

Peregrine

ServiceCenter

System Administrator's Guide, Volume 1

Release 5.1

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About This Guide

Welcome to the *ServiceCenter System Administrator's Guide, Volume 1*. The *ServiceCenter System Administrator's Guide* is a two-volume set that provides an introduction to ServiceCenter from a system administrator's perspective.

The guide provides instructions for starting, setting up, and managing ServiceCenter. It includes instructions for using database tools, supporting files, and some advanced administrative utilities. It also includes information on the basic ServiceCenter window, use of the applications, logging on and off of ServiceCenter, and using the menus and buttons. All menus and forms presented are those that a system administrator with all available modules would see.

Volume 1 is divided into the following sections:

- Getting Started
- Support Files
- User Access and Security Control
- Print Routines and Printer Setup
- Clocks and the Inactivity Timer
- Time Zone Function and Date Formats
- Monitor System Events
- Mandanten Database Protection
- Command Line Prompt Calls, Appendix A

Volume 2 is divided into the following sections:

- Unload Script Utility
- Purging and archiving records
- Data Mapping
- Loading and unloading records
- Export Utility
- Import Utility
- Telephony
- LDAP Server Interface
- Load Manager
- Report Writer
- Benchmark Utility
- Keyboard Shortcuts, Appendix A

You'll find specific installation and reference information in other ServiceCenter documentation. For instructions on getting started in the applications, see the *ServiceCenter User's Guide*. For instructions on administering the Java client, see the *ServiceCenter Java Client Installation and Setup Guide*.

Knowledge Requirements

A system administrator needs a thorough knowledge of the operating environment in which ServiceCenter is installed and accessed and a basic understanding of the ServiceCenter applications. Before you begin using this guide, thoroughly read and become familiar with the material in the *ServiceCenter User's Guide*.

ServiceCenter installation requirements are specific to the machine where ServiceCenter is being installed. These requirements are listed in the respective installation guides.

Organization of This Guide

This guide is organized around the main system administration tasks associated with setting up and maintaining the ServiceCenter, applications, modules, and user base. The following chart shows you which parts of the manual you need to reference to find the information you need.

To Find This	Look Here
ServiceCenter Interface Enhancement, ServiceCenter Client/Server, starting and stopping ServiceCenter, Initialization (sc.ini) file, The System Administrator Client window	<i>Getting Started</i> on page 15.
Menu setup	<i>Creating a Startup Menu</i> on page 174.
Central Administration Utilities	<i>Central Administration Utilities</i> on page 142.
Printing setup	<i>Printing—Setup</i> on page 238.
Starting and stopping clocks	<i>Clocks</i> on page 251.
Attaching and deleting documents -- OLE (Object Linking and Embedding) containers	<i>File Attachments and OLE Containers</i> on page 69.
Limiting attachment, record, and array sizes	<i>Limiting Attachment File Sizes</i> on page 73.
Searching extended text fields	<i>Finding Data in Extended Text Fields</i> on page 75.
Support files	<i>Support Files</i> on page 81.
Accessing, creating, updating, and deleting a record	<i>File Management</i> on page 82.
Adding users and accessing operator records, capability words used to allow functionality to a user, changing user passwords, modifying a company record, central user maintenance control	<i>User Access and Security Control</i> on page 131.
Display system status from a command line and from a system button, system status features	<i>ServiceCenter System Status</i> on page 47.
Error logs	<i>Monitor ServiceCenter System Events</i> on page 283.

To Find This	Look Here
Starting, stopping, and restarting the inactivity timer, deleting the inactivity schedule record	<i>Inactivity Timer</i> on page 267.
Protecting records	<i>Mandanten Database Protection</i> on page 297.
Deciding which print routines to use	<i>Print Routines and Printer Setup</i> on page 229.
Restrict logins to prepare for system maintenance	<i>Restricting Logins</i> on page 192.

ServiceCenter’s Best Practices in Processes and Workflow

ServiceCenter uses the Information Technology Infrastructure Library (ITIL) processes and workflow. This is a set of standards and procedures developed by the Central Computer & Telecommunications Agency (CCTA), a United Kingdom government agency, for its best practices in processes and workflow. You will find that Peregrine Systems has given you the tools you will need to perform certain tasks in ServiceCenter. For more information on ServiceCenter’s Best Practices, see *ServiceCenter Introduction and Best Practices*.

Sample Data in the System

The standard ServiceCenter system contains test data (users, devices, contacts, and so on) with which to work and learn the system. You can use these records as a model for your actual data. This guide uses the sample data to illustrate the utilities and processes described. You can modify or delete these records as you learn the system. You can also create new records.

Sample data includes:

- Users—a set of fictitious users with associated profiles, incident tickets and other records.
- Menus—various startup menus with different system rights. You may copy these for your use or modify them to fit the users on your system.

- Inventory—a simulated network inventory (modems, PCs, workstations, mainframe hosts, and so on).
- Contacts—a number of contact records. Each individual in the contacts file is associated with a certain device or primary asset.

Other Supporting Files—additional sample data in such files as location, company, model, and vendor. Information in these files is used throughout ServiceCenter.

Sample Screens and Examples

The sample screens and examples included in this guide are for illustration only and may differ from those at your site.

Documentation Web Site

For a complete listing of the current ServiceCenter documentation, see the Documentation pages on the Peregrine CenterPoint Web site at <http://support.peregrine.com/>.

You will need your current login and password to access this Web page.

For copies of the manuals, you can download .PDF files of the documentation using the Adobe Acrobat Reader (also available on the Web site). Additionally, you can order printed copies of the documentation through your Peregrine Systems sales representative.

Contacting Peregrine Systems

For further information and assistance with ServiceCenter in general, contact Peregrine's Customer Support.

Peregrine's CenterPoint Web Site

Current details of local support offices are available through Peregrine's CenterPoint Web site at <http://support.peregrine.com/>.

To find Peregrine Worldwide Contact Information:

- 1 Log on with your login User Name and Password.
- 2 Click **Go** for **CenterPoint**.
- 3 Select **Whom Do I Call?** in the navigation bar on the left side of the page.
Peregrine worldwide information is displayed for all products.

Contacting Education Services

Training services are available for the full spectrum of Peregrine Products including ServiceCenter.

Current details of our training services are available through the following main contacts or at:

<http://www.peregrine.com/education>

Address:	Peregrine Systems, Inc. Attn: Education Services 3611 Valley Centre Drive San Diego, CA 92130
Telephone:	+1 (858) 794-5009
Fax:	+1 (858) 480-3928

1 Getting Started

CHAPTER

Overview

This chapter will help you get started using the ServiceCenter application. Learn more as you read about:

- Switching interface enhancement modes.
- Installing a new server.
- Starting and stopping a ServiceCenter server.
- The System Administrator Client window.
- Setting up clocks to track time in specific areas of ServiceCenter, such as incident tickets.
- Using OLE (Object Linking and Embedding) containers.
- Setting file attachments size limits.
- Using the Find feature to search fields for data.
- Creating a Hot News entry for the Knowledge Base.

ServiceCenter Interface Enhancement for Windows NT/2000/XP

ServiceCenter offers a choice of two interfaces for Windows NT/2000/XP:

- Multiple Display Interface (MDI), which ships with an active MDI that provides a separate ServiceCenter desktop and menu bar (Figure 1-1 on page 17). Windows appear as separate threads that are confined within the desktop. Menu options change appropriately for the active thread.
- Single Display Interface (SDI)

The advantages to the MDI feature are:

- Facilitates organization of multiple windows on the working desktop. You may resize the desktop to fit any sized window. Threaded windows will not go beyond the borders of the MDI desktop and cannot get lost behind other objects on your screen.
- Allows users to minimize multiple threads to a single desktop process in the task bar. The Single Display Interface (SDI) requires users to minimize each window separately to reduce screen clutter. This can rapidly fill the task bar with unmarked ServiceCenter buttons. The MDI mode minimizes the entire desktop into a single task bar button that contains all open windows.

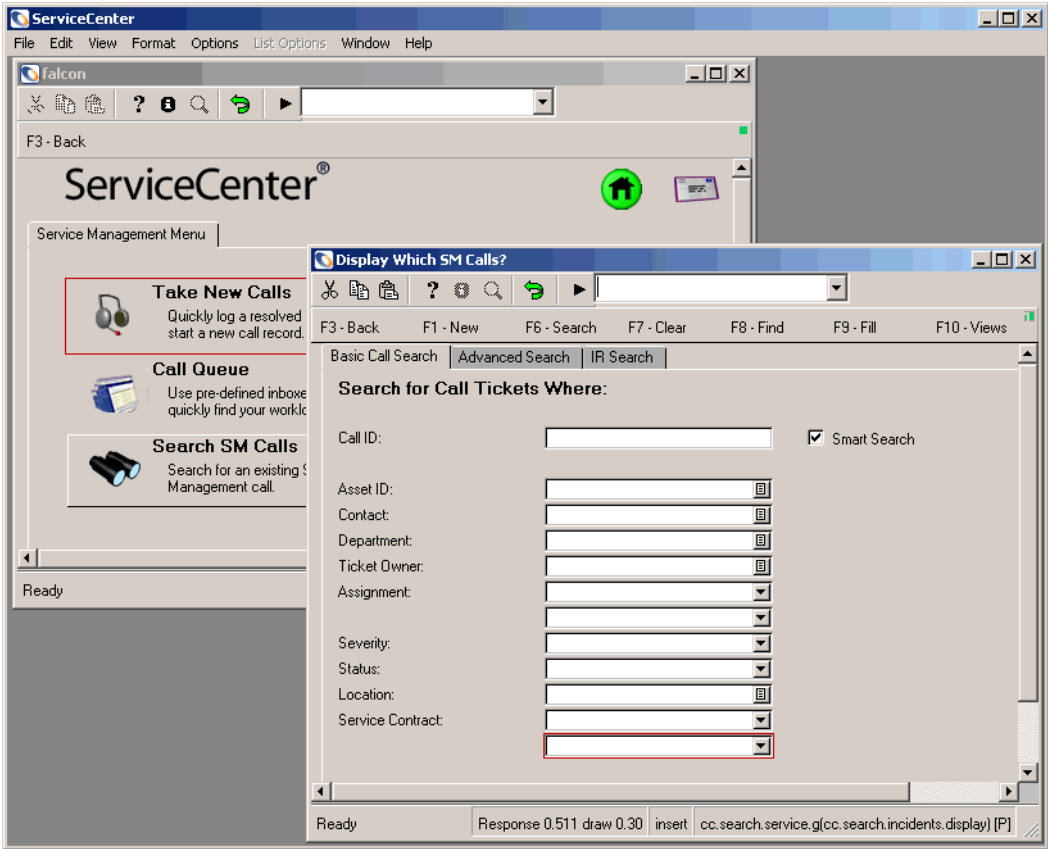


Figure 1-1: ServiceCenter in MDI mode

Switching Modes

Although the default interface mode for ServiceCenter 3.0 or later is MDI, you may configure your system to use the SDI mode. If you are upgrading your system from an earlier release of ServiceCenter, you may want your users to see the same interface with which they have been working. You may use either of the following processes to configure your system to use the SDI mode:

- If your ServiceCenter server is on Windows NT/2000/XP add a parameter to the ServiceCenter initialization file. This method reconfigures the server to the SDI mode. All the users logging on to the system see the Single Display Interface.
- Add a parameter to the client shortcut. This method configures an individual client to see the SDI mode. All other users logging on to the system see the MDI mode. This procedure can be performed by the user with the guidance of the system administrator.

Initialization (sc.ini) File

To edit the initialization file:

- 1 Stop the ServiceCenter server.
- 2 Go to the ServiceCenter RUN directory.
- 3 Open the sc.ini file using Notepad.
- 4 Add the following line to the parameter field:
sdi
- 5 Save the file, and exit Notepad.
- 6 Restart the ServiceCenter server.

Client Shortcut

To edit the client shortcut:

- 1 Place the cursor on the client shortcut.
- 2 Click the right mouse button (right-click), and choose **Properties** from the menu.
- 3 Select the Shortcut tab in the Properties window (Figure 1-2 on page 19).



4 Add the following to the shortcut path:

-sdi

For example: "C:\Program Files\ServiceCenter\Run\scguiw32.exe"

-system:joe.user.12670

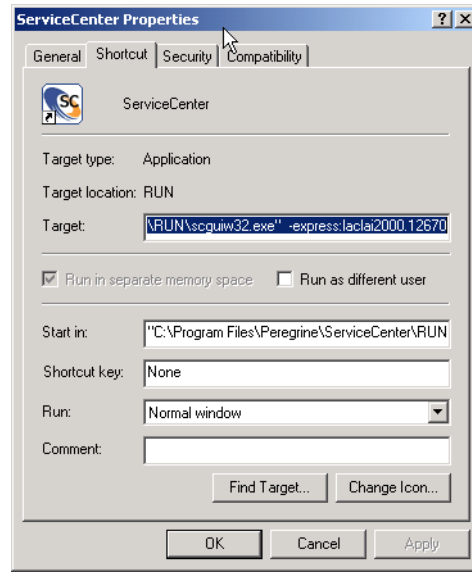


Figure 1-2: Shortcut properties

5 Click OK.

ServiceCenter Client/Server

As previously mentioned, ServiceCenter runs in a client/server environment. Most users are not aware of the server, although they are accessing the data from the server. The ServiceCenter server contains the system's database, applications and utilities.

Users access ServiceCenter applications through a client. The client can either run the applications locally or from the server. The processing for the ServiceCenter client is done on the server, and the results are displayed on the user's screen.

ServiceCenter clients operate on many platforms, including:

- Windows 98/NT/2000/XP
- Java
- Unix (text mode only)
- OS/390 (text mode only)

ServiceCenter servers operate on:

- Windows NT/2000/XP
- Unix
- OS/390

Clients and servers can run in different environments. For example, end-users can be running Windows-based clients, while the ServiceCenter server is running on a Unix machine.

Server Installation Overview

Installation instructions for ServiceCenter are specific to the platform on which you are installing the system (that is, OS/390, Unix, Windows, Macintosh, OS/2) and what you are installing, the client or the server software. Each installation is documented in a separate guide.

ServiceCenter can also be accessed from a user's PC by connecting directly to a ServiceCenter Server, using the ServiceCenter Java client. The Java client, which is a completely and fully functioning interface to the ServiceCenter applications, supports the same functionality as the traditional ServiceCenter Windows clients without any need for application or format customizing. To learn more about the Java client, see the *ServiceCenter Java Client Installation and Configuration Guide*.

Starting and Stopping a ServiceCenter Server

Before starting or running any client sessions, the ServiceCenter server must be started.

Starting the ServiceCenter Server in Windows NT/2000/XP

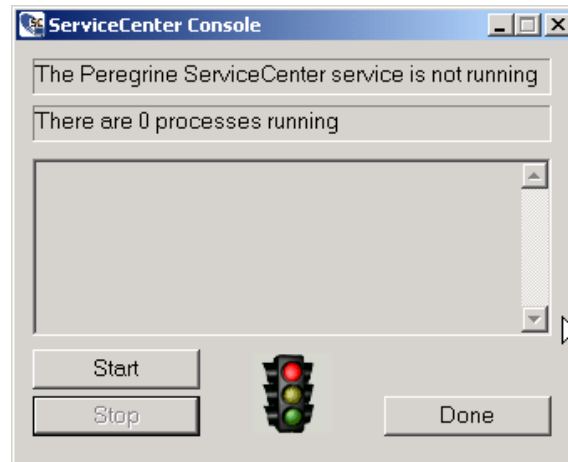
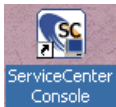
The ServiceCenter server runs as a service on Windows NT/2000/XP. The service can be started from the following locations:

- ServiceCenter Console
- Windows NT/2000/XP Services Control Panel
- DOS Command Prompt

ServiceCenter Console

To start the ServiceCenter service from the Console:

- 1 Display the ServiceCenter Console.
 - a Open the ServiceCenter program group from the Start menu, and select ServiceCenter Console.
 - or –
 - b Double-click the ServiceCenter Console button on your desktop.



- 2 Click **Start** to start the ServiceCenter service.

After several seconds, messages are displayed in the Console window stating that the service is running and indicating the number of processes that are running.

The **Stop** button becomes active.

- You can exit the Console by closing the window or clicking **Done**. The ServiceCenter service remains running until you click **Stop**.
- The Console can be accessed again by double-clicking the ServiceCenter Console button.

Control Panel

To start the ServiceCenter Windows NT/2000/XP server from the Control Panel:



- 1 In Windows NT, open the Control Panel and double-click Services.

Note: In Windows 2000/XP, go to:
Control Panel>Administrative Tools>Services.

The Windows NT/2000/XP Services dialog box is displayed.

2 In the services list, select ServiceCenter.

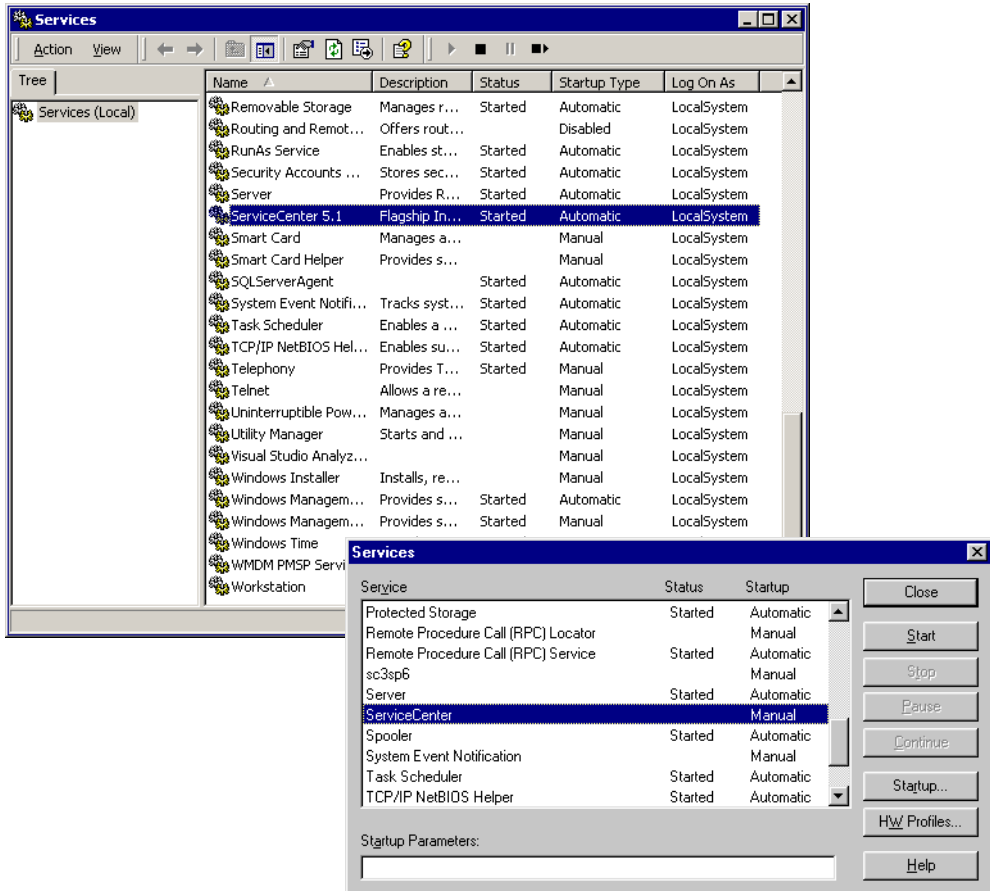


Figure 1-3: Windows NT/2000 Services—starting service

3 Click Start in Windows NT or select Action > Start in Windows 2000/XP.

A message box is displayed in Window NT, stating: *Attempting to start the ServiceCenter service on <host name>*. In Windows 2000 the following message is displayed: Windows is attempting to start the following service on Local Computer.

After several seconds, the service starts. The Services dialog box displays *Started* in the **Status** field. If the ServiceCenter service does not start, call Peregrine Customer Support with any relevant data (error messages, and so on).

DOS Command Prompt

To start the ServiceCenter Windows NT/2000/XP service from a DOS Command Prompt:

- 1 From the **Start** menu, open a **Command Prompt**.
- 2 Enter the following command to start the ServiceCenter server:

```
net start servicecenter
```

- 3 Press **Enter**.

A message is displayed informing you that the ServiceCenter service is starting.

Using the NetDOS Command Prompt to Display Other Commands

If you want to display other Net DOS command prompts, type `net` to display other options.

For example, type `net statistics server` to receive statistics.

Automatically Starting ServiceCenter

You can configure ServiceCenter to start automatically whenever the system is restarted. Out-of-box, this is the default.

To automatically start ServiceCenter when the system is restarted:

For this example, we will use a Windows NT platform.

- 1 In the Start menu, click **Settings > Control Panel > Services**.
The Services dialog box is displayed.
- 2 Scroll down to ServiceCenter. Select **ServiceCenter** by putting your cursor on ServiceCenter and highlighting your selection.
- 3 Click **Startup...** in the Services dialog box.
- 4 Select **Automatic** in the **Startup Type** field, and then click **OK** to save your change and exit back to the Services dialog box.

ServiceCenter is now flagged to automatically start up when your system is restarted. Notice that the Startup column for ServiceCenter in the Services dialog box now says *Automatic*.

If you want to change this back to manual or disable the ServiceCenter startup, go back into the Services dialog box, as described in these steps, and make your change.

Stopping the ServiceCenter Server in Windows NT/2000/XP

To stop a ServiceCenter server in Windows NT/2000/XP, begin with exiting all clients. This will ensure that no information is lost during the shutdown process.

Note: If you do not exit all clients, they will be terminated automatically.

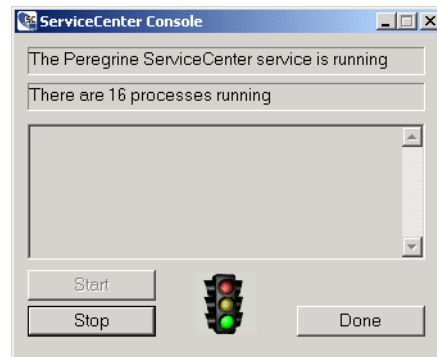
You may stop the ServiceCenter server from the following locations:

- ServiceCenter Console
- Windows NT/2000/XP Services Control Panel
- DOS Command Prompt

ServiceCenter Console

To stop the ServiceCenter server:

- 1 Double-click the ServiceCenter Console button on your desktop.
The ServiceCenter Console is displayed.



- 2 Click **Stop**.
A prompt is displayed asking: *Do you want to stop ServiceCenter?*
- 3 Click **OK**.
The **Stop** button fades to gray and the **Start** button is highlighted. A message is displayed in the console window stating: *ServiceCenter is not running*.
- 4 Click **Done** (or close the window) to exit the ServiceCenter Console.

Control Panel

To stop the ServiceCenter Service from the Windows NT/2000/XP Control Panel:



- 1 Open the Control Panel and double-click Services.

Note: For Win/2000/XP, go to: Control Panel>Administrative Tools>Services.

