operator for assistance in calling Candle's local (310) number.

Incident Documentation

You may be asked to send incident documentation to the Candle Customer Support Center. On the outside of all packages you send, please write the incident number given to you by the Customer Support representative.

Send tapes containing the incident information to the following address, unless directed otherwise by your Customer Support representative:

Candle Customer Support
Candle Support Center, *Incident number*
201 North Douglas Street
El Segundo, CA 90245

Send all other relevant documentation, such as diskettes or paper documentation, to the address provided by your Customer Support representative.

Ensuring Your Satisfaction with Customer Support

Candle Customer Support is committed to achieving high customer satisfaction ratings in all areas. These include

- connecting you to a support representative promptly
- providing you with the appropriate fixes
- answering support questions
- filling your shipping orders
- supplying documentation

If you have a concern that has not been resolved to your satisfaction, you can open a complaint ticket. All tickets are logged and tracked to ensure responsiveness and closure. Using the ticket information, a manager will contact you promptly to resolve your problem.

Special Characters

Numerics

A

B

C

D

J

K

L

M

Q

R

S

T

U

V

W

Z