The Windows NT/2000/XP Services dialog box is displayed.

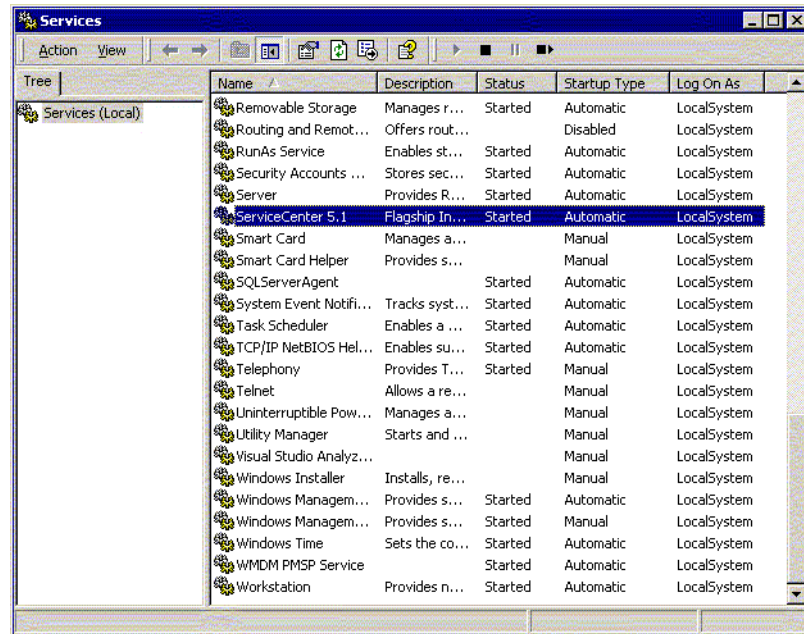


Figure 1-4: Windows NT/2000 Services—stopping service

- 2 From the Services list, select ServiceCenter.
- 3 Click Stop to stop the ServiceCenter service.

A prompt is displayed asking: *Do you want to stop ServiceCenter?*

- 4 Click OK.

DOS Command Prompt

To stop the ServiceCenter Windows NT/2000/XP server from a DOS Command Prompt:

- 1 From the Start menu, open a Command Prompt.
- 2 Enter the following command to stop the ServiceCenter server:

```
net stop servicecenter
```

- 3 Press Enter.

A message is displayed informing you that the ServiceCenter service is stopping.

Starting the ServiceCenter Server in Unix

The ServiceCenter server process is started by a script in the Unix environment. The script is supplied with ServiceCenter. You can also enable client login.

To start the script:

- 1 Change to the directory where the *scstart* script is located, for example:

```
/Run
```

- 2 Enter the command *scstart* and press Enter.

To start a listener from a command prompt:

- 1 Change to the **Run** directory.

- 2 Issue the following command:

```
scenter -express:<expressport> &
```

- 3 Press Enter.

Stopping the ServiceCenter Server in Unix

To shut down a ServiceCenter server on Unix:

- ▶ Issue the following command:
`scstop u`
Note: The `u` parameter indicates all ServiceCenter processes should be stopped. The shutdown process can take up to five minutes.
- ▶ Issue the following command to stop ServiceCenter immediately:
`scstop u -i`
- ▶ Issue the following command to force the close of other processes that were not properly shut down:
`scstop u -f`

Starting the ServiceCenter Server in OS/390

To start ServiceCenter:

- 1 Edit the member `SC` in the `HILEV.VERSION.SAMPLIB` partitioned data set created during installation.

This member contains sample JCL that starts ServiceCenter as a batch job and also contains notes indicating the necessary changes.

- 2 For started tasks only:
 - a Copy the `SC` member to your started task `PROCLIB`.
 - b Delete the `JOBCARD`, and delete the `PEND` and `EXEC SC` statements (the last two statements in the member). If possible, use the preset parameters for `REGION` and `TIME`.

Note: For more information about these DD statements, refer to Appendix A of the *Client/Server Installation Guide for OS/390*.

- 3 Submit the batch job (or initiate the started task). Within one minute, ServiceCenter issues the following console message:

```
SC001 SERVICECENTER LOGONS ENABLED -- APPLID
```

If ServiceCenter does not issue this console message, refer to Appendix B of the *Client/Server Installation Guide for OS/390*.

Note: If you are unable to resolve startup errors, contact Peregrine Customer Support for assistance. Be prepared to provide information about any abend messages you received and any steps taken towards resolution.

Stopping the ServiceCenter Server in OS/390

The ServiceCenter server can be shut down either internally or externally in OS/390.

Internal OS/390 shutdown

For OS/390 only, internal shutdown is the recommended method of shutting down ServiceCenter (as opposed to the external method).

To shut down ServiceCenter internally:

- Enter shutdown on the ServiceCenter command line,
- *or* -
- In the system administrator's home menu, select the Utilities tab, click Maintenance, select the System tab, and then click Shutdown,
- *or* -
- Select the shutdown option from the System Admin Menu II (text user).

Note: Selecting the shutdown option from the System Admin Menu II can be done only by an operator with SysAdmin capability.

For more information on internal shutdown and available options, see *Shutting Down a ServiceCenter Server from a Windows client* on page 30.

External OS/390 Shutdown

Although an internal shutdown is the recommended method of shutting down ServiceCenter, two *external* methods are available:

- OS/390 Modify command: /fjobname, SHUTDOWN
- OS/390 P (stop) command.

Note: Both external shutdown methods permit the system to complete active I/O transactions, preserving the integrity of the file system.

Warning: Do not use the OS/390 C (cancel) command to stop ServiceCenter. Canceling ServiceCenter prevents it from completing active I/O transactions, potentially causing file system corruption.

Shutting Down a ServiceCenter Server from a Windows client

Shutting down a server is a different process than *stopping* a server. A server can be shut down from within ServiceCenter while clients are logged on to the system, which allows them to finish their work and exit the system. Peregrine Systems recommends stopping a server only after all clients have logged off. How you shut down a ServiceCenter server depends upon the platform on which it is running.

You can shut down your ServiceCenter server from a ServiceCenter client window if you are logged on as an administrator. There are three shutdown types:

- Immediate
- Delayed
- Scheduled

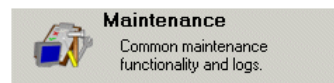
Users are notified when the server stops. You can also check the system status. These options are available through the ServiceCenter Maintenance Menu.

Note: If you are running the ServiceCenter server on Windows NT/2000/XP, you must stop the ServiceCenter Server service after the shutdown process.

Immediate Shutdown

To shut down a ServiceCenter server immediately:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Maintenance**.



The ServiceCenter Maintenance menu is displayed.

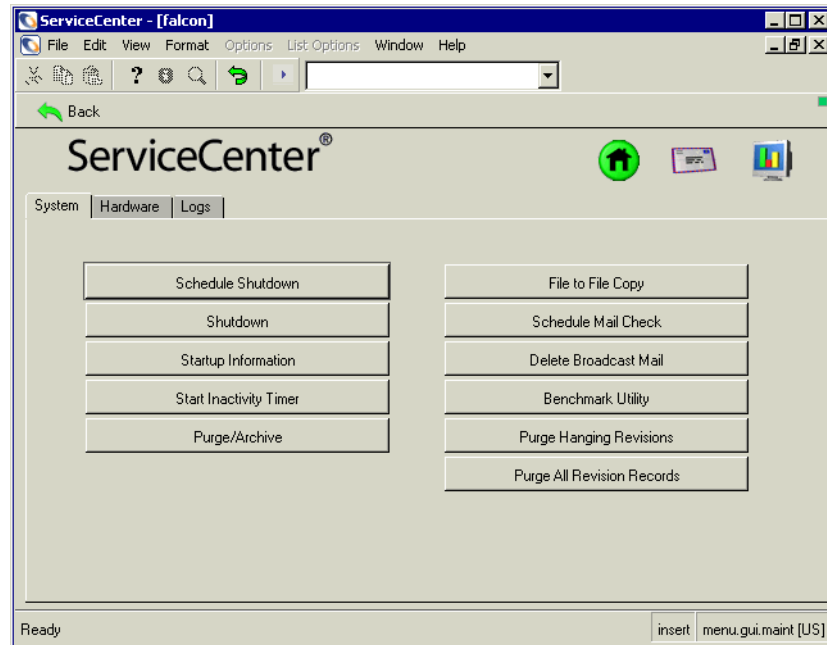


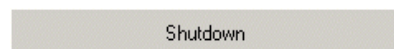
Figure 1-5: ServiceCenter Maintenance menu

- 3 In the System tab, click **Shutdown**.
A system shutdown form is displayed listing the system status.
- 4 Click **Shutdown NOW** to shut down the system without advising your users.
- 5 After the warning prompt is displayed, click **Confirm** to shutdown ServiceCenter service without notifying your users.
- 6 Click **Status** to display the System Status window.

Delayed Shutdown

To delay the shutdown of ServiceCenter:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Maintenance**.
The ServiceCenter Maintenance menu (Figure 1-5 on page 31) is displayed.
- 3 In the System tab, click **Shutdown**.



A system shutdown form is displayed listing the system status.

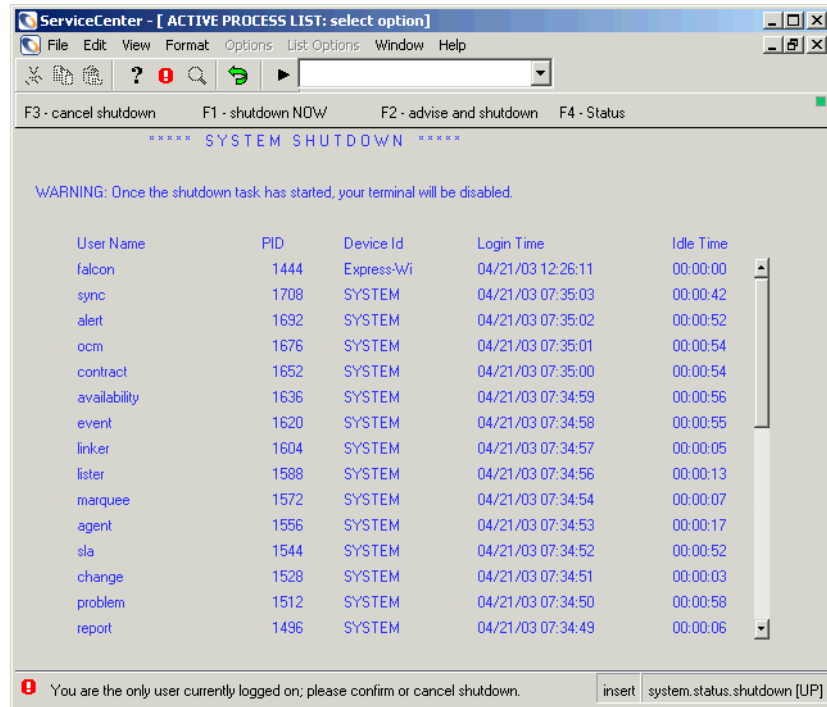


Figure 1-6: System shutdown form

4 Click Advise & shutdown.

A dialog box is displayed asking for the number of seconds to delay before starting the shutdown.

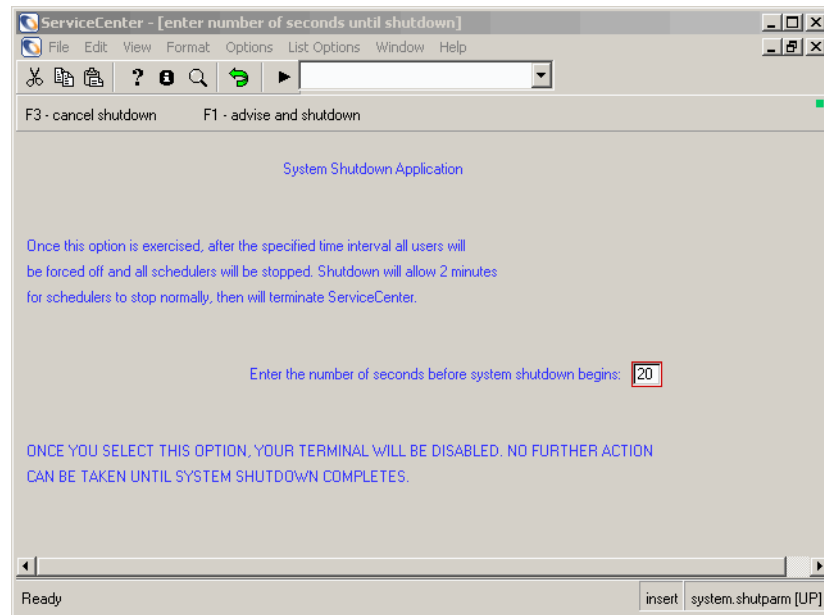


Figure 1-7: Shutdown time setting

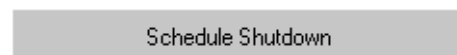
- 5 Enter the number of seconds, and then click **Advise & shutdown**.
Your system will lock up until the client shuts down.

Scheduled Shutdown

You can also schedule a shutdown for a different time. This automatic shutdown can be a one time event, or a regularly scheduled shutdown. For example, you may want the ServiceCenter server to shut down each Friday night.

To schedule a shutdown of a ServiceCenter Server:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Maintenance**.
The ServiceCenter Maintenance menu is displayed (Figure 1-5 on page 31).
- 3 In the System tab, click **Schedule Shutdown**.



An automatic shutdown form is displayed.

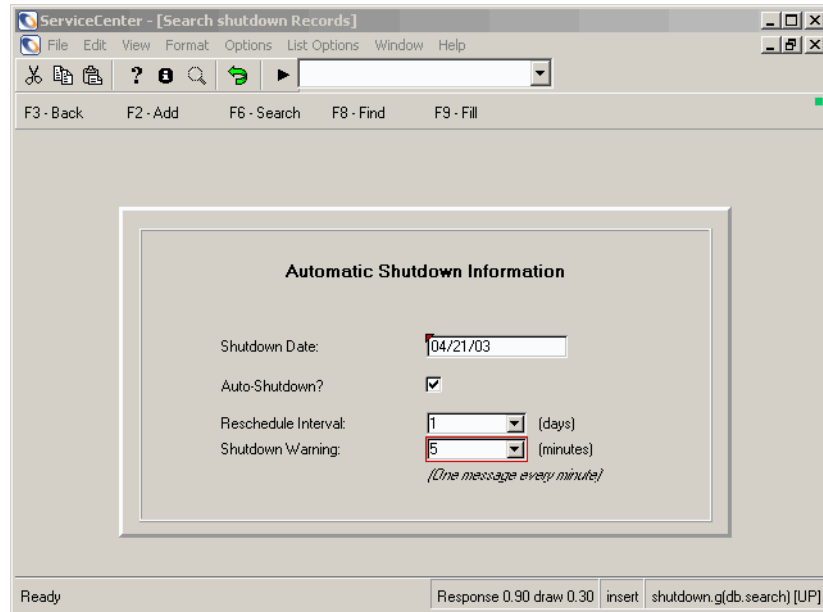


Figure 1-8: Automatic shutdown form

- 4 Complete the following fields to configure the shutdown:

Field	Description
Shutdown Date	Date you want the shutdown to occur. The format is: mm/dd/yy HH:MM. You can use the Fill button to place the current date and time in the field, which you can modify to the date and time of the shutdown. If a shutdown record already exists, click Search.
Auto-Shutdown	Activates the automatic shutdown for the set date, time and interval, if set.
Reschedule Interval	Number of days between automatic, scheduled shutdowns. You can use the down arrow to select an interval.
Shutdown Warning	Number of minutes before the shutdown in which ServiceCenter should issue a warning to the users of the impending shutdown. You can use the down arrow to select an interval.

- 5 Click **Add** or press F2.

A message in the status bar states: *Record added to schedule file.*

- 6 From the **Options** menu, select **update schd.**

This action adds the automatic shutdown to the ServiceCenter schedule file.

- 7 Click **Return** to return to the Maintenance menu.



Set Server Control Parameters

There are a number of parameters that clients normally establish for themselves. ServiceCenter includes a central control utility that allows you to set server controls such as Print Options in printing, SC Timer, Help, and the View menu. For example, you can set the Tool bar option as active (1) or inactive (0) to display or not display the Tool bar on your client screens. You can revise these options in the server's Initialization file (*sc.ini* file) to suit your client needs. See the following table for the control parameters you can use to make changes. When the 0 (zero) setting is used, the option will not be selected, disabling the option and leaving it greyed out (unavailable as a menu option to the client). When the 1 (number one) setting is used, the option is active, which means it will be selected and used by the client. Setting these parameters in the server *sc.ini* file disables any individual user control of these parameters.

See the following table for details of the server control parameters.

Server Control Parameters	Descriptions
viewtoolbar:0/1	0 = Set Tool bar option as inactive 1 = Set Toolbar option as active
viewstatusbar:0/1	0 = Set Status bar option as inactive 1 = Set Status bar option as active
viewkeynumbers:0/1	0 = Set Key numbers option as inactive 1 = Set Key numbers option as active
viewtraycaptions:0/1	0 = Set Tray captions option as inactive 1 = Set Tray captions option as active
viewtalltray:0/1	0 = Set Tall tray option as inactive 1 = Set Tall tray option as active

Server Control Parameters	Descriptions
<code>viewdocktrayontop:0/1</code>	0 = Set Dock tray on top option as inactive 1 = Set Dock tray on top option as active
<code>viewactivenotes:0/1</code>	0 = Set Active notes option as inactive 1 = Set Active notes option as active
<code>viewpromptforsave:0/1</code>	0 = Set Prompt for save option as inactive 1 = Set Prompt for save option as active
<code>viewrecordlist:0/1</code>	0 = Set Record list option as inactive 1 = Set Record list option as active
<code>viewattachments:0/1</code>	0 = Set Attachments option as inactive 1 = Set Attachments option as active
<code>clientprinting:0/nnn</code>	0 = Set so that clients logged on to the server use server printing. Print Options cannot be changed nnn = Set so that clients logged on to the server are limited to printing a specified number of pages per report. For example, to limit each report to no more than 30 pages, set the parameter to 30. Print Options cannot be changed
<code>nohelpontfield:0/1</code>	0 = Set Help on field option as active 1 = Set Help on field option as inactive
<code>sctimeramount:n</code>	n = Set timer so that clients logged on to the server are using the heartbeat timer for a specified number of seconds. For example, to have the server check each client every 20 seconds, set the parameter to 20 in the <i>sc.ini</i> file: sctimeramount:20

Changes made to these client parameters are set in the server initialization file (*sc.ini* file). Therefore, options set in the server *sc.ini* file will override the parameters and options set in the client side ini files.

Changing Server Control Parameters in the Initialization (sc.ini) File

The *sc.ini* file on the ServiceCenter Server must be revised to include the server control parameters that you want to change.

To revise the Toolbar view option so that it won't display on your client screens:

- 1 Go to the ServiceCenter Programs file directory.
- 2 Edit the *sc.ini* file with any text editor.

For example, on Windows NT/2000, you can go to **Start>Programs>ServiceCenter>Init file** to open the *sc.ini* file with Notepad. The *sc.ini* file is opened in Notepad (Figure 1-9 on page 38).

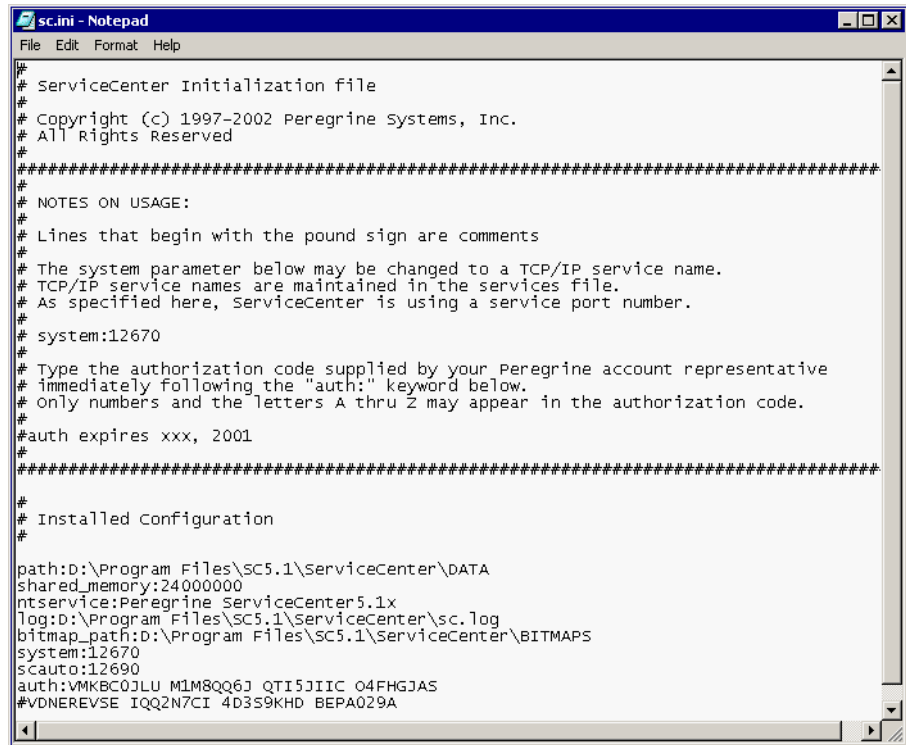
- 3 Add a new line to the parameter field.

Example: Add the following line to the parameter field:

```
viewtoolbar:0
```

- 4 From the File menu, choose Save.
- 5 Exit Notepad.

6 Stop and restart ServiceCenter, so that the system changes will be recognized.



```

sc.ini - Notepad
File Edit Format Help
#
# ServiceCenter Initialization file
#
# Copyright (c) 1997-2002 Peregrine Systems, Inc.
# All Rights Reserved
#
#####
#
# NOTES ON USAGE:
#
# Lines that begin with the pound sign are comments
#
# The system parameter below may be changed to a TCP/IP service name.
# TCP/IP service names are maintained in the services file.
# As specified here, ServiceCenter is using a service port number.
#
# system:12670
#
# Type the authorization code supplied by your Peregrine account representative
# immediately following the "auth:" keyword below.
# Only numbers and the letters A thru Z may appear in the authorization code.
#
#auth expires xxx, 2001
#
#####
#
# Installed Configuration
#
path:D:\Program Files\SC5.1\ServiceCenter\DATA
shared_memory:24000000
ntservice:Peregrine ServiceCenter5.1x
log:D:\Program Files\SC5.1\ServiceCenter\sc.log
bitmap_path:D:\Program Files\SC5.1\ServiceCenter\BITMAPS
system:12670
scauto:12690
auth:VMKBC0JLU M1M8QQ6J QTI5JIIC 04FHGJAS
#VDNEREVSE IQQ2N7CI 4D3S9KHD BEPA029A

```

Figure 1-9: sc.ini file

Note: Your changes will not take effect until the next time you sign back on to ServiceCenter.

If you want to make additional revisions, repeat these steps.

The System Administrator Client Window

All ServiceCenter client windows have a similar look and feel. This provides consistency and simplifies learning the system. Your startup menu may vary, depending on how your ServiceCenter system is customized. As the system administrator, you can use ServiceCenter's Forms Designer to create customized menus for different types of users. For details, see the *Forms Designer* chapter of *ServiceCenter System Tailoring, Volume 1*.

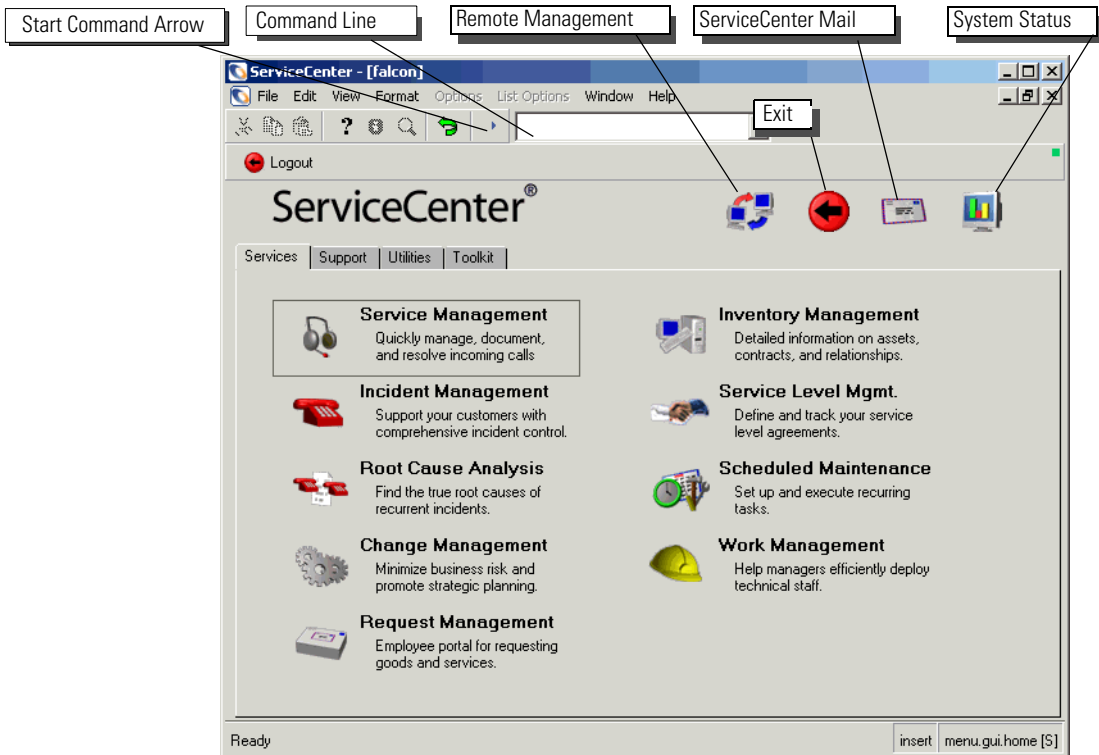


Figure 1-10: System Administrator's home menu

Command Line

The command line is accessible from every screen in ServiceCenter and enables you to enter commands for:

- Accessing files
- Running applications, queries, scripts, and command shortcuts
- Searching command shortcuts
- Changing the currently-active menu in Menu Manager

The command line keeps a record of previously-entered commands. You can choose whether to see the command line by selecting or deselecting **Command Line** from the **View** menu.

For example, to access the *Contacts* file in Database Manager:

- 1 On the system administrator's home menu, make sure that the command line is visible by selecting **Command Line** from the **View** menu.
- 2 Type `*fcontacts` on the command line.
- 3 Click the **Start Command** arrow or press **Enter**.

The *Contacts* file appears.

You set the command line to be available for use at startup by selecting **Activate Command Line on Startup** on the Startup tab of the Operator record. For details, see *Startup Tab (Includes an Operator's System Capabilities)* on page 158.

To set the cursor focus to the command line prompt, press **Shift—Ctrl+L**.

For a list of command line prompt calls you can enter on the command line as well as their functions, see *Command Line Prompt Calls* on page 313.

System Buttons

Field	Description
Remote Management	Access Peregrine's InfraTools Remote Management product.
Exit	Logs you out of the current ServiceCenter client session.
ServiceCenter Mail	Accesses the ServiceCenter internal mail utility.
System Status	Accesses the system status list to display status information about users and processes.

Services Tab

Use the Services tab (Figure 1-10 on page 39) to access the main ServiceCenter applications. Buttons are active for installed applications only.

Support Tab

The Support tab provides access to important support files used throughout ServiceCenter. For details on these files, refer to *Chapter 3, Support Files*.

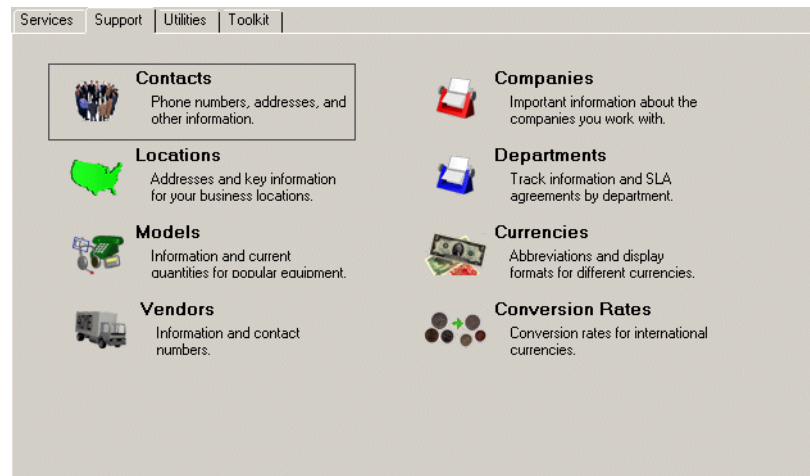


Figure 1-11: Support tab—ServiceCenter support files

Utilities Tab

Use the Utilities tab to access ServiceCenter administrative utilities. You can access other key ServiceCenter features, such as operator records, the link file, and Format Control, through this tab. You'll find the administrative functional instructions for starting, setting up, and managing ServiceCenter in this guide.



Figure 1-12: Utilities tab—utilities used to administer ServiceCenter

You'll also find instructions for using database tools, support files, and some advanced administrative utilities. The following information is also available for edit by the system administrator. To get to this information, go to the Information/Security/Insight tab of the Administration button.

Information

The information that can be edited by a system administrator in the administrative utilities and obtained by users from within ServiceCenter include:

- System Bulletin
- Run Report
- Print Queue
- Distribution

System Bulletin

System Bulletin is used by the system administrator to edit the system bulletin that is displayed for users.

To access the system bulletin as a help desk analyst:

- 1 Log on as BOB.HELPDESK.
- 2 Click the View System Bulletin button at the top of the menu to view the active 'hot' incidents (Figure 1-13).

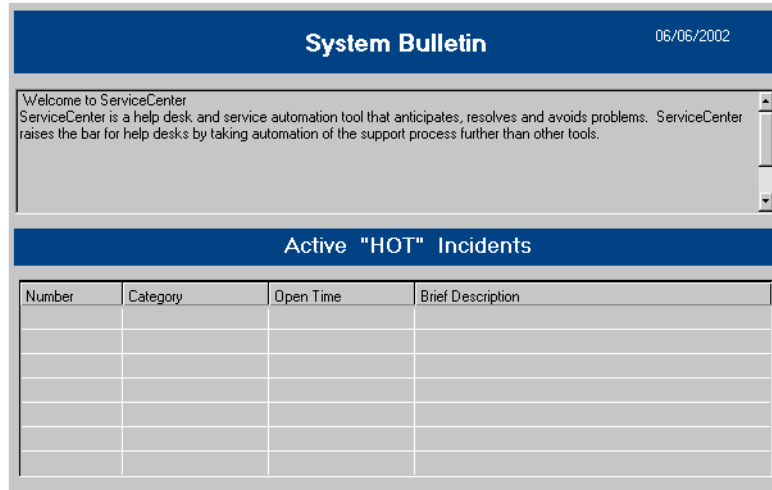


Figure 1-13: Viewing the System Bulletin

Run Report

Run Report is used to run a ServiceCenter system report that was previously created in Report Writer. For more information on creating, using, and running reports from Report Writer, see the *Report Writer* chapter in *System Administrator's Guide, Volume 2*.

Print Queue

Prior to client side printing, all printing was done (and can still be done) through a printer via the server. This generally meant a Unix or OS/390 server. The pages to be printed were stored in the "Print Queue" file until the print spooler background processor ran and actually printed the pages. The **Print Queue** button allows you to see if there is anything in the print queue waiting to print or if there is anything not being processed. When you press **Enter** on the Spool Header page, any unprinted pages are displayed.

Distribution

Distribution is an access point into the `distgroup` file, which allows you to define users as recipients and type of print or message delivery. Once a group is defined with a list of recipients and type of delivery, users can send reports from ReportWriter and annotated messages to other ServiceCenter users via print, email, fax, or page. This distribution capability is also built into Change Management and Incident Management.

The following fields are used to create a distribution group within the `distgroup` file.

Field	Description
Group Name	This group identifies a distribution group to whom a ReportWriter report is printed or a mail message is sent.
Type	Method of print or mail delivery. <ul style="list-style-type: none">■ Change (Change Management)■ Email■ FAX■ Page■ Problem (Incident Management)
Operators/Contacts	This field contains a list of users to whom the reports or message is to be sent. The names in the list must be ServiceCenter operator names or contact names.

Toolkit Tab

Use the Toolkit tab to access the database, modify ServiceCenter forms, and view applications with the RAD editor. These are the applications used to customize ServiceCenter.

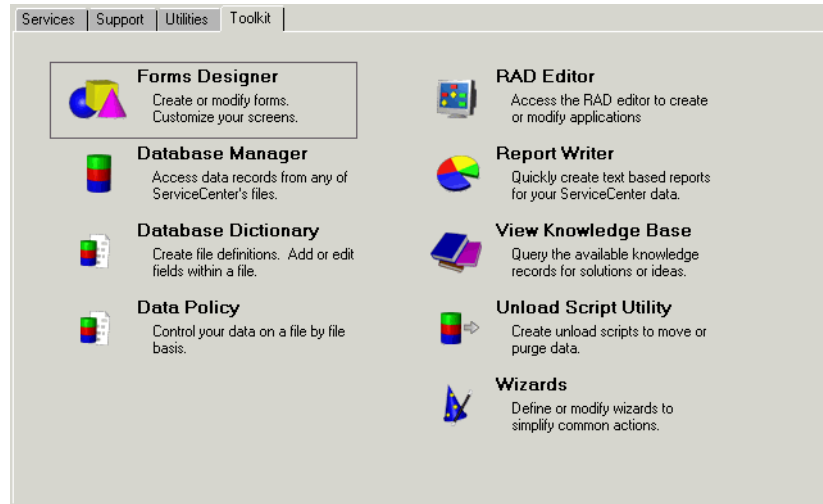


Figure 1-14: Toolkit tab—applications used to customize ServiceCenter

Logout Button



The Logout button logs you out of the current ServiceCenter client session. This button is the same as the Exit button.

Launching Network Discovery Applications from ServiceCenter

You can also access certain Network Discovery (formerly called InfraTools Network Discovery (IND)) functions from Incident Management, Inventory/Configuration Management, and Change Management.

The Network Discovery function is launched from the Options menu of a record in these applications. When the option is selected, the Web browser is launched and an HTTP request is sent to the Network Discovery network appliance. The Network Discovery login procedure then begins.

See Figure 1-15 for a breakdown of how ServiceCenter and Network Discovery integrate.

See the *Network Discovery User's Guide* for information about using Network Discovery.

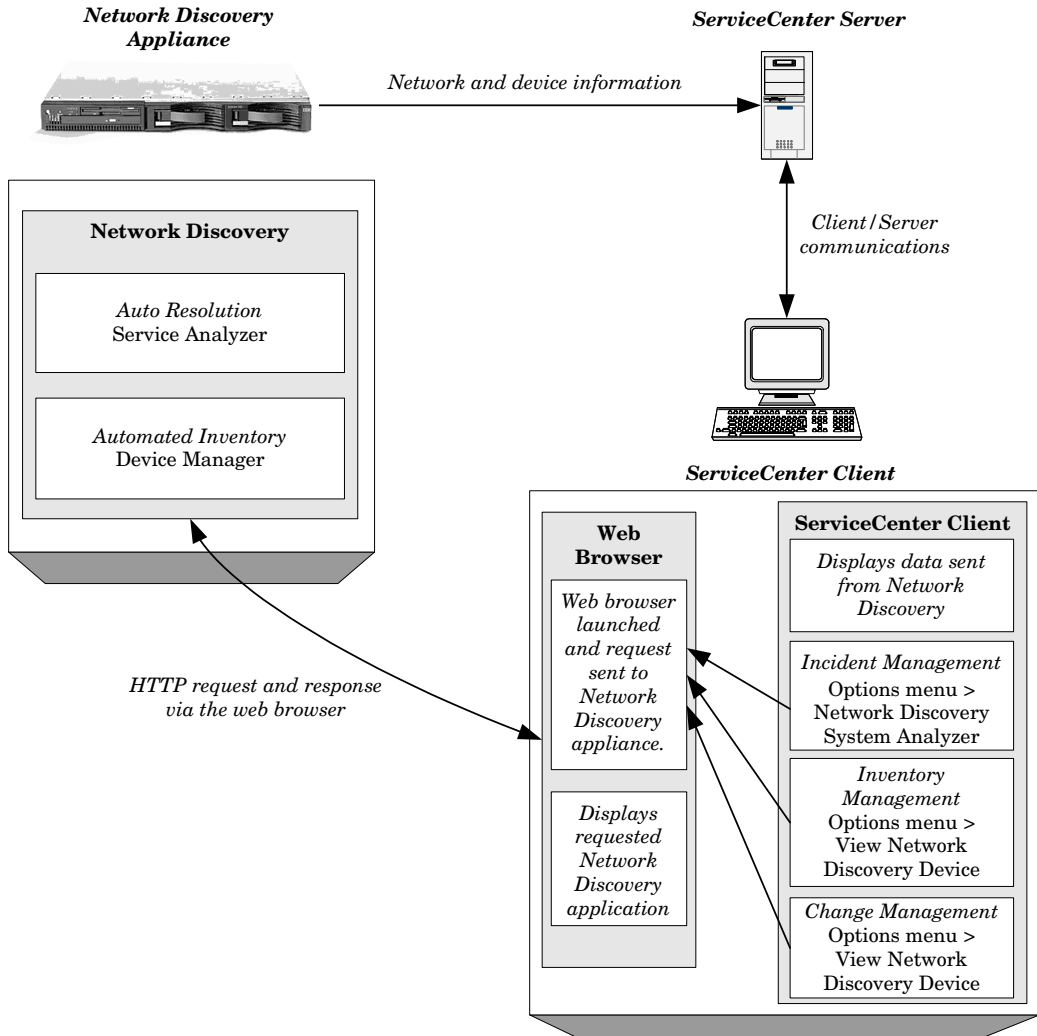


Figure 1-15: Launching Network Discovery from ServiceCenter

Setting Up ServiceCenter to Launch Network Discovery Functions

To configure the Company Record to launch Network Discovery functions:

Important: You will need to shut down and restart your ServiceCenter server to activate this function.

- 1 Log on as an administrator.
- 2 Select the Utilities tab in the main menu.
- 3 Click Administration.
- 4 Click **System Wide Company Record** in the Information/Security/Insight tab.
- 5 Enter the path to the Network Discovery appliance in the Network Discovery System field.

Note: The *http://* and the trailing slashes are not needed. You need only to enter the machine and any path extensions.

- 6 Click Save.
- 7 Click OK to exit the Company Record.
- 8 Log out of ServiceCenter.
- 9 Stop and restart your ServiceCenter server.

ServiceCenter System Status

When you access the System Status window, the `system.status.list` form appears showing a current list of started background processes and all logged on users. Some of the tasks you can perform from the System Status window include, but are not limited to:

- Check the status of a user or background task
- Halt a user's session or task
- Check on system locks
- Send out broadcast messages

As system administrator, you can check the status of your ServiceCenter system, including who is currently logged on and what processes are running, by accessing the System Status window (Figure 1-17 on page 49).

For more information on background processes, see *Background Processes* on page 50.

Access the System Status window, using one of two methods:

- Command line
- System button



Figure 1-16: System Status button in the home menu

Displaying system status from the command line

To display a system status from the command line:

- 1 On the system administrator's home menu, make sure that the command line is visible by selecting **Command Line** from the **View** menu.
- 2 Type **status** on the command line.
- 3 Click the **Start Command** arrow or press **Enter**.

The System Status window appears (Figure 1-17 on page 49).

Displaying system status from the system button

To display the System Status window (Figure 1-17 on page 49), click **System Status** in the system administrator's home menu (Figure 1-16 on page 48).

From this form, you can check on the status of a user or background task, kill the user's session or the task, check on locks, send out a broadcast message, and so on. The following shows connections made from an OS/390, NT/2000/XP server, or Unix.

The screenshot shows the ServiceCenter application window titled "ServiceCenter - [** select option **]". The window contains a menu bar (File, Edit, View, Format, Options, List Options, Window, Help) and a toolbar with various icons. Below the toolbar, there is a "F3 - Back" button and a status bar indicating "TOTAL USERS: 1 - use Refresh Display to refresh statistics".

The main area of the window is divided into two sections. On the left is a vertical list of buttons: Refresh Display, Start Scheduler, Broadcast, Show Locks, Display Options, System Monitor, Command List, Summary, and Execute Commands. On the right is a table with the following columns: Command, User Name, PID, Device ID, Login Time, and Idle Time. The table contains 17 rows of data, including system processes like spool, report, problem, change, sla, agent, falcon, marquee, lister, linker, event, availability, contract, ocm, alert, sync, and JOE.ADMIN.

Command	User Name	PID	Device ID	Login Time	Idle Time
	CLIENT-12670	944	SYSTEM	04/28/03 09:50:46	00:00:01
	spool	1376	SYSTEM	04/28/03 09:50:47	00:01:32
	CLIENT-12690	1492	SYSTEM	04/28/03 09:50:48	00:00:02
	report	1524	SYSTEM	04/28/03 09:50:48	00:00:27
	problem	1432	SYSTEM	04/28/03 09:50:49	00:00:28
	change	1508	SYSTEM	04/28/03 09:50:50	00:00:28
	sla	1540	SYSTEM	04/28/03 09:50:52	00:00:27
	agent	1448	SYSTEM	04/28/03 09:50:53	00:00:23
	falcon	1548	Express-Windows 2000 Professional	04/28/03 09:50:53	00:00:00
	marquee	1580	SYSTEM	04/28/03 09:50:54	00:00:23
	lister	1596	SYSTEM	04/28/03 09:50:55	00:00:21
	linker	1572	SYSTEM	04/28/03 09:50:56	00:00:20
	event	1608	SYSTEM	04/28/03 09:50:57	00:00:22
	availability	1612	SYSTEM	04/28/03 09:50:58	00:00:21
	contract	1620	SYSTEM	04/28/03 09:50:59	00:00:19
	ocm	1624	SYSTEM	04/28/03 09:51:00	00:00:18
	alert	1712	SYSTEM	04/28/03 09:51:02	00:00:17
	sync	1672	SYSTEM	04/28/03 09:51:03	00:00:17
	JOE.ADMIN	1804	SYSTEM	04/28/03 09:56:56	00:00:24

At the bottom of the window, there is a status bar showing "Ready" on the left and "Response 0.60 draw 0.40 insert system.status.list.g [S]" on the right.

Figure 1-17: System Status window

Background Processes

Background processes are also known as background agents, schedulers, processors, and background tasks. The background agent's startup entry defines both its sleep interval and the schedule class that it controls.

For example, the linker processor (or agent) sleep time is 60 seconds and the default schedule class is linker. The background agent sleeps for the time defined on its startup entry, and then wakes up and processes any schedule record with the right class and with an expiration time prior to the current date/time. The schedule record defines the RAD application that gets run whenever the background agent processes the schedule record. In linker processing, the application used is **apm.start.linked.close**, which searches for calls related to the incident ticket, posts the resolution to the call, and then updates the status of the call. The schedule record also defines the parameter values that the application needs. The **apm.start.linked.close** application parameters include the incident number of the closed ticket.

The *Background Processes* on page 51 describe the background processes and how they are used.

Background Processes

Process	Description of Process
startup	A collection of background processes that get started automatically when the system loads.
SLA	A process that creates SLA-based alerts.
agent	A process that creates charts, using stored queries. Note: If the queries used are unkeyed, the agent process may use a large amount of CPU time.
alert.startup (Problem)	A process that is used to manage messages and problem alerts.
availability.startup (Availability)	A process that is used to determine asset availability. Note: This process pre-dates SLA. It is not typically used anymore.
change.startup (Change)	A process that is used to manage Change events.
contract	A process that manages contract events, such as handle time.
event.startup(Event)	A process that is used to manage asynchronous incoming events (Eventin Queue).
gie.startup(gie)	A process that is used to manage incoming Prim Events. Note: This has not been used since Connect.It! was released.
inactive.startup (inactive)	A process that automatically logs users off ServiceCenter when they have been inactive for a period of time.
linker.startup (Linker-Incident)	A process that is used to manage related calls to an incident that was closed.
lister.startup(Lister)	A process that is used to build global variables, based on definitions in the globallist file. Note: If the queries in the globallist file are unkeyed, this process may use a large amount of CPU time.
marquee	A process that manages static marquee messages.
netview	A process that reads NAPA vsam from Netview.
ocm.startup(OCM)	A process that is used to manage request events.
printer.startup(Spool)	A process that manages server-side print requests.

Process	Description of Process
report.startup(Report)	A process that manages Report Writer reports. It is also used for background import/exports.
scauto.startup (SCAUTO Server)	A bi-directional interface to external applications, such as Tivoli and MAPI Compliant Email.
scemail.startup (SCEMAIL)	An outgoing interface only. Not used in connection with SC Automate.
vsamin	A process that reads to a dataset.
vsamout	A process that writes from a dataset.

Column Headings

The System Status table contains the following columns:

Column Heading	Description
Command	Field where the s or k is entered.
User Name	Lists the user or background task as identified in the ServiceCenter database.
PID	Process Identification number, which is assigned when a new thread is opened. These numbers are simply used by ServiceCenter to identify the separate processes. See <i>Feature Buttons</i> on page 53 for more information on the numbers that display in this field. This information identifies who is running what kind of client or background process.
Device ID	Identifies where the process or session is being run and the type of session.
Login Time	Date and time the process or session was started.
Idle time	Length of time since an action took place in the process or session.

Feature Buttons

The System Status window contains a series of buttons. Some buttons execute a function, while others access forms to provide more information or functionality.

The following features are discussed in this section:

- *Refresh Display* on page 53
- *Start Scheduler* on page 53
- *Broadcast* on page 55
- *Show Locks* on page 56
- *Display Options* on page 56
- *System Monitor* on page 58
 - *System Monitor Access Buttons* on page 59
- *Command List* on page 66
- *Summary* on page 67
- *Execute Commands* on page 68

Refresh Display

Clicking **Refresh Display** (Figure 1-17 on page 49) updates the table with current system information.

Start Scheduler

Clicking **Start Scheduler** (Figure 1-17 on page 49) allows you to start ServiceCenter server background processes from a list of available processes (Figure 1-18 on page 54).

Note: The scheduler can be started only from a ServiceCenter client (which includes Java) or in text-mode.

To start the scheduler from a ServiceCenter client:

1 Click Start Scheduler.

A list of available background processes is displayed.

Name	Description
SLA	SLA background agent
agent	query/chart agent
alert.startup	IM alert and message processor
availability.startup	availability processor
change.startup	CM alert/notification processor
contract	contract background agent
event.startup	Event Services processor
gie.startup	Generic Input Event Services processor
inactive.startup	dismiss inactive users
linker.startup	Problem/Incident Sync Task
lister.startup	Global List Builder Routine
marquee	marquee agent
netview	NetView Agent
ocm.startup	OCM processor
printer.startup	print scheduler
report.startup	report processor
scauto.startup	SCAUTD startup
scemail.startup	SCEMAIL startup
startup	system startup default
vsamin	VSAM file reader
vsamout	VSAM file writer
alert.processor	Standard Alert processor
SCEmail	send external email from eventout table
Sync	

Figure 1-18: Start Scheduler QBE

2 Double-click the process you want to start, or select the process and press Enter.

You are returned to the status form with the newly started task displayed at the bottom of the list. A message in the status bar states: *System background scheduler: event started at: mm/dd/yyyy 00:00:00.*

Broadcast

Clicking **Broadcast** (Figure 1-17 on page 49) allows you to send a message (Figure 1-20 on page 56) to all currently logged-on ServiceCenter users in your system.

To send a message using the Broadcast feature:

- 1 Click **Broadcast**.

A form is displayed in which you may create and send a message.

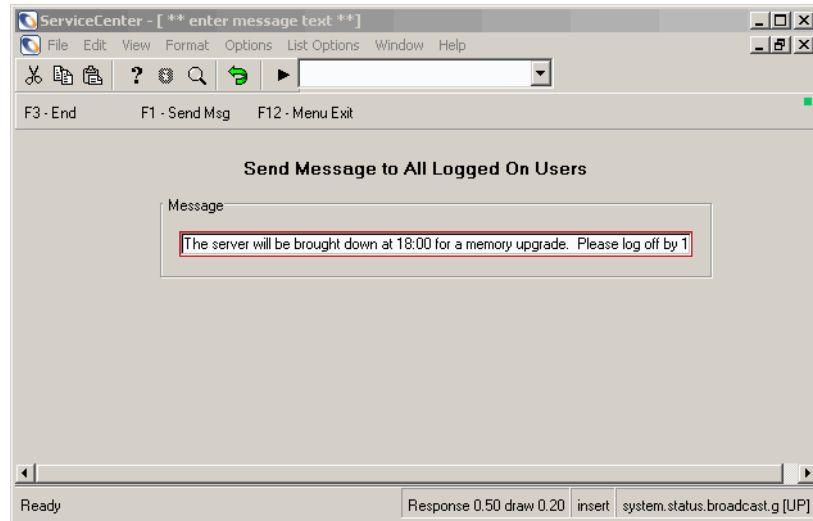


Figure 1-19: Broadcast message

- 2 Enter the message in the Message box.
- 3 Click **Send msg**.
You are returned to the System Status console. Your message is displayed in the status bar of the form.
- 4 To cancel the message before sending it, click **Menu exit** and return to your original entry point (home menu).

Show Locks

Clicking Show Locks (Figure 1-17 on page 49) displays a list of objects (Figure 1-20 on page 56) that have been locked.

The screenshot shows a window titled "ServiceCenter - [System Locks]" with a menu bar (File, Edit, View, Format, Options, List Options, Window, Help) and a toolbar. Below the toolbar is a status bar that says "F3 - Back". The main area is titled "Locked Resource Status" and contains a table with the following data:

Command	Resource Name	Locked At	Locked By	On Device	PID	Exclusive	Locked	Breakable
	agent:spool	04/21/03 07:34:51	spool	SYSTEM	1056	false	true	true
	agent:problem	04/21/03 07:34:51	problem	SYSTEM	1512	false	true	true
	agent:report	04/21/03 07:34:51	report	SYSTEM	1496	false	true	true
	agent:change	04/21/03 07:34:51	change	SYSTEM	1528	false	true	true
	agent:sla	04/21/03 07:34:53	sla	SYSTEM	1544	false	true	true
	agent:agent	04/21/03 07:34:54	agent	SYSTEM	1556	false	true	true
	agent:marquee	04/21/03 07:34:55	marquee	SYSTEM	1572	false	true	true
	agent:liater	04/21/03 07:34:56	liater	SYSTEM	1588	false	true	true
	agent:linker	04/21/03 07:34:57	linker	SYSTEM	1604	false	true	true
	agent:event	04/21/03 07:34:58	event	SYSTEM	1620	false	true	true
	agent:availability	04/21/03 07:34:59	availability	SYSTEM	1636	false	true	true
	agent:contract	04/21/03 07:35:01	contract	SYSTEM	1652	false	true	true
	agent:ocm	04/21/03 07:35:02	ocm	SYSTEM	1676	false	true	true
	agent:alert	04/21/03 07:35:03	alert	SYSTEM	1692	false	true	true

At the bottom of the window, the status bar shows "Ready" on the left and "Response 0.60 draw 0.30 insert system.status.locks.g [UP]" on the right. There is also a button labeled "Execute Commands" on the left side of the table area.

Figure 1-20: Locked Resources form

Display Options

Clicking Display Options (Figure 1-17 on page 49) displays a setup menu (Figure 1-18 on page 54) to configure the System Status display. Options are available in the framed central area of the screen and in the system tray.

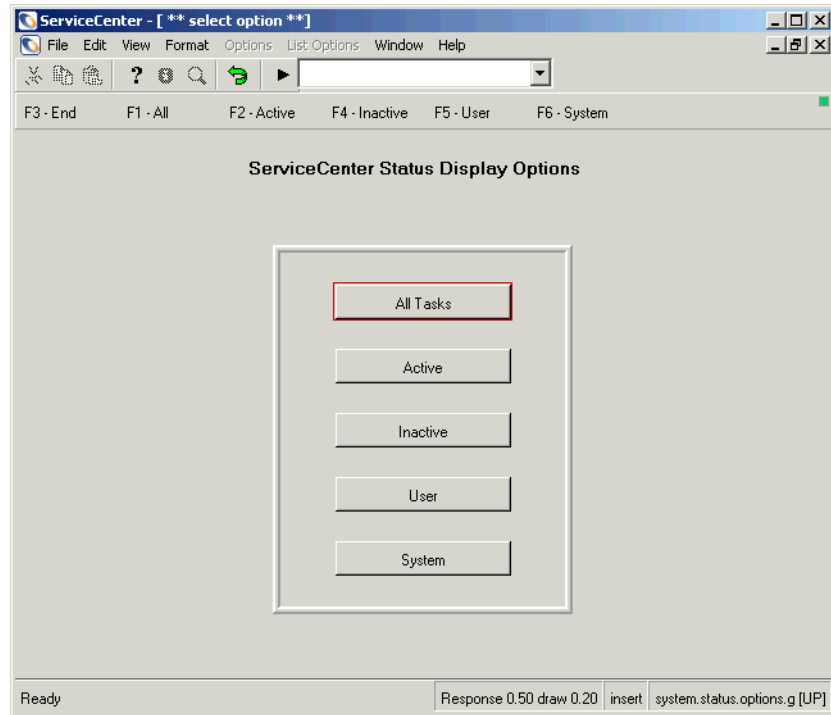


Figure 1-21: Display options

Option Buttons

Button	Action
All Tasks	Displays the status of all the tasks currently running in ServiceCenter.
Active	Displays status of the active processes currently running in ServiceCenter.
Inactive	Displays the status of the inactive processes that still exist in ServiceCenter.
User	Displays the status of idle and active users in ServiceCenter.
System	Displays the status of current background processes in ServiceCenter.

System Monitor

Clicking System Monitor (Figure 1-17 on page 49) displays statistics on the impact of ServiceCenter processes. The Main User Info form (Figure 1-22 on page 58) is one in a series of forms containing this data.

ServiceCenter - [System Monitor Stats]

File Edit View Format Options List Options Window Help

F3 - back F8 - Refresh

System Monitor - Main User Info

System Totals:

CPU Time (seconds): 90.286

Size of file3 (bytes): 108724224

Memory (bytes): 51847168

Time: 13:01:22

Name	PID	Device Name	Idle Time	Application	Network	Mem %	CPU	Statements Evaluated
spool	1056	SYSTEM	00:00:34	scheduler	10.2.3.23	5	1	29756
CLIENT	1304	SYSTEM	00:00:03		10.2.3.23	4	0	125
CLIENT	1416	SYSTEM	00:00:01		10.2.3.23	4	0	210
falcon	1444	Express-Window	00:00:00	system.monito	10.2.3.23	7	2	100210
report	1496	SYSTEM	00:00:56	scheduler	10.2.3.23	6	1	45134
probleme	1512	SYSTEM	00:00:26	scheduler	10.2.3.23	6	6	255878
change	1528	SYSTEM	00:00:33	scheduler	10.2.3.23	5	1	38815
sla	1544	SYSTEM	00:00:20	scheduler	10.2.3.23	6	6	501887
agent	1556	SYSTEM	00:00:03	scheduler	10.2.3.23	7	21	836312
marque	1572	SYSTEM	00:00:27	scheduler	10.2.3.23	6	1	69492
lister	1588	SYSTEM	00:00:59	scheduler	10.2.3.23	6	52	3825553
linker	1604	SYSTEM	00:00:55	scheduler	10.2.3.23	5	1	38748
event	1620	SYSTEM	00:00:22	scheduler	10.2.3.23	6	4	217962
availab	1636	SYSTEM	00:00:24	scheduler	10.2.3.23	5	1	38815
contrac	1652	SYSTEM	00:00:22	scheduler	10.2.3.23	6	2	101421
ocm	1676	SYSTEM	00:00:23	scheduler	10.2.3.23	6	1	42569
alert	1692	SYSTEM	00:00:21	scheduler	10.2.3.23	5	1	38820
sync	1708	SYSTEM	00:00:17		10.2.3.23	4	0	10

Selected line is row 1 of 18 records

Response 0.110 draw 0.71 insert system.monitor.1.g[sysmon.profile] [UP]

Figure 1-22: System Monitor—Main User Info form

System Monitor Columns

Field	Description
Name	Name of the process or user.
PID	Process ID number.
Device Name	Computer on which the user is operating or the process is running.
Idle Time	Length of time since the process or user last accessed the server.
Application	ServiceCenter application in which the process or user is operating.
Network Address	IP address.
Mem%	Percentage of RAM this user or process is using under ServiceCenter.
CPU%	Percentage of the system's CPU the process or user is using with ServiceCenter.
Statements Evaluated	Number of statements evaluated for the process or user.

System Monitor Access Buttons

Note: The button that activates a window is not displayed with the other buttons, but only is displayed when the view is changed.

Grand Totals—displays the system totals for usage (Figure 1-23 on page 60). The buttons next to these fields display other system statistics.

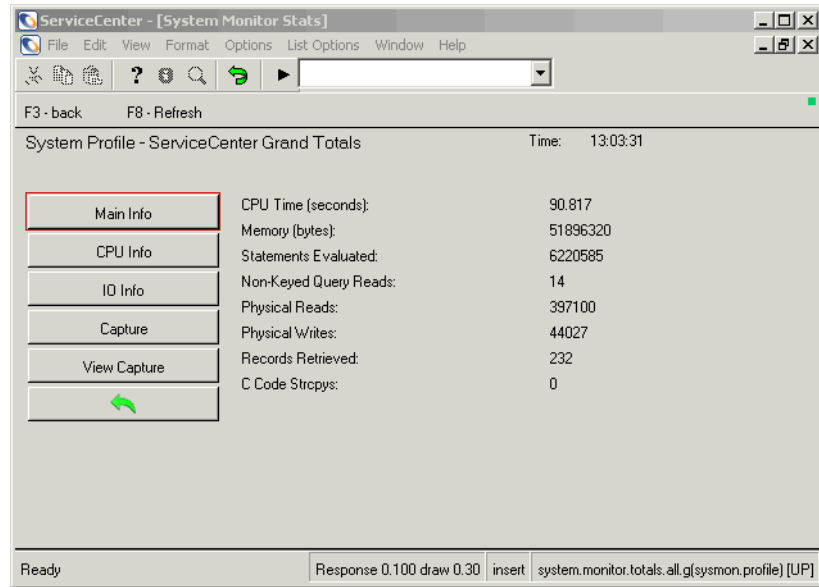


Figure 1-23: System Monitor—Grand Totals

CPU Info —displays a table showing the impact of the processes and users on the system on which they are operating.

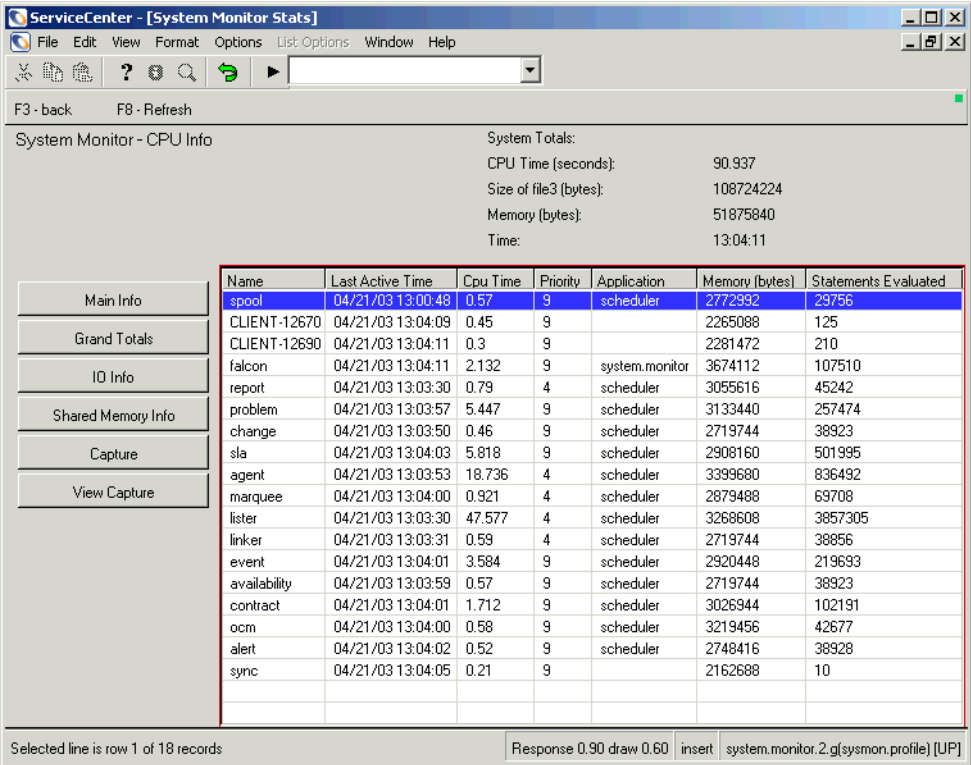


Figure 1-24: System Monitor—CPU Info

IOInfo —displays statistics on the number of operations by each ServiceCenter user or process.

The screenshot shows the ServiceCenter System Monitor - IO Info window. The window title is "ServiceCenter - [System Monitor Stats]". The menu bar includes File, Edit, View, Format, Options, List Options, Window, and Help. The toolbar contains icons for back, refresh, help, search, and navigation. The main area displays "System Monitor - IO Info" and "System Totals:" with the following values:

- CPU Time (seconds): 22.838
- Size of file3 (bytes): 108724224
- Memory (bytes): 52297728
- Time: 07:51:58

Below the system totals is a table with the following columns: Name, Statements Evaluated, String Copies, Physical Reads, Physical Writes, Non-Keyed Queries, and Screen ID. The table contains 18 rows of data for various users and processes.

Name	Statements Evaluated	String Copies	Physical Reads	Physical Writes	Non-Keyed Queries	Screen ID
report	34579	0	2106	236	1	0
CLIENT-12690	125	0	191	0	0	0
spool	27529	0	1266	14	0	0
CLIENT-12670	125	0	214	0	0	0
problem	86981	0	5834	1416	1	0
change	27740	0	951	14	0	0
falcon	117198	0	4616	261	9	2
sla	68449	0	5821	118	0	0
agent	100212	0	8283	810	0	0
marquee	31904	0	1005	80	0	0
lister	510365	0	26494	1424	3	0
linker	27660	0	749	14	0	0
event	38551	0	1649	366	0	0
availability	27655	0	748	14	0	0
contract	34399	0	1389	172	0	0
ocm	31409	0	956	36	0	0
alert	27660	0	748	14	0	0
sync	10	0	28	0	0	0

At the bottom of the window, there is a status bar that reads "Selected line is row 1 of 18 records" and a command line: "Response 0.111 draw 0.60 insert system.monitor.3.g(sysmon.profile) [UP]"

Figure 1-25: System Monitor—IO Info

Shared Memory Info—displays the memory allocation specifics for your ServiceCenter system.

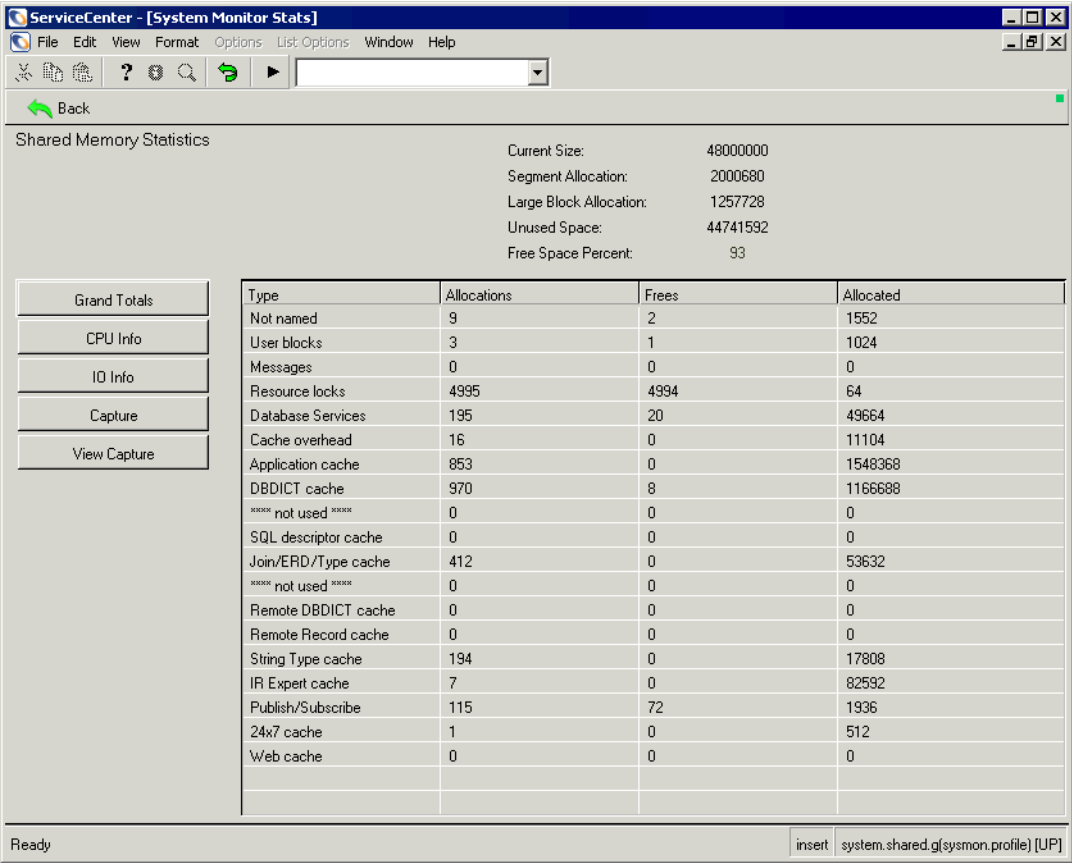


Figure 1-26: System Monitor—Shared Memory Info

Capture —allows you to set up regularly scheduled snapshots (Figure 1-27 on page 64) of the system monitor information. You can set a **Begin Time** and **Repeat Interval**. Click **Schedule** to set the capture.

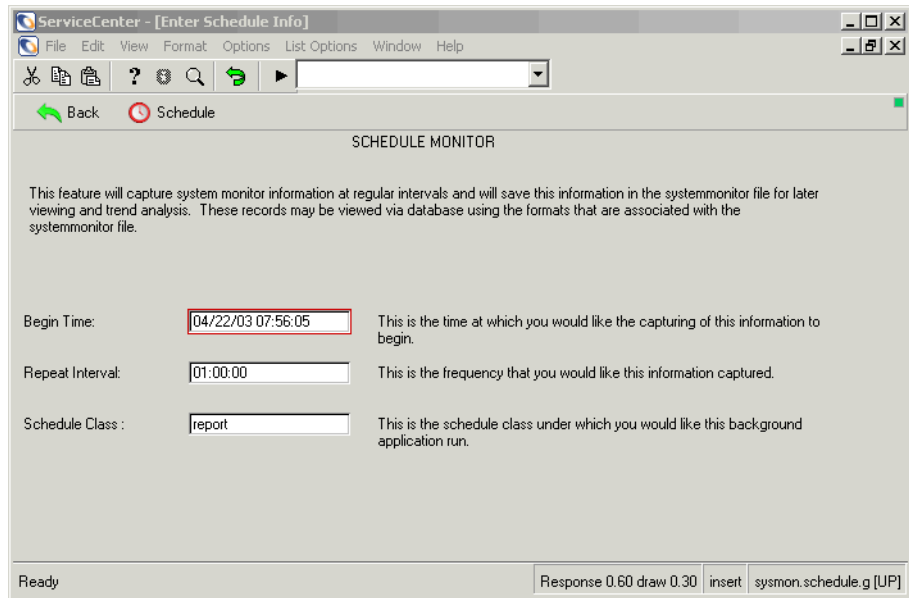


Figure 1-27: System Monitor—Capture Schedule Monitor

Command List

Clicking Command List (Figure 1-17 on page 49) displays a read-only form describing the s and k commands used in the System Status Utility.

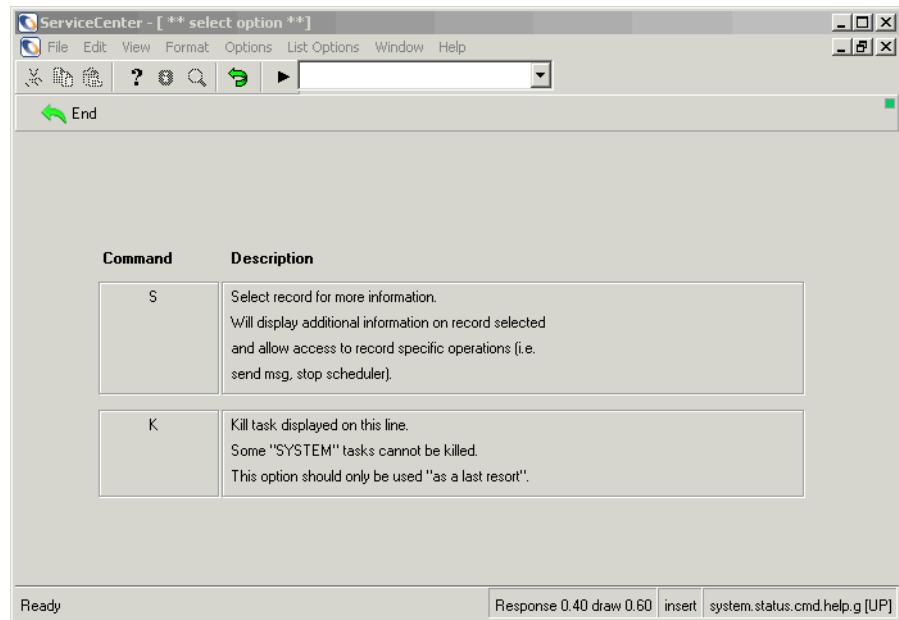


Figure 1-29: Command descriptions

Command List Descriptions

Command	Description
S	Type S to select a record for more information. Displays additional information about the record selected and allows access to specific operations within the record, such as, send message. Note: Only one record can be selected at a time.
K	Type K to kill (end) a task. You can enter K on multiple tasks lines to end multiple tasks. Note: Some system tasks cannot be killed. Note: This option should only be used as a last resort.

Summary

Clicking **Summary** (Figure 1-17 on page 49) displays the **System Status Recap** form (Figure 1-30 on page 67). The System Status includes:

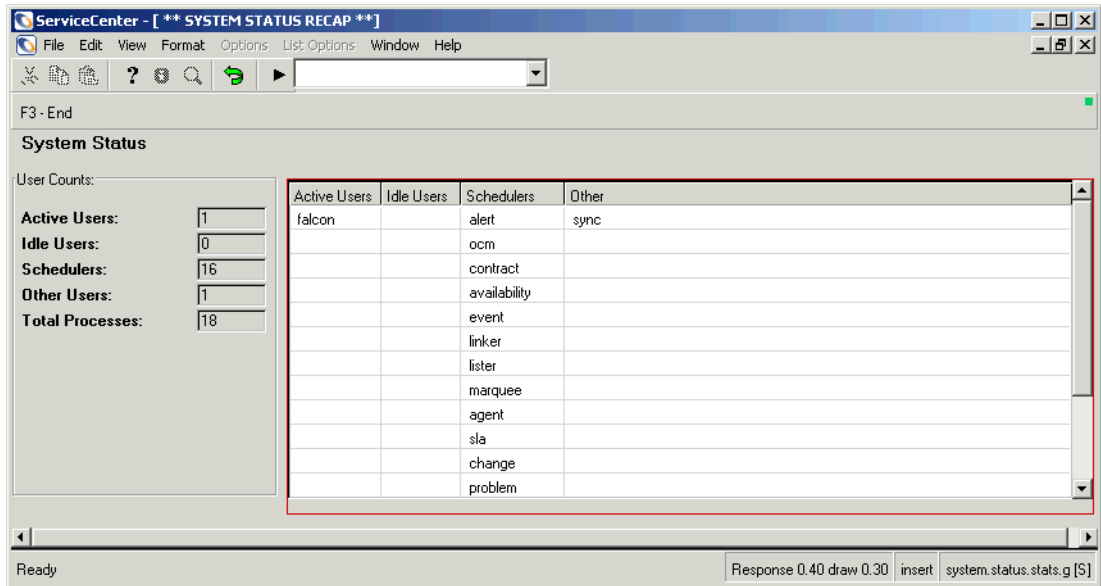


Figure 1-30: System Status Recap

Field	Description
Total Processes	Provides the number of users and background processes currently running.
Active Users	Provides the number of active users and lists the names of those users.
Idle Users	Provides the number of users who are logged on but inactive. The names of those users are also listed.
Schedulers	Provides the number of schedulers currently active and lists those schedulers.
Other Users	Provides the number of other ServiceCenter users.
Other	Provides the names of other ServiceCenter processes that are running.

Execute Commands

The Execute Commands button (Figure 1-17 on page 49) instructs the System Monitor to execute the `s` or `k` command that has been placed next to a user or process in the System Monitor list (Figure 1-31 on page 68).

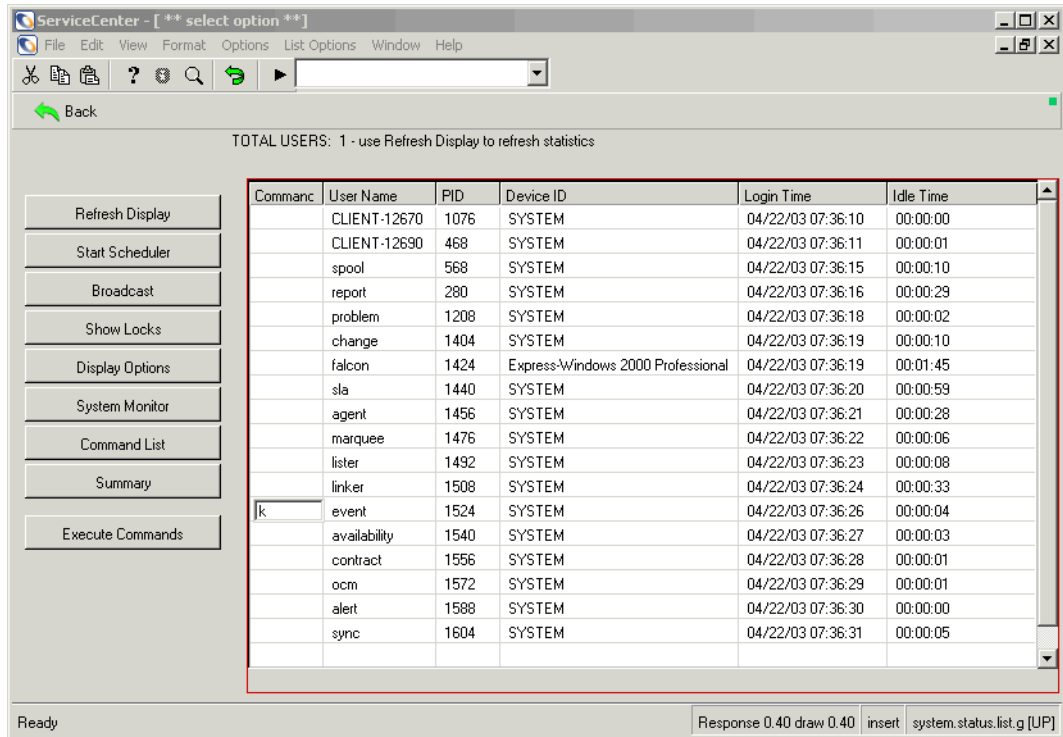


Figure 1-31: Command for killing a process

To execute an operation on a user session or background task:

- 1 Place the cursor in the **Command** column next to the listed task or user.
- 2 Enter the command you want to execute:
 - Type `s` next to a user session or task to view application and schedule record details.
 - Type `s` next to a user session to view details of the application that the session is running.
 - Type `s` next to a background process to see a list of all schedule records currently executing or awaiting execution on this process.
 - Type `k` next to a user or task to kill that user's session or the task.

3 Click Execute Commands.

- If `s` is executed, a form is displayed providing the status of the item.
- If `k` is executed, a confirmation message is displayed in the status bar.

File Attachments and OLE Containers

An *OLE* (Object Linking and Embedding) *container* is a Forms Designer widget that permits users to embed pertinent files from other applications directly into a ServiceCenter record. When a file is attached to a record in this manner, it may be opened in the application that created it directly from the record by double-clicking on the button displayed in the OLE container field.

OLE containers are used in the Attachments tabs of the following records in ServiceCenter:

- change requests
- incident tickets
- device records
- service contracts
- contact records
- SLA records

You may use an OLE container to attach a wide range of file types, such as spreadsheets, text files, image files, and flow diagrams. These files can be opened by any ServiceCenter user who can access the record.

Note: With ServiceCenter 4.0 or later, attachments are handled as file attachments instead of OLE objects. File attachments are supported in OS/390 (Windows mode only) and Windows, OS/2, and Macintosh Windows and Java clients. Windows and Java clients can also access and launch existing OLE objects from earlier releases of ServiceCenter. OS/2 and Macintosh Java clients can access OLE objects from earlier releases of ServiceCenter, but cannot launch them.

Attaching Files

To attach files, the Attachment option in the *sc.ini* file must be turned on. This is the default. For details, see the `viewattachments` parameter described in the *Technical Reference*.

There are two methods for attaching files to an OLE container:

- Inserting using a menu command
- Drag-dropping

Insert Command

You may either insert an existing files or create a new file to insert.

To create a new file to insert:

- 1 Right-click the Attachment tab, and choose **Insert Object** from the shortcut menu.

A dialog box is displayed, showing a list of possible objects to attach.

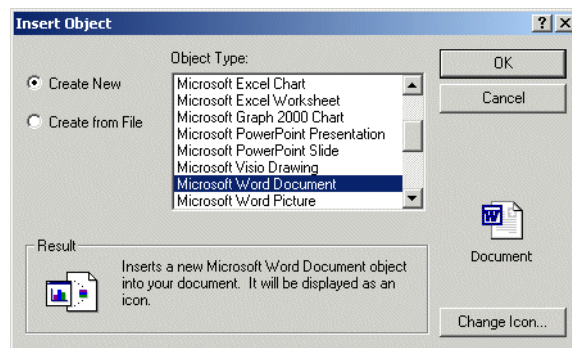


Figure 1-32: Insert Object dialog box

- 2 Click **Create New** to create a new file (this is the default).
- 3 Select a format from the **Object Type** field, and then click **OK**.
A new file (object) is opened in the appropriate application.
- 4 Create the attachment within the application selected.
- 5 From the **File** menu, choose **Close & Return to SC**.

The attachment you have created is displayed as a button in the Attachment tab.

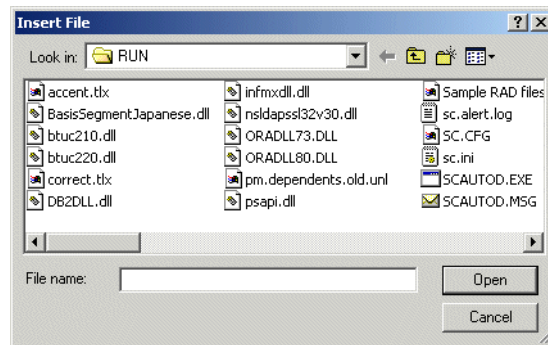
It is not necessary to save the record to save your changes. The file is imbedded into the record when the button is displayed in the tab.

Note: Attachments created with this method have a general label only (for example, Document, Visio).

To insert an existing file:

- 1 Right-click the Attachment tab, and choose **Insert File** from the shortcut menu.

A browse window is displayed from which to select an existing file.



- 2 Select the appropriate file in your system.
- 3 Click **Open**.

A button of the object you have selected is displayed in the Attachments tab.

It is not necessary to save the record to save your changes. The file is imbedded into the record when the button is displayed in the tab.

Note: Objects attached to a contract in Contract Management in this fashion carry a generic label as well as the file name.

Dragging-and-Dropping Files

To drag-and-drop files into an OLE container:

- 1 Use a file management utility to open the folder containing the document you want to attach to the contact record or select a file from your desktop.

Be sure that the Attachment tab is visible on your screen.

Note: You can also drag and drop (cut and paste) files from one instance of ServiceCenter to another. Be sure that both instances are open on your desktop and that both Attachments tabs are visible.

- 2 Click the document you want to attach, and drag it into the OLE container in the Attachments tab.

- 3 Release the mouse button, and the button for the document is copied into the white field.

Note: It is not necessary to save the record to save your changes. The document is imbedded into the record when the button is displayed in the tab.

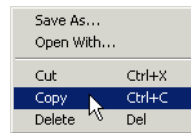
File Management from a Shortcut Menu

Moving Files

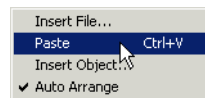
You can cut, copy, and paste files inserted into the Attachments tab of one record into another record by using a shortcut menu.

To move files between records:

- 1 Click the right mouse button on the file you want to move.
A shortcut menu is displayed.



- 2 Select the function you want to perform on the file.
- 3 Open the record in which you want the file to appear.
- 4 Click the right mouse button in the Attachments tab.
A shortcut menu is displayed.



- 5 Select Paste from the menu to copy the file to the new location.

Deleting Files

To delete a file from the Attachments tab, simply select the button and press the Delete key, or select Delete from the shortcut menu.

Note: It is not necessary to save the record to save your changes. The document is removed from the record permanently when the Delete key is pressed.

Defining File Size Limits

To define size limits for OLE attachments, records, and arrays, so that your files do not become too large, you can do the following:

- Limit the size of file attachments that can be placed in an OLE container by defining size limits in three locations within ServiceCenter:
 - Forms Designer
 - Operator record
 - Company record
- Set logical size limits in the Initialization (*sc.ini*) file to prevent record sizes from becoming large and large arrays from being built, unnecessarily consuming memory.

Limiting Attachment File Sizes

Defined size limits affect individual attachments only. You can attach as many documents as you like as long as each one meets the size criteria. Documents previously attached to ServiceCenter forms are not affected by downsizing the limits.

Company Record

The value set in the **Max Attachment Size** field in the company (*info.company.g*) record is the company default. This value is measured in *bytes*. It limits the size of any document any user can attach to any OLE container in the system. (See *System Wide Company Record* on page 196.)

Operator Record

You may override the size limit specified in the Company record with the limits defined in the **Max Attachment Size** field in a user's operator record. (See *Operator Templates* on page 184.) This value defines the maximum size document that the user can attach to any OLE container in ServiceCenter. A value of 0 (zero) in the **Max Attachment Size** property allows this user to attach documents of the size specified for the **Max Attachment Size** value for the Company record. This value is measured in *bytes*.

Forms Designer

A non-zero value specified in Forms Designer overrides any values specified in the Company or Operator record. Size limits are defined in *bytes* in the Forms Designer utility. You may define size limits in Forms Designer for each OLE container that is displayed in the system. (For details on defining OLE container properties, see the *Forms Designer* chapter of *ServiceCenter System Tailoring, Volume 1*.) All users accessing the forms in which such containers appear are subject to the same size limits.

A value of 0 (zero) in the `MaxAttachSize` property in Forms Designer allows users to attach documents of the size specified on the Operator record. If this value is also 0 (zero), users may attach documents of the size specified on the Company record. If this value is 0 (zero) as well, users may attach documents of any size.

Example 1: If the `MaxAttachSize` value specified on the Company record is 0 (zero), the value specified on the Operator record is 6,000, and the value specified for the Ole Container in Forms Designer is 0 (zero), the attachment file size limit is 6,000 per attachment.

Example 2: If the `MaxAttachSize` value specified on the both the Company and Operator records is 0 (zero) and the value specified for the Ole Container in Forms Designer is 12,000, the attachment file size limit is 12,000 per attachment.

Setting Logical Size Limits in the Initialization (`sc.ini`) File

Attachment size for records and arrays is measured in bytes. There are two parameters in the `sc.ini` file that can set logical file limits on the size of records and arrays.

To make the necessary size limit adjustments:

- 1 Stop the ServiceCenter server.
- 2 Go to the ServiceCenter RUN directory, and edit the `sc.ini` file.

Open the `sc.ini` file.

- 3 Add the following line to adjust the size limit for records:

```
recordsizelimit:nnnn
```

Where `nnnn` represents the maximum size for a database record. If this number is not specified in the `sc.ini` file, the default value is 64000 bytes (64K).

- 4 Add the following line to adjust the size limit for the size of arrays:

```
arraysizelimit:nnnn
```

Where nnnn represents the maximum number of entries in an array. If this number is not specified in the *sc.ini* file, the maximum value is set at 89478485.
- 5 Save your changes.

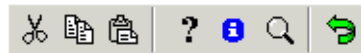
Finding Data in Extended Text Fields

There are numerous extended text fields in ServiceCenter, such as the Incident Details field in an incident ticket, that contain large amounts of data, making it difficult for you to search through the history of a reported incident and find what you need. ServiceCenter includes a find capability that will help you easily find the information you need.

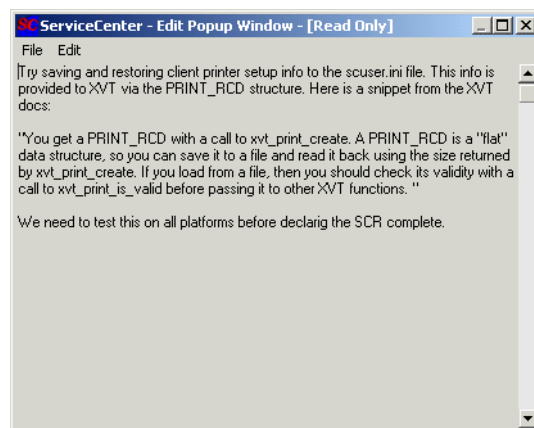
When you're in an extended text field, such as a lengthy description of an incident in Incident Management, you can initiate a search within that field to find the information you need.

To initiate a search of a text field:

- 1 Place your cursor in the extended text field you want to search.
- 2 Press the magnifying glass in the toolbar.



An editing shortcut window is displayed, displaying the selected text.



- From the **Edit** menu select **Find** or press **Ctrl + F**.
A dialog box for searching the text field is displayed.



- Select the appropriate options for your search from the following table.

Field	Description
Find What	Initiates the IR Expert search so that you can locate specific text within the field.
Search	Allows you to search the extended text field and find historical data or comments without having to scroll through multiple lines of text.
Match Case	Allows a search for specific words or phrases that match the 'case' with which they were typed. For example, all capitalized letters and lower case letters should match the original typed text. This helps you to locate instances where acronyms may have been used, helping to limit your search so that you can quickly find what you need.
Find Whole Words Only	Allows the search to find only instances where whole words are used (partially typed words will not be located).
Cancel	Allows you to cancel the search and return to the View Messages window.

- Click **Find Next**.
The first instance of the search will be highlighted.
- Click **Find Next** again to find the next instance of the search.
- When you are finished with your search, exit out of the shortcut editing window.
You are returned to the original field where you started the search.

Automatic Refresh of Record List

When ServiceCenter users are driven by queues of work that are assigned to them, they issue specific queries against the ServiceCenter database for lists of records that need their attention. In ServiceCenter, automatic refresh of record lists has been introduced. You no longer have to manually refresh the record list to get updated display records; queries that have been issued for database lists will automatically refresh the displayed records on the client screen. Any time queried records have been either inserted, updated, or deleted in the database, these changes are automatically incorporated into the queries displayed on the client screen.

The rate, in seconds, at which displayed queries are refreshed on the client screen are set up by the system administrator. There are no defaults in place, so you need to set this up by going into the Forms Designer utility and setting the number of seconds in the **Refresh Rate** field of the Table object properties that will be used to display the data in your Forms. For more details about setting the automatic refresh rate for record lists, see the *Forms Designer* chapter of *ServiceCenter System Tailoring, Volume 1*.

Creating a Hot News Entry for the Knowledge Base

Hot News entries are designed to present “late breaking” information to the help desk analyst, such as server outages, other infrastructure failures, and any form of current information. The *ServiceCenter User's Guide* details how Hot News entries are used along with the other Knowledge Base options.

To create a Hot News entry:

- 1 Select the Toolkit tab in the System Administrator's home menu.
- 2 Click **Database Manager**.
- 3 Enter **core** in the **Form** field. A blank *core.g* form will display (Figure 1-33 on page 78).
- 4 Check the **Hot News** field and click **Search** to perform a *true* query to retrieve a list of all current Hot News items. Select a Hot News item to use as a base to begin creating your new Hot News item.

-or-

Check the **Hot News** box and begin creating your Hot News entry from scratch.

Note: You can also create Common Problem and Error Message entries.

The screenshot shows a window titled "ServiceCenter - [Search Global Knowledge Records]". The menu bar includes File, Edit, View, Format, Options, List Options, Window, and Help. Below the menu is a toolbar with icons for Back, Add, Search, Find, and Fill. The form contains the following elements:

- Entry ID: [Text Field]
- Title: [Text Field]
- Hot News: Common Problem: Error Message: Private:
- Valid From: [Text Field] Valid To: [Text Field]
- Content: [Tabbed Section with sub-tabs: Content, Categorization, Source/Key Info, Keywords]
- TOPIC or QUESTION: [Large Text Area]
- CONTENT or ANSWER: [Large Text Area]
- Status Bar: Ready insert core.g [S]

Figure 1-33: Creating a Hot News item

The fields in the *core.g* form are described below.

Field	Description
Source Filename	The system enters the name of the source file if the Hot News entry is coming from a ticket.
Source Key	Unique identifier in the source file generating the Hot News entry
Secondary Key	Second unique identifier in the source file generating the Hot News entry.
Tertiary Key	Third unique identifier in the source file generating the Hot News entry.
Keywords	Key words to be used within this Hot News entry.

Field	Description
Issue Description	Description of the Hot News entry.
Resolution	Suggested resolution for the announced Hot News item.
Hot News	Check one of the following:
Common Problem	Hot News to flag this entry as a Hot News item
Error Message	Common Problem to flag as a common problem Error Message to flag as an error message
Category	Enter the Category (Asset and/or Incident) affected by this Hot News entry.
Subcategory	Enter the Subcategory (Asset and/or Incident) affected by this Hot News entry.
Product Type	Enter the Product Type affected by this Hot News item.
Company	Enter the company that is being affected by this Hot News entry. The broadcast of this entry will be for this selected company.
Problem Type	Enter the specific Problem Type that is affected by this Hot News entry.
Location	Indicate location where the Hot News entry is applicable. The broadcast of this entry will be for this location only.
Affected Item	Enter the affected device in this Hot News entry.

- 5 Once all the applicable fields are filled in, click **Add**.

When you click the **Hot News** check box, date range fields appear in which you can type dates for the validity of the news.

2 Support Files

CHAPTER

Overview

As the system administrator, you can directly access the following support files (and their options menus) used in the administration of ServiceCenter.

- Contacts (**contacts** file)
- Location (**location** file)
- Model (**model** file)
- Vendor (**vendor** file)
- Company Information (**company** file)
- Department (**dept** file)
- Currency (**currency** file)—discussed in detail in *Service Contract Management* in the *ServiceCenter Application Administration Guide*
- Currency Conversion (**curconvert** file)—discussed in detail in *Service Contract Management* in the *ServiceCenter Application Administration Guide*

File Management

You have access to the support files discussed in this chapter through the Support tab in the administrator's home menu (Figure 2-1 on page 82). You may choose to access these files from the Database Manager; however, this process is slower than the direct button access provided on the Support tab.

As an administrator, you may create, update, and delete records from these files. These procedures vary little between files and are discussed generically at the beginning of this chapter; however, deleting a record in the *model* file requires additional steps. This procedure is presented in detail in *Model File* on page 100.

Accessing a Record

To access an existing record:

- 1 In the system administrator's home menu, click the Support tab.

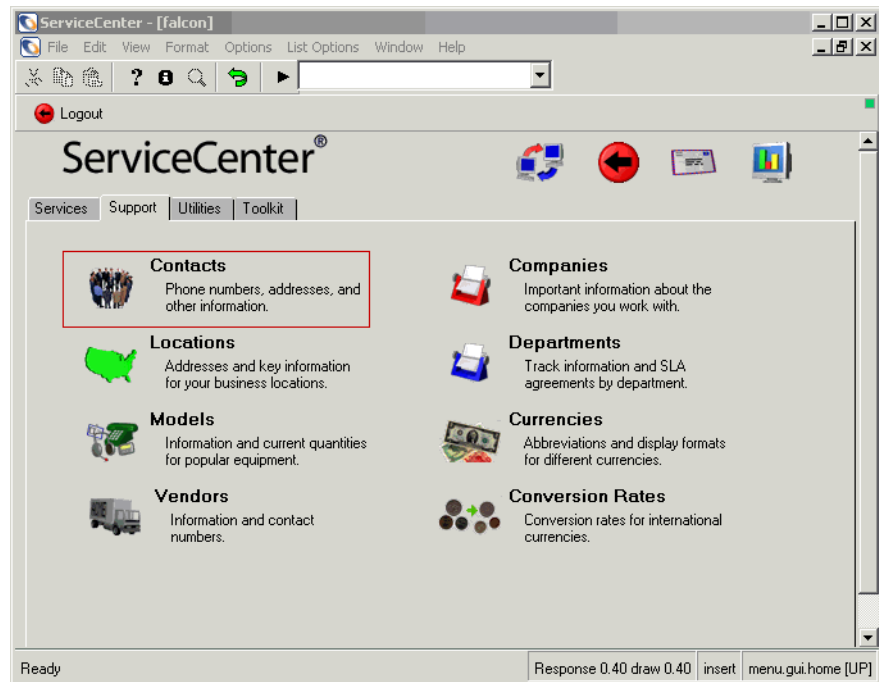


Figure 2-1: Support tab in the home menu

- 2 Click the button of the file you want to access.
A blank record is displayed.
- 3 Access an existing record using one of the following procedures:
 - a Enter known information about the record in a field and click **Search** or press **Enter**.
- or -
 - b Click **Search** and select a record from the record list at the top of the form.
The selected record is displayed.

Creating a Record

As an administrator, you need to add records to the support files from time to time.

To create a record:

- 1 In the system administrator's home menu, click the Support tab (Figure 2-1 on page 82).
- 2 Click the button of a file in which you want to create a record.
- 3 A blank record is displayed.
- 4 Complete as many fields as possible, especially the required fields.



You may use the Fill or ellipsis buttons to complete fields linked to other files.

Note: Refer to the field definitions in each section of this chapter to locate required fields.



- 5 Click **Add** or press F2.
A message in the status bar states: *Record added to the <file name> file.*

Updating a Record

To update an existing record:

- 1 In the system administrator's home menu, click the Support tab (Figure 2-1 on page 82).
- 2 Click the button of the file whose record you want to update.
A blank record is displayed.



- a Enter known information about the record in a field and click **Search** or press **Enter**.

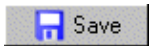
– or –

- b Click **Search** and select a record from the record list at the top of the form.

Note: Make sure the **Record List** option is turned on (checked) in the View menu (**View>Record**).

The selected record is displayed.

- 3 Edit the fields you want to change.



- 4 Click **Save** or press **F2** to save the changes.

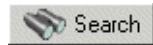
A message is displayed stating: *Record updated in the <file name> file.*

Deleting a Record

To delete an existing record:

- 1 In the system administrator's home menu, click the Support tab (Figure 2-1 on page 82).
- 2 Click the button of the file whose record you want to update.

A blank record is displayed.



- a Enter known information about the record in a field and click **Search** or press **Enter**.

– or –

- b Click **Search** and select a record from the record list at the top of the form.

The selected record is displayed.



- 3 Click **Delete** or press **F6**.

A prompt is displayed asking you to confirm the action.

- 4 Click **Yes** to delete the record.

A message is displayed, stating: *Record deleted from the <file name> file.*

Contacts File

The **contacts** file is used throughout ServiceCenter to provide complete contact information for items or activities such as incident tickets, change requests, and inventory records. Typically, contacts are also associated with certain assets, which simplifies the task of opening a call report, an incident ticket, or a change request.

Contact records may be added or updated by first level support technicians in the process of taking a call. When this occurs, the technician adds only enough information about the contact to open the ticket. The task of completing the contact record is often the responsibility of the user's administrator.

To get to the *Contacts* file, click the Support tab from the ServiceCenter home menu, then click *Contacts*.

Contact No.	Last Name	First Na	Phone	Extensio	Department	Company
BROWN, NIC	Brown	Nicholas	(770) 55	243	ACME/Administration	ACME
BUTLER, RIC	Butler	Richard	(800) 42	328	ACME/Customer Sup	ACME
CHAN, HEAT	Chan	Heather	(619) 45	214	ACME/Executive	ACME
EMPLOYEE,	Employee	Joe	(317) 45	505	PRGN/Marketing	PRGN
EMPLOYEE,	Employee	Marc	(619) 45	505	PRGN/Marketing	PRGN

Contact Information

Business | Address | Contact Numbers | Misc | Comments | Attachments | Portrait

Contact

Contact Name: BROWN, NICHOLAS Last Name: Brown
Employee ID: ACME0005 First Name: Nicholas

Business Information

Primary Asset: ACMEpc012 Valid From:
Company: ACME To:
Dept Name: Administration Company Code:
Title: Sr. Administrative Assistant Cost Center:
Group: Personnel Area:
Shift: day Subarea:
Email: NickBrown@acme.com User Type:
Manager: BUTLER, RICHARD Payroll:
Service Contract: ACME US ServiceCenter ID:
Corp Struct/Div: ACME/Administration Critical User:
Requires Entitlement:

Selected line is row 1 of 29 records insert contacts.qbe.g [S]

Figure 2-2: Contact record

Header Fields

Field	Description
Contact Name	unique key for the contact record (equal to the contact's last name in the out-of-box system).
Employee ID	unique, alpha-numeric identification number of the contact.
Last Name	last name of the contact.
First Name	first name of the contact.

Business Tab

Field	Description
Primary Asset	Asset most commonly associated with this contact. Click Browse to access the asset file and select an asset.
Company	Name of the company for which this contact works.
Depart Name	Name of the department for which this contact works.
Title	Contact's business title (for example, Manager, Sales Rep, Technician).
Group	Name of the group/division for which this contact works.
Shift	Hours this contact works (for example, day, graveyard).
Email	Contact's e-mail address. Note: If you leave the e-mail address field blank, the user will receive no notifications, and the e-mail sender will have no way of knowing this.
Manager	Name of the manager associated with this contact. This field is used by Work Management.
Service Contract	A Contract Management field naming a service contract associated with this contact.
Corp Struct/Div	Department hierarchy for this location taken from the dept file.

Field	Description
Critical User	Client staff who perform vital tasks for some or part of the time. Downtime for these users has a greater business impact than downtime for standard users.
Requires Entitlement	Requires the user to go through an SLA entitlement check when opening a call ticket.

SAP fields

ServiceCenter can be integrated with certain SAP applications through the SCAuto interface available from Peregrine Systems. The following fields are used by ServiceCenter system administrators who are interfacing with SAP human resource applications through SCAuto.

Field	Description
Valid From	Specifies the beginning of the validity period.
To	Specifies the validity end date.
Company Code	An organizational unit within external accounting.
Cost Center	An organizational unit within a controlling area that represents a separate location of cost incurrence.
Personnel Area	An organizational entity representing an area within an organization defined by specific aspects of personnel administration, time management, and payroll.
Subarea	An organizational entity which represents part of a personnel area distinguished from others by unique features of personnel administration, time management, and payroll accounting.
User Type	The type of user. Options are site, home, or mobile.
Payroll	Contact's unique payroll id number.
ServiceCenter ID	The operator name (from the operator file) for contacts that are also ServiceCenter operators.

Address Tab

The screenshot shows a software interface for managing contact records. At the top, there are several tabs: Business, Address, Contact Numbers, Misc, Comments, Attachments, and Portrait. The 'Address' tab is selected. Below the tabs, there are two main sections: 'Business Address' and 'Home Address'. The 'Business Address' section contains several input fields: 'Location' (ACME HQ), 'Location Structure' (ACME/ACME HQ), 'Name' (Chicago HQ), 'Address' (5543 Windy Way), 'Building' (A), 'Floor' (22), 'Room', 'Office/Cube', 'City' (Chicago), 'State' (98765), and 'Country' (USA). There are also 'Hours' fields with 'to' in between. The 'Home Address' section has a single large text input field.

Figure 2-3: Address tab in a contact record

Fields

Fields	Description
Location	Physical location, from the location file, defining the area of the country in which the contact's office is located.
Location Structure	Department hierarchy for this location.
Name	The unique name from the location file naming the facility in which the contact works (for example, atlanta data center).
Address	Complete street address of the contact's place of business.
Hours	Working hours of the contact.
Building	Building number (if any) where the contact's office is located.
Floor	Floor on which the contact's office is located.
Room	The contact's room.
Office/Cube	The contact's office or cube.
Home Address	The complete street address of the contact's home.

Contact Numbers Tab

Business	Address	Contact Numbers	Misc	Comments	Attachments	Portrait
Phone						
Work:		<input type="text" value="(770) 954-4588"/>	Car:	<input type="text"/>		
Extension:		<input type="text" value="243"/>	Portable:	<input type="text"/>		
Home:		<input type="text" value="(770) 529-4998"/>				
Pager						
Number:		<input type="text" value="(770) 953-1142"/>	Name:	<input type="text"/>		
Pin:		<input type="text"/>	Group:	<input type="text"/>		
Mailbox:		<input type="text"/>	Two-Way Paging:	<input type="checkbox"/>		
Type:		<input type="text" value="alphanumeric"/>				
Fax						
Fax Number:		<input type="text" value="(770) 954-4590"/>				

Figure 2-4: Contact Numbers tab in a contact record

Fields

Field	Description
FAX	Fax number for the contact.
Phone	Contact phone numbers, including: work extension, home, car and portable phones.
Pager Information	Complete information on the contact's pager.
Two-Way Paging	SCAutomate function allowing a user to update or close an incident ticket via pager. If this field evaluates to <i>true</i> , the contact possesses two-way paging capabilities.

Misc. Tab

The screenshot shows a software interface with a top navigation bar containing tabs: Business, Address, Contact Numbers, Misc (selected), Comments, Attachments, and Portrait. Below the tabs is a form titled 'Miscellaneous Information' with three dropdown menus: 'Aristocratic Title', 'Language', and 'Form of Address'. Below this is a table titled 'Communication' with two columns: 'Communication Type' and 'Communication Number'. The table is currently empty.

Figure 2-5: Miscellaneous tab in a contact record

Fields

Field	Description
Aristocratic Title	The contact's aristocratic title if applicable. For example, Count or Countess.
Language	An SAP field indicating the contact's principal language.
Form of Address	How the contact is to be addressed (for example, Mr., Mrs., Ms.). The system then assigns the relevant internal key which indicates the employee's gender.
Communication Type	An SAP field describing a type of communication device (for example, cellular phone, fax).
Communication Number	An SAP field containing the number of the corresponding communication device.

Comments Tab

The comments field is an optional field in which you may enter any additional information about the contact that is not already recorded in the record. This data is not used in any other part of ServiceCenter.

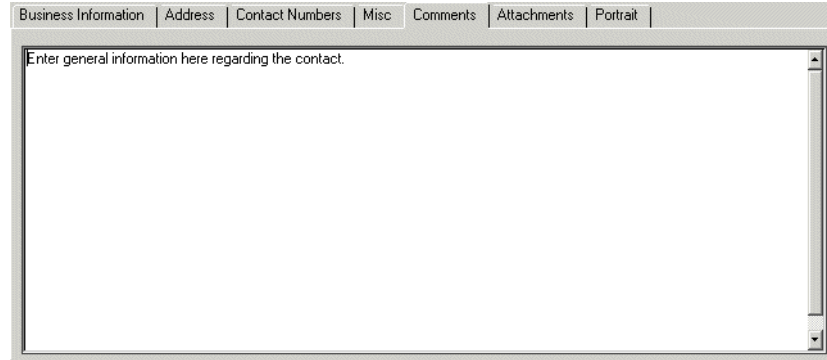


Figure 2-6: Comments tab in a contact record

Attachments Tab

The Attachment tab uses an *OLE container* to display attachments. Attach any documents pertaining to this contact in this tab.



Figure 2-7: Attachments tab in a contact record

There are two options for attaching documents to a contact record:

- **Pop-up menu:** Right-click the Attachments tab field, and select Insert from the shortcut menu.
- **Drag-dropping documents:** Drag documents from a file folder directly into the Attachments tab.

Refer to Chapter 2, *OLE Containers* for a complete discussion of attaching documents to an OLE container.

Note: Currently, OLE containers are supported only in Windows, OS/2, and Macintosh operating systems.

Portrait Tab

The Portrait tab allows you to display a bitmap (.bmp) image of the contact if you wish. This field is similar to the Floor Plan tab in the location file (page 97) and functions in the same manner.

Adding an Image

The system inserts the bitmap into the frame provided. For the proportions of your portrait to be correct, you must adjust the size of the frame to match that of the bitmap you intend to use. For detailed instructions on editing ServiceCenter forms, refer to the *Forms Designer* chapter of *ServiceCenter System Tailoring, Volume 1*.

To insert a bitmap:

- 1 Right-click the blank frame of the Portrait tab.
A shortcut menu is displayed (Figure 2-8 on page 93).
Note: If the menu does not display, try clicking outside the frame, and then return to the frame.
Note: Only one bitmap can be stored at any one time.
- 2 While continuing to hold down the mouse button, select the **Insert bitmap** option.

A dialog box for selecting an image is displayed.

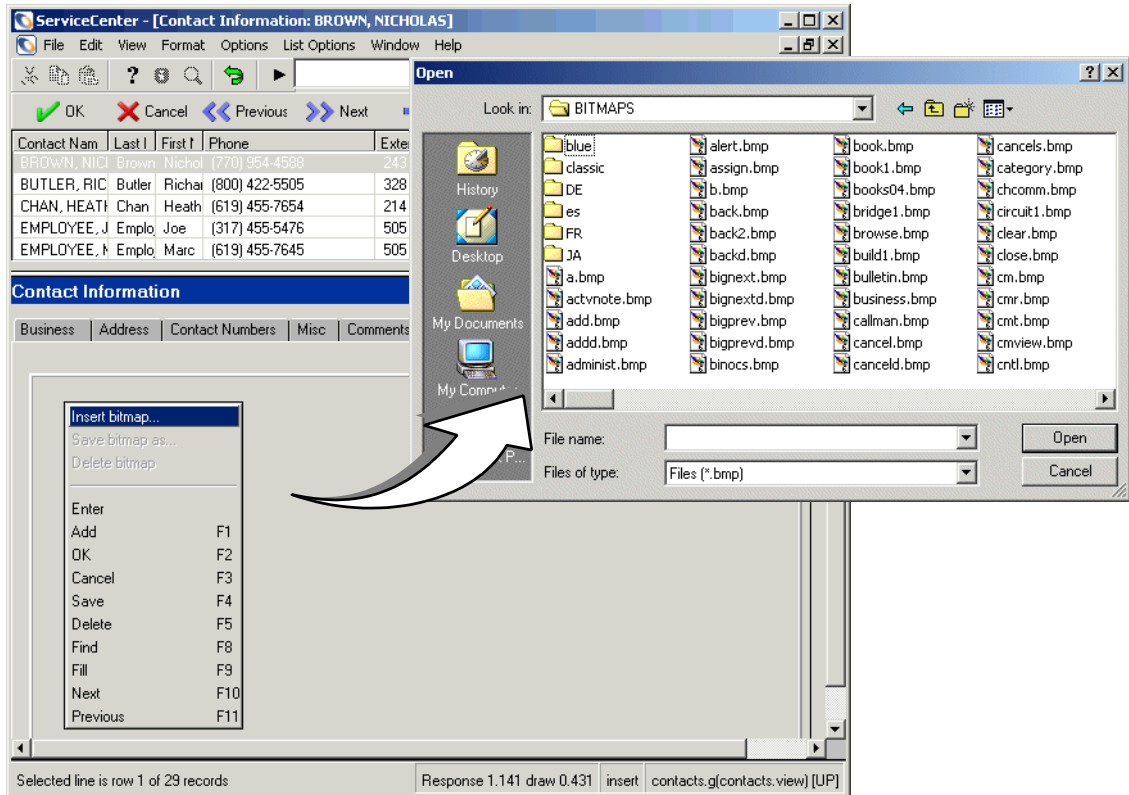


Figure 2-8: Shortcut menu and dialog box for selecting a bitmap—Portrait tab

- 3 Select the bitmap file that you want displayed in the tab.
- 4 Click **Open** to insert the image.

Note: It is not necessary to save the record to save your changes. The image is inserted into the record permanently when the option is selected.

Deleting an Image

To delete an image from a contact record:

- 1 Right-click the bitmap image of the Portrait tab.

A shortcut menu is displayed.

Note: If the menu does not display, try clicking outside the frame, and then return to the frame.

- 2 While continuing to hold down the mouse button, select the **Delete bitmap** option.

The bitmap is deleted from the tab.

Note: It is not necessary to save the record to save your changes. The bitmap is removed from the record permanently when the option is selected.

Location File

ServiceCenter contains a location file with records listing the physical address of the components. This data is used to fill in the Company record and location information in records in other ServiceCenter applications, such as an incident ticket in Incident Management.

Location ID	Location Name	Address	City	Zip Code	Primary Contact
ACME HQ	Chicago HQ	5543 Windy Way	Chicago	98765	HAWTHORNE, GREG
ASIA HQ	Taipei, Asia HQ	5543 Peitau	Taipei		HAWTHORNE, GREG
Atlanta	Atlanta	200 Mansell Court East	Roswell	30076	FALCON, JENNIFER
Australia	Peregrine Australia	Level 14			Tim Duffy

Location Information

Location: Atlanta
 Location Code: atl
 Location Name: Atlanta
 Parent Location:
 Location Structure: Atlanta
 Location Full Name: PRGN/Atlanta

General | Floor Plan

Address: 200 Mansell Court East Suite 100
 City: Roswell
 State/Province: GA
 Postal Code: 30076
 Country: USA
 Hours: to
 Comments:

Primary Contact: FALCON, JENNIFER
 Site Category: B - Major Site
 Department:
 Phone: (770) 649-7955
 FAX: (770) 649-9981
 Email:

Selected line is row 3 of 29 records | insert location.qbe.g [UP]

Figure 2-9: Location record

Header Fields

Field	Description
Location	Unique name for identifying this location.
Location Code	A unique set of characters identifying the location. For example, Australia may appear as aus, and a region of California may be indicated by ca1.
Location Name	The proper name of the site, for example, Corporate Headquarters.
Parent Location	The main location. The value in this field is a compilation of the company code and the location name of the parent location (if a parent location exists). This field is optional.
Location Structure	Defines the location structure based on the locations defined in the parent structure but does not include the company code. For example, the value in this field could name a specific building: Del Mar/BLDG1
Location Full Name	The entire hierarchical structure of the location consisting of the parent location prefixing the location. A possible value for this field could be: PRGN/Del Mar/BLDG1

General Tab Fields

Field	Description
Address	The site's address.
Hours	The hours this site is active.
Company	The name of the company from the company file. This name may differ from the value in the Location Name field.
Primary Contact	Primary contact for this location. The value in this field is from the contacts file.
Corp Struct/Div	Complete department structure for this location.

Field	Description
Site Category	Classification of this location. The four types that appear in the drop-down list are: <ul style="list-style-type: none"> ■ A-Critical Site ■ B-Major Site ■ C-Satellite Site ■ D-Home Site
Department	The department in which the Primary Contact works.
Phone	The Primary Contact's phone number.
FAX	The Primary Contact's fax number.
Email	The Primary Contact's e-mail address.
Comments	General comments field. The text here is not used by any other process in the system.

Floor Plan Tab

The Floor Plan tab displays an inserted bit mapped image. This option is only available for Windows-based clients. For example, this image could be the floor plan of the location.

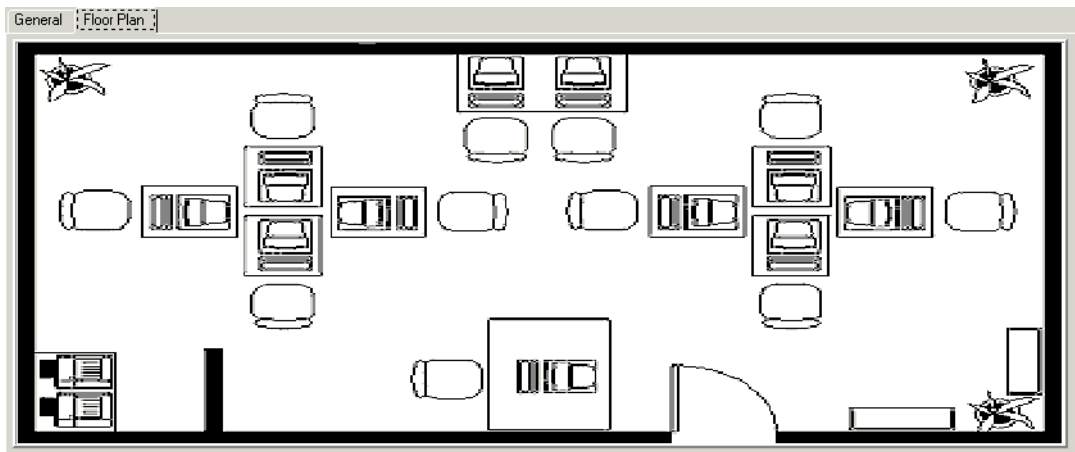


Figure 2-10: Floor Plan tab in a location record

Adding an Image

The system inserts the bitmap (.bmp) into the frame provided. For the proportions of your diagram to be correct, you must adjust the size of the frame to match that of the bitmap you intend to use. For detailed instructions on editing ServiceCenter forms, refer to the *Forms Designer* chapter of *ServiceCenter System Tailoring, Volume 1*.

To insert a bitmap:

- 1 Right-click the blank frame of the Floor Plan tab.
A shortcut menu is displayed (Figure 2-11 on page 99).
Note: If the menu does not display, try clicking outside the frame, and then return to the frame.
- 2 While continuing to hold down the mouse button, select the **Insert bitmap** option.

A dialog box for selecting an image is displayed.

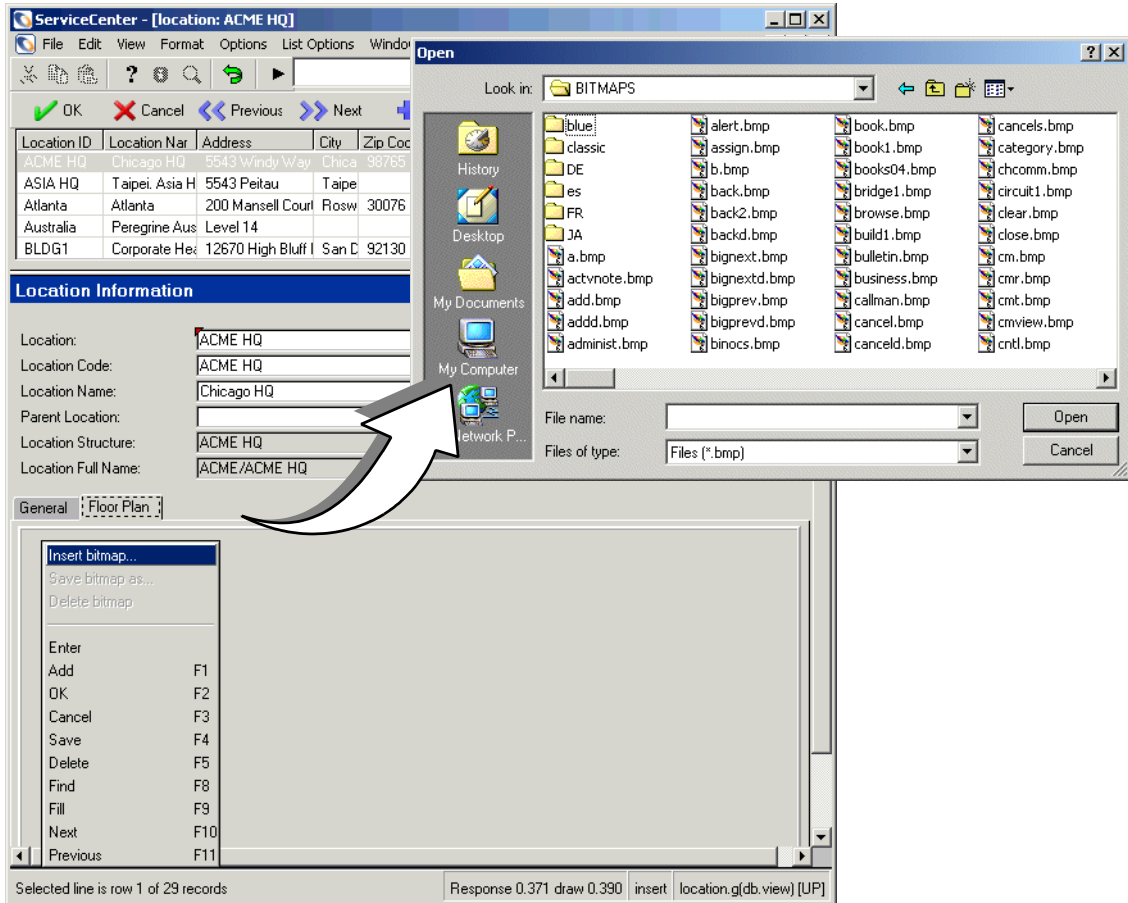


Figure 2-11: Shortcut menu and dialog box for selecting a bitmap

- 3 Select the bitmap file that you want displayed in the tab.
- 4 Click Open in the dialog box to insert the image.

Note: It is not necessary to save the record to save your changes. The floor plan is inserted into the record permanently when the option is selected.

Deleting an Image

To delete an image from a location record:

- 1 Right-click the bitmap image of the Floor Plan tab.
A shortcut menu is displayed.
Note: If the menu does not display, try clicking the pointer outside the frame, and then return to the frame.
- 2 While continuing to hold down the mouse button, select the **Delete bitmap** option.
The bitmap is deleted from the tab.
Note: It is not necessary to save the record to save your changes. The bitmap is removed from the record permanently when the option is selected.

Model File

ServiceCenter contains a *model* file to track different models of components in a network. For example, the **model** file is linked to asset records in Inventory/Configuration Management. The **model** file is also linked to ServiceCenter's Request Management, which is discussed in a separate manual. When model information is stored in Request Management, users can learn items such as:

- Rules for processing a component as a line item, part of a quote or order.
- Rules for selecting the components of a parent part.
- Dependencies.
- Approvals required when a component is part of a quote or order.
- Quantities of a component that are in use, on hand, on order, and so on.

The screenshot shows a window titled "ServiceCenter - [Search model Records]". The window has a menu bar with "File", "Edit", "View", "Format", "Options", "List Options", "Window", and "Help". Below the menu bar is a toolbar with icons for "Back", "Add", "Search", "Find", and "Fill". The main content area is titled "Model Information" and has several tabs: "General", "Current Quantities", "Reorder", "Vendors", "Catalog", "Software", and "Picture". The "General" tab is selected, showing a form with the following fields:

General Information			
Part No.:	<input type="text"/>	Cost:	<input type="text"/>
Brief Description:	<input type="text"/>	Currency:	<input type="text"/>
Manufacturer:	<input type="text"/>	GL Number:	<input type="text"/>
Model:	<input type="text"/>	Default Priority:	<input type="text"/>
Model Ext.:	<input type="text"/>	Default Quantity:	<input type="text"/>
Serialized:	<input type="checkbox"/>	Config. File:	<input type="text" value="device"/>
		Attribute File:	<input type="text"/>

Below the "General Information" section are two large text areas: "Detailed Description" and "Instructions". The status bar at the bottom shows "Ready" on the left and "insert | model.g [S]" on the right.

Figure 2-12: Model record

Unlike the *device* file that contains a record for each component on the network, the *model* file allows you to create general records for each overall model. Model records are linked to the **Model** field in other records, such as an asset record.

For example, you may have 300 PCs of a particular model, for example, a Toshiba Tecra 8000. The *device* file holds 300 asset records for these PCs, but the *model* file holds only a single record with details of the Tecra 8000.

General Tab

Field	Description
Part No.	Unique part number used to identify this model. If no part number is entered, ServiceCenter will automatically assign one when a model record is added, or you can add it manually.
Brief Description	Textual description of the model.
Manufacturer	Maker of the model. This field must match an existing vendor record. This is a required field.
Model	Unique name or number assigned by the manufacturer to identify this asset. This is a required field. For example, a Hewlett-Packard printer can be a Laserjet.
Model Ext	Defines the model extension number of the model. For example, the Model Ext for an HP Laserjet can be a 4SI. Note that it is just as valid to define the Model as a Laserjet 4SI.
Serialized	Logical field indicating whether or not the model is serialized. This value affects the process used when generating orders.
Cost	Cost per unit in the currency listed in the Currency field.
Currency	Name of the currency used for calculating values in the model file. Currencies are defined in the currency file.
GL Number	A general ledger number used for accounting purposes.
Default Priority	Controls the order in which items are presented to the user for selection when a part is being selected in Request Management. Note: To track serialized non-inventoried models, select this box and set the Config File field to non-inventoried.
Default Quantity	Defines the default quantity of this item to order
Config File	File to which data is posted when this type of model is received.
Attribute File	Along with the Config File, a field that determines where a part should be defined in inventory. This field appears only if the value for Config File is <i>device</i> . For further information about attribute files, see the Inventory Management chapter in the <i>Application Administration Guide</i> .

Field	Description
Detailed Description	Detailed textual description of this asset.
Instructions	Arrayed field used with Request Management to enter any special instructions needed for this type of component. This array could contain assembly or installation instructions, reminders, and so on.

Current Quantities Tab

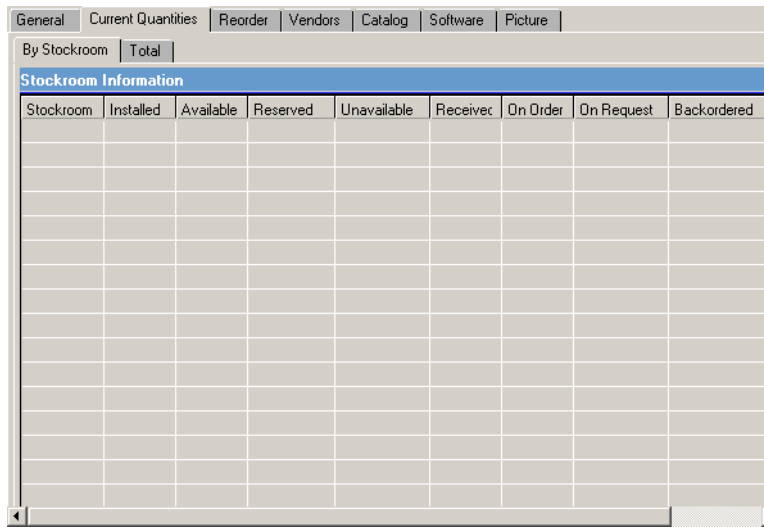


Figure 2-13: Current Quantities tab in a model record

Note: The fields in the Current Quantities structure default to 0 (zero) if no values are entered in these fields.

Field	Description
Stockroom	The physical location of the stockroom.
Installed	For serialized equipment, the quantity of this model in the device file that has a status of Installed. For non-serialized equipment, this value represents the quantity that has been delivered over the life of the model.
Available	For serialized equipment, the quantity of this model in the device file that has a status of Available. For non-serialized equipment, this value is the current on-hand quantity.

Field	Description
Reserved	For serialized equipment, the quantity of this model in the device file that has a status of Reserved. This field is not used for non-serialized equipment.
Unavailable	Quantity of this model in the inventory device file that has a status of Unavailable.
Received	For both serialized and non-serialized equipment, the quantity of this model with a status of Received. An item is considered received after it has been logged during the Order Line Item receiving process but not yet posted to the appropriate inventory file.
On Order	For both serialized and non-serialized equipment, the quantity of this model currently ordered.
On Request	For serialized and non-serialized equipment, the quantity of this model currently on request.
Backordered	Indicates the number of this model that are on back-order.

Reorder Tab

The screenshot shows the 'Reorder Information' tab in a software interface. It contains several input fields and checkboxes. The 'Min. Ord. Amount', 'Max. Ord. Amount', and 'Lot Size (Ord.)' fields are set to '0'. The 'Unit/Measure' field is set to 'EA'. The 'Reorder Type' dropdown is set to 'Batch'. The 'Purchasing Group' and 'Material Group' dropdowns are empty. The 'Consume Avail?', 'Combine?', and 'Track Receiving?' checkboxes are unchecked. Below the fields is a table with three columns: 'Stockroom', 'Reorder Point', and 'Reorder Amount'. The table is currently empty.

Figure 2-14: Reorder Information tab in a model record

Note: The Reorder Information fields default to zero (0) if no values are entered in these fields.

Field	Description
Min. Ord. Amount	Minimum quantity of this model that can be ordered.
Max. Ord. Amount	Maximum quantity of this model that can be ordered.
Lot Size (Ord)	Lot size used when this model is ordered from a vendor. The order amount is always a multiple of this number.
Unit/Measure	Standard unit of measure for this asset.
Reorder Type	<p>Controls the processing used when a model is ordered. A drop-down menu provides three options:</p> <ul style="list-style-type: none"> ■ batch—activate the Reorder fields. ■ immediate—indicates that this model should be ordered immediately. ■ phantom—this model is not reordered. A phantom is a place holders, or pseudo parts, used to organize a collection of multiple items and provide flexibility in defining component relationships within a catalog. A phantom can be considered an umbrella type of level for several parts selections of the same type and is not usually a physical item.
Stockroom	List of stockrooms from which to order
Reorder Point	Point at which this model is ordered. When the quantity in the Available field moves below this value, the quantity shown in the Reorder Amount field is ordered. The Reorder Type field must be set to batch to activate this field.
Reorder Amount	Amount ordered when the Available quantity drops below the Reorder Point. The Reorder Type must be set to batch to activate this field.
Purchasing Group	Key for a buyer or group of buyers responsible for certain activities. A purchasing group is internally responsible for the procurement of certain types of materials. For example, the IT Department purchases all computer related materials, while Facilities handles the procurement of office furniture.
Material Group	Classifies similar materials within an organization. This field tracks the material categories you define. For example, you may have different classifications of manufacturing equipment or building materials. A large organization, composed of several business divisions, can use this field to keep a division's unique stock viewable to members of that division only.

Field	Description
Consume Avail	Logical field permitting the inventory depletion of this model. Select this box if the available inventory is consumed when Quote Line Items are processed in the application <code>ocmo.create.order</code> . The box is not selected by default. This box is not selected for non-inventoried equipment.
Combine	Logical field controlling the processing of Quote Line Items. Select this box if Quote Line Item quantities are combined into one Order line item when they are processed. If this box is not selected, a unique Order and Order Line Item is created for each Quote Line Item. The box is not selected by default.
Track Receiving	Logical field controlling receipt tracking of this model.

Note: The *model* file also includes extensive catalog definition data for each model, including its components, dependencies, part and component conditions, associated alerts and approvals, and receiving and posting rules. For details of catalog configuration fields within the *model* file, see the *ServiceCenter Request Management* manual.

Model file data can also be viewed using alternate forms. In particular, form *ocmco.detail* lets you define and view detailed catalog part and component conditions rather than just simple true/false conditions. To use an alternate view, click Views in the system tray, and then select the desired view.

Vendors Tab

The Vendors tab accesses all vendors that provide services for this component. The search is performed against the modelvendor file and is based on the part number of the current model record.

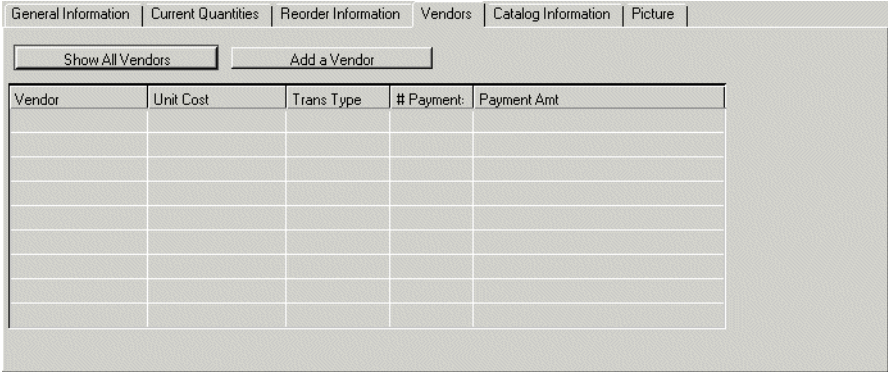


Figure 2-15: Vendor information in the model file

Catalog Tab

The Catalog Information tab displays component definitions from Request Management based on the part number of the current model record. For additional information on the fields in this tab, please refer to *Request Management*.

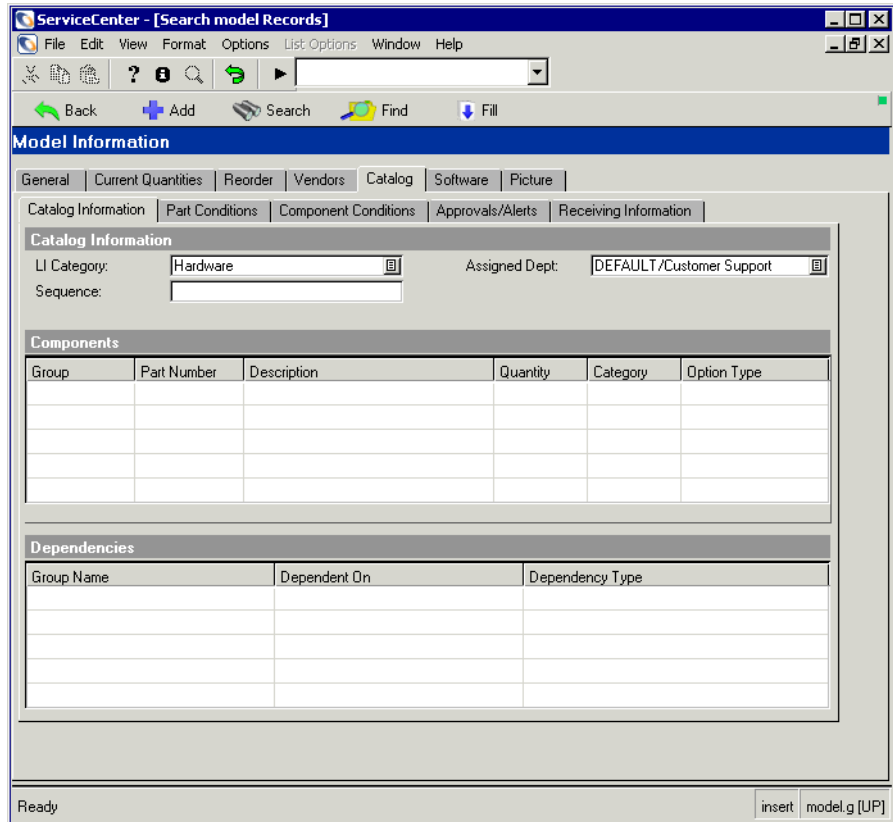


Figure 2-16: Request Management component definitions

Field	Description
LI Category	Allows you to group like entries under one common name. This data comes from Request Management. This is a required field.
Assigned Dept	Field used to assign a group to a part
Sequence	User definable sequence used to sort items in the Request Management catalog selection process. Sequence numbers sort in ascending order with blanks coming first.

Software Tab

The Software tab displays information for software licensing and installation. Use this tab only if the data in the **LI Category** field on the Catalog tab references a software license or software installation. For details about this tab, see the *Application Administration Guide*.

Picture Tab

This Picture tab (Figure 2-17 on page 109) is an OLE container for bitmap images. For instructions on placing and handling such images, refer to *File Attachments and OLE Containers* on page 69.

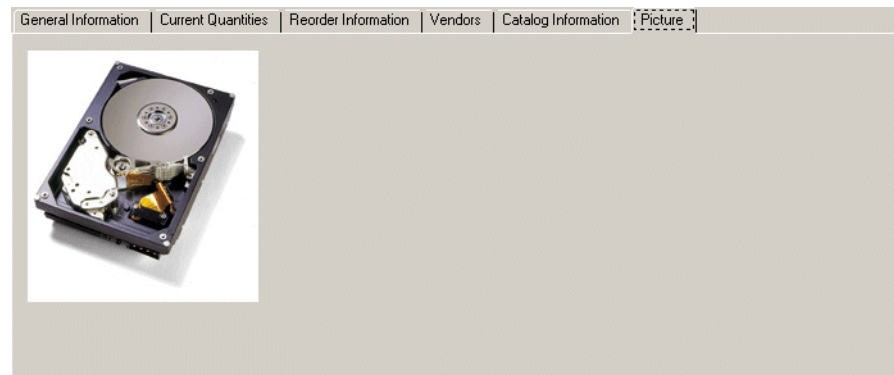


Figure 2-17: OLE container for bitmap images of part

Options Menu - Active Model Record

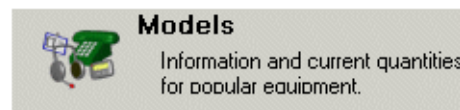
The Options menu of an active model record contains options unique to the model file. For a discussion of options in a blank model record form, see *Options Menu Items* on page 126.

Field	Description
Print	Prints the current record on a server printer.
Validity Lookup	Checks the data in the current field against the ServiceCenter validity table for that field.
Export/Unload	Allows you to export this record into a file for importing into a spreadsheet, or provides options to unload the DBdict or prepare a query to select records to unload.
IR Query	Accesses ServiceCenter's IR (Information Retrieval) Expert application.
Expand Array	Displays a separate window with an expanded version of the highlighted array, allowing you to enter or remove values in the array.
Summarize	Summarizes the current parent-component definitions into an array which shows at a glance the relationship of various model records.
Take Inventory	Runs the model.take.inventory application to search the file in Config File field for all items in the inventory with the same Part Number and totals based on Status (installed, reserved, available, unavailable); then calculates from the ocml file the number for on order, on request, and received.

Deleting a Model Record

To delete an existing model record:

- 1 In the system administrator's home menu, click the Support tab.
- 2 Click Models.

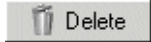


A blank model record (**model**) is displayed.



- 3 Select an existing record using the following procedure:
 - a Enter any information about the desired record in the fields provided and click **Search** or press **Enter**, *or*
 - b Click **Search** and select a record from the record list of models displayed at the top of the form.

The requested record is displayed.



- 4 Click **Delete** or press **F6**.
A form is displayed asking you to confirm the deletion of the record.
- 5 Click **Yes** to confirm the action.

You are prompted to select the appropriate items to delete option from the Summary View of Request Management Parent/Component Relationships (**ocmo.smry.g**) dialog box (page 111).

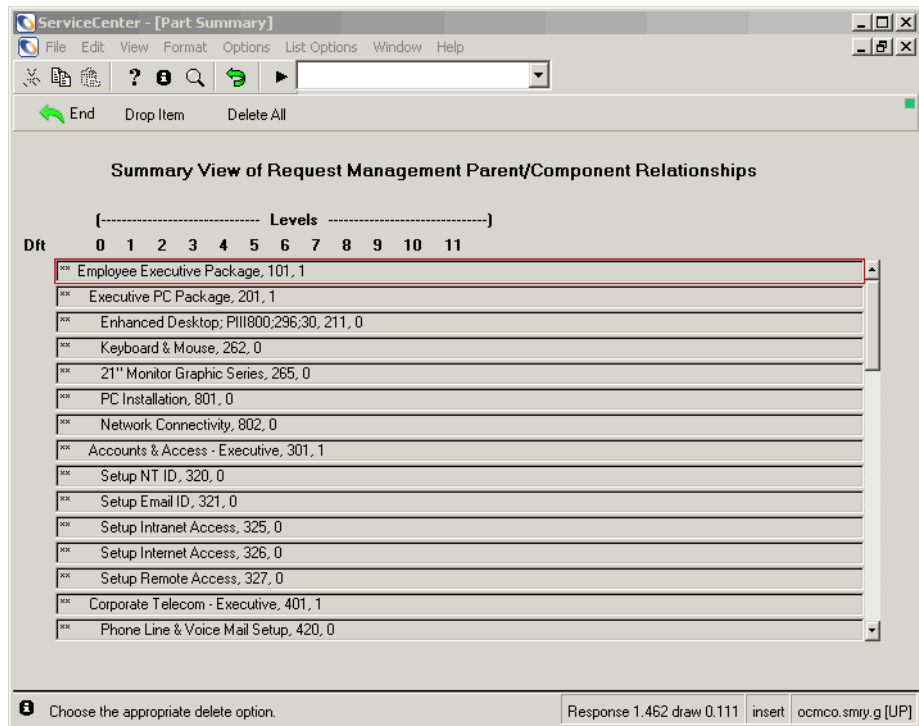


Figure 2-18: Parent/Component relationship list

This screen allows you to delete all associated components of this item, which could be a parent to several related items.

- **Drop item** removes the item from the line where the cursor is located, leaving all other items on the delete list.
 - **Delete all** continues with the delete process, removing all items remaining on the list.
- 6 Remove all items that you do not want to delete, and then click **Delete all**. A Request Management Component Definition form is displayed in browse mode as a confirmation window for each child component if there are multiple items to delete.

ServiceCenter - [confirm the deletion of this record]

File Edit View Format Options List Options Window Help

F3 - End F2 - Delete F4 - Skip

REQUEST MANAGEMENT COMPONENT DEFINITIONS

Part No.: 211 Show Vendors

Desc.: Enhanced Desktop; PIII800;296;30

Manufacturer: Compaq

Model: p800 Model Ext.:

LI Category: Desktop Assigned Dept:

Default Priority: Default Quantity: 1

Group	Part Number	Description	Quantity	Category	Option Type

Ready Response 0.130 draw 0.80 insert ocmco.g [S]

Figure 2-19: Component definition form

- 7 Click **Delete** for each item.
- A message in the system tray states: *Part <number> successfully deleted*. Click **Delete** to delete other related components.

Vendor File

ServiceCenter contains a **vendor** file that stores records of vendors, manufacturers, and contractors. This data is linked to many related files, such as quote, order, and line item Request Management files, where the information is placed in the **Vendor** field. This file is also linked to the **Service Provider** field in an incident ticket, to the **Manufacturer** field in the *model* file, the **Vendor** field in the *device* file, and to the **Vendor** field in the *modelvendor* file, for example.

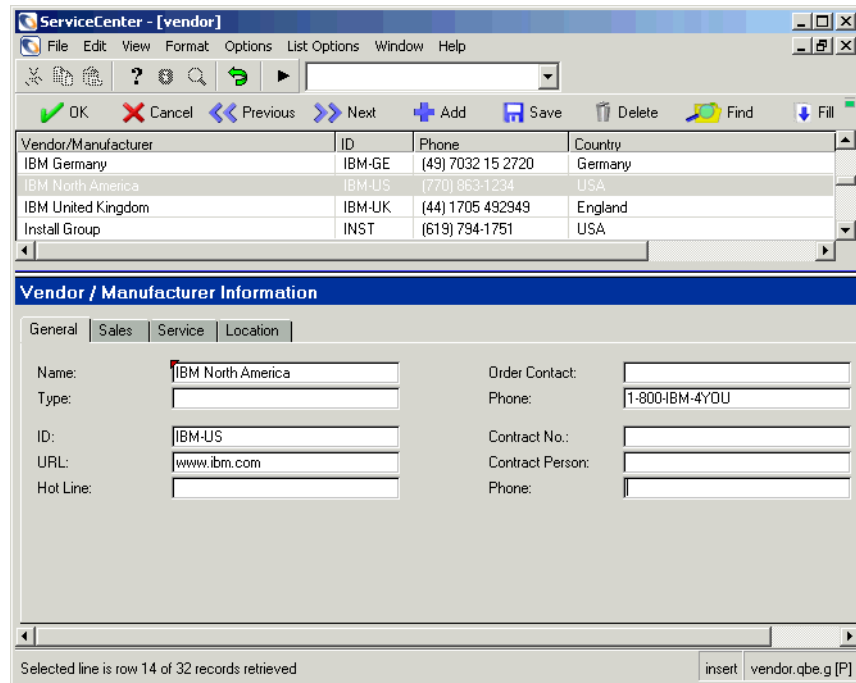


Figure 2-20: Vendor record

Header Fields

The vendor record fields provide information necessary for contacting and working with a vendor or manufacturer. Required fields are noted.

Field	Description
Vendor/ Manufacturer	Name of the seller, manufacturer, contractor, service provider, and so on.
ID	Unique alphanumeric identification assigned to this vendor record in the ServiceCenter database.
Phone	Telephone number for the vendor/manufacturer.
Country	Country in which the vendor/manufacturer is located.

General Tab Fields

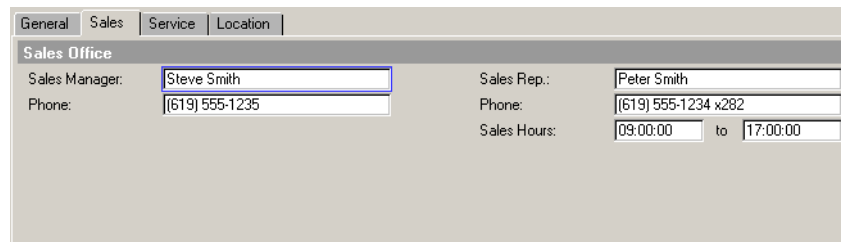
The screenshot shows a web-based form for a vendor record. At the top, there are four tabs: 'General', 'Sales', 'Service', and 'Location'. The 'General' tab is selected. Below the tabs, there are two columns of input fields. The left column contains: 'Name:' with a text box containing 'IBM North America', 'Type:' with an empty text box, 'ID:' with a text box containing 'IBM-US', 'URL:' with a text box containing 'www.ibm.com', and 'Hot Line:' with an empty text box. The right column contains: 'Order Contact:' with an empty text box, 'Phone:' with a text box containing '1-800-IBM-4YDU', 'Contract No.:' with an empty text box, 'Contract Person:' with an empty text box, and another 'Phone:' with an empty text box.

Figure 2-21: General tab in a vendor record

Field	Description
Name	Name of the seller, manufacturer, contractor, service provider, and so on. This field is required.
Type	Optional field defining the type of service this vendor supplies.
ID	Unique alphanumeric identification assigned to this vendor record in the ServiceCenter database.
URL	The vendor's web site address.
Hot Line	Telephone number for technical support.

Field	Description
Order Contact	Vendor's representative.
Phone	Telephone number of the contact in the Order Contact field.
Contract No.	Service contract number.
Contract Person	Contact who represents the vendor in the service contract.
Phone	Telephone number of the contact in the Contract Person field.

Sales Tab Fields



The screenshot shows a software interface with four tabs: General, Sales, Service, and Location. The 'Sales' tab is selected and titled 'Sales Office'. It contains the following fields:

- Sales Manager: Steve Smith
- Phone: (619) 555-1235
- Sales Rep.: Peter Smith
- Phone: (619) 555-1234 x282
- Sales Hours: 09:00:00 to 17:00:00

Figure 2-22: Sales tab in a vendor record

Field	Description
Sales Manager	Name of the manager of this vendor's sales office.
Phone	Sales manager's telephone number.
Sales Rep	Vendor's account representative to your company.
Phone	Sales representative's telephone number.
Sales Hours	Sales representative's working hours.

Service Tab Fields

The screenshot shows a software interface with a tabbed menu at the top containing 'General', 'Sales', 'Service', and 'Location'. The 'Service' tab is active. Below the menu is a 'Service Information' section with the following fields and values:

- Technician: Mike Lupinski
- Phone: (619) 555-1234 x200
- Beeper: 800-skypage-55555
- Hours: 08:00:00 to 17:00:00
- After-Hours Contact: (empty)
- Phone: (empty)
- Manager: Lisa Washington
- Phone: (619) 555-1400

Below this is an 'Escalation Procedures' section, which is currently empty and has a scroll bar on the right side.

Figure 2-23: Service tab in a vendor record

Field	Description
Technician	Your contact in the service department.
Phone	Technician's telephone number.
Beeper	Technician's pager number.
Hours	Service department hours.
After-Hours Contact	Your service contact outside of business hours.
Phone	The contact's telephone number.
Manager	Service department manager.
Phone	Manager's telephone number.
Escalation Procedures	Steps necessary to have service performed and problems escalated if they are not resolved.

Location Tab Fields

The screenshot shows a software interface with a 'Location' tab selected. The form contains the following fields and values:

- Address:** 1133 Westchester Avenue
- Country:** USA
- Phone:** (770) 863-1234
- FAX:** (770) 863-3030
- Email:** askibm@vnet.ibm.com
- Vendor?:**
- Manufacturer?:**

Figure 2-24: Location tab in a vendor record

Field	Description
Address	Scrollable array for the vendor's mailing address, including the city, state and zip code where the vendor is located.
Country	Country where the vendor is located.
Phone	Vendor's telephone number.
FAX	Vendor's fax number.
Email	Vendor's e-mail address.
Vendor?	Selecting this checkbox indicates that this is a vendor record.
Manufacturer?	Selecting this checkbox indicates that this is a manufacturer record.

Company File

Company information contained in the company file is used throughout ServiceCenter to complete forms and validate fields, such as fields in Contract Management. Unlike the *company record*, which records particulars about your company, the company file contains basic location and contact information about other companies with which you have contractual relations.

The screenshot shows the ServiceCenter application window with a table of company records and a detailed form for the selected company, 'Genericom Computer Resources'.

Company Code	Company Name	Customer ID	Customer Sin	City	State	Country
DEFAULT	Default Company	00000001	01/01/99 00:00			
PRGN	Peregrine Systems, Inc.	00000002	01/01/85 00:00	San Diego	CA	USA
ACME	ACME, INC.	00000003	01/01/99 00:00	San Diego	CA	USA
GENERICOM	Genericom Computer Resources	00000004	06/01/95 00:00	Chicago	IL	USA

COMPANY INFORMATION

Customer ID: 00000004

Company Code: GENERICOM Contacts

Company Name: Genericom Computer Resources

Default SLA for Company: GEN Bronze

Customer Since: 06/01/95 00:00:00

Address: 753 E. Northwest Highway

City/County/Post Code: Chicago IL 60004

Country: USA

Phone Number: (800) 555-6899

Fax Number: (888) 555-1551

Show Company in Multi-Company Lists: Yes

Always Show Company in Lists: Yes

MANDATORY Affected Item:

Service Manager: MANAGER1

Service Delivery Manager: SM 1

Selected line is row 4 of 4 records insert company.qbe.g [US]

Figure 2-25: Company information—external organizations

Company File Fields

Contacts and View buttons on this form direct you to linked forms *contacts.g* and *sla.edit* respectively.

Field	Description
Customer ID	Unique number assigned to this company for identification. This is a required field.
Company Code	Unique identifier (user definable) of this company. Click Contacts to browse contact records.
Company Name	Full name of the company. This is a required field.
Default SLA for Company	Default Service Level Agreement for this company. Links the incident to the SLA on this company record.
Customer Since	Date at which this company became a customer.
Address	Street address of this company.
City/County/Post Code	City/county/postal or zip code to be used for the company mailing address.
Country	Country code or name to be used for the mailing address.
Phone Number	Principal phone number for this company.
Fax Number	Fax number for this company.
Show Company in Multi-Company Lists	Displays this company in a list of companies for systems configured for multi-company mode. For further information about multi-company mode, see Using Multi-Company Mode on page 120.
Always Show Company in Lists	See above.
MANDATORY Affected Item	Not used in this release of ServiceCenter.
Service Manager	Service manager for this company. The value in this field can be used for notification purposes.
Service Delivery Manager	Service delivery manager for this company if different from the service manager. The value in this field can be used for notification purposes.

Using Multi-Company Mode

Running ServiceCenter in multi-company mode enables help desks to more easily manage data for multiple companies or departments. By using customized links and formats in conjunction with multi-company mode you isolate a company's data. As a result, selections relevant only to that company appear when you open a ticket or generate bills and reports for the company.

For example, a help desk analyst who services multiple companies opens a new call report based on the customer information he or she receives. If ServiceCenter is running in multi-company mode, the analyst sees data that applies only to that customer's company. If ServiceCenter is *not* running in multi-company mode, the analyst sees data that applies to all companies that the help desk services.

You can further segregate data and increase security by using multi-company mode with the Mandanten feature. For more information about this feature, see *Mandanten Database Protection* on page 297.

To set ServiceCenter to run in multi-company mode, select **Run in Multi-Company Mode** on the Misc tab of the System Wide Company Record. For details about this field, see *Miscellaneous Tab* on page 211.

Department File

The dept file records basic data about the various departments within your organization, including the internal SLA (service level agreement) that applies to this department. Department records can be accessed from other ServiceCenter files, using the Fill function.

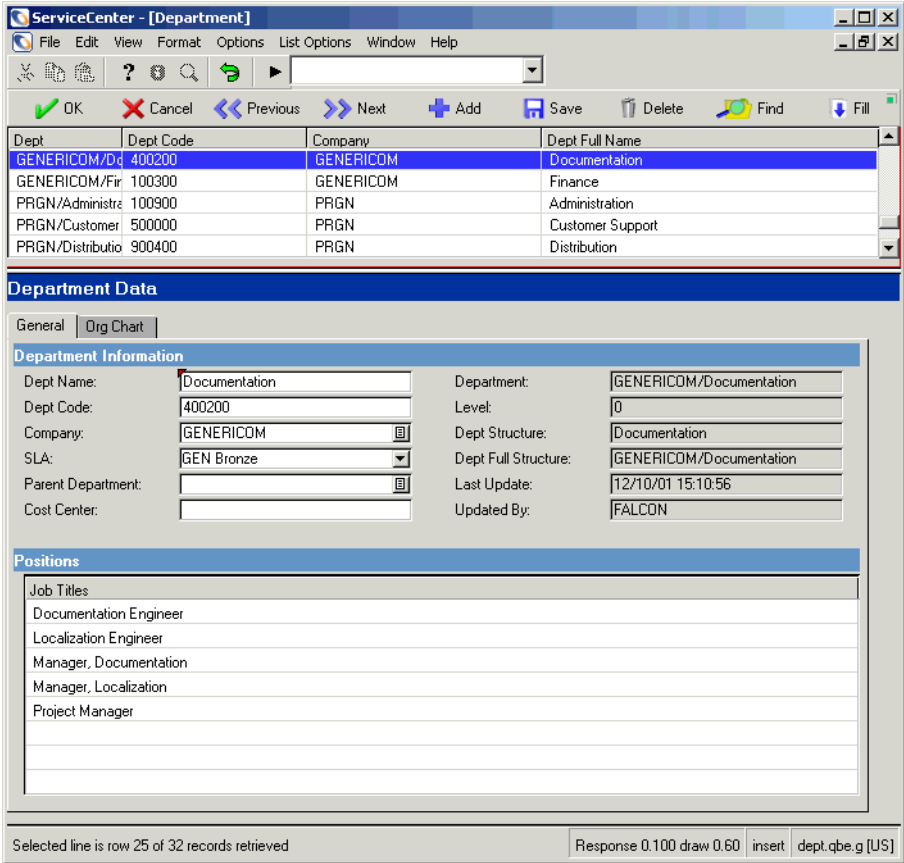


Figure 2-26: Department record

Information Tab Fields

Field	Description
Department	<p>Unique department name consisting of the company code and the department name. The value in this field is compiled automatically by the system and is read-only.</p> <p>This field is set in the trigger.dept.structure application on the set.final panel and provides a unique identifier for the record. Users should not modify this field.</p>
Dept Name	Full name of this department. This is a required field.
Dept Code	Unique identification number of the department that is assigned by the person creating the record. You may use any alpha-numeric scheme.
Company	Unique company code (user definable) from the company file.
SLA Number	Number of an SLA that applies to this department.
Parent Department	Main department that will be reporting for Service Level Agreements. The value in this field is a compilation of the company code and the department name.
Dept Structure	<p>Defines the department structure below the parent department. For example, the value in this field could name the Documentation group within the Research and Development department.</p> <p>Research & Development/Documentation</p>
Dept Full Structure	<p>Entire hierarchical structure of the department including the company code and a departmental subgroup. A possible value for this field could be:</p> <p>PRGN/Research & Development/Documentation</p>
Last Update	Date this department record was last updated.
Updated By	Name of the person who last updated this record.

Positions Tab

Use the array field in the Positions tab to list the job titles for this department.

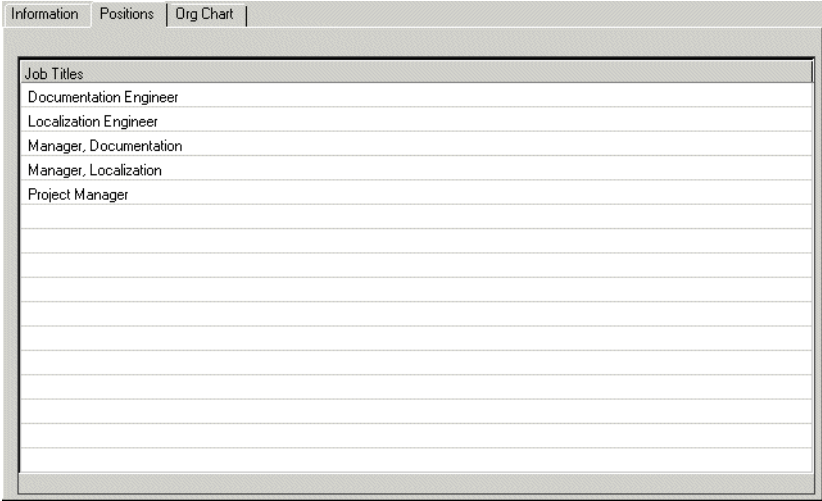


Figure 2-27: Departmental job titles

Org Chart Tab

The Org Chart tab is an OLE container into which you can insert an organizational chart of this department. Not all OLE objects are insertable, therefore only bitmaps are acceptable. Create the chart in another application (for example, MS Word or Visio) and save it as a bitmap (.bmp).

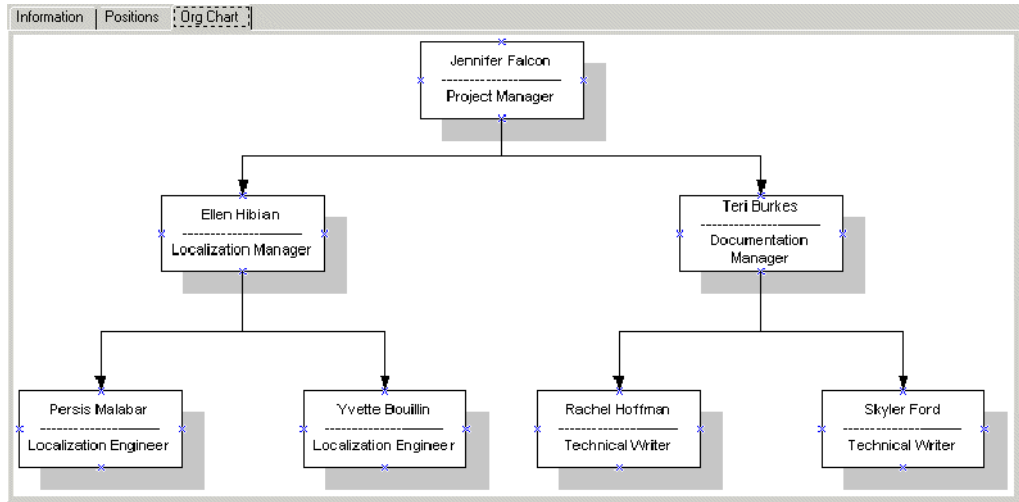


Figure 2-28: Org Chart tab

Inserting an Image

To insert a bitmap image of an organization chart:

- 1 Right-click the blank frame of the Org Chart tab.
A shortcut menu is displayed (Figure 2-29 on page 125).
Note: If the menu does not display, try clicking the pointer outside the frame, and then return to the frame.
- 2 While continuing to hold down the mouse button, select the **Insert bitmap** option.

A dialog box for selecting an image is displayed.

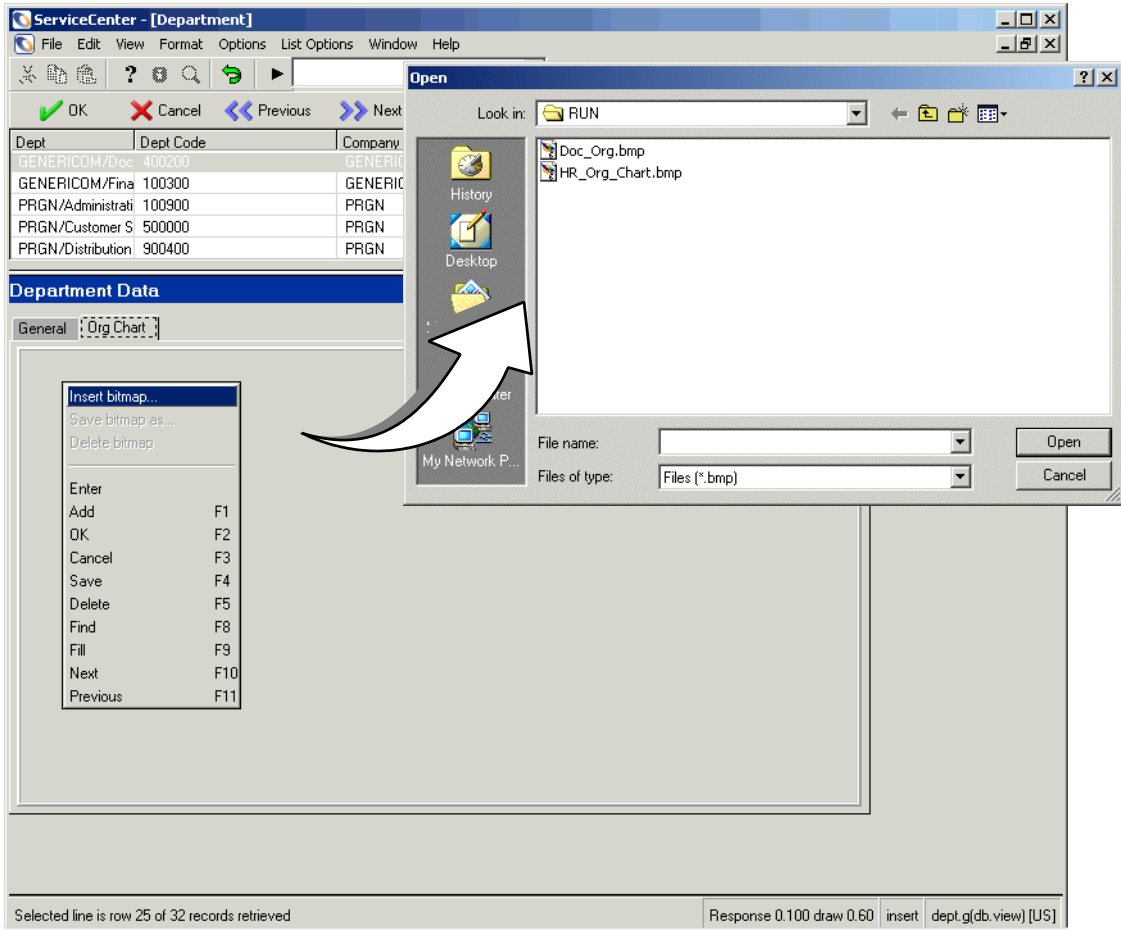


Figure 2-29: Shortcut menu and dialog box for selecting a bitmap—Org Chart tab

- 3 Select the bitmap (.bmp) file that you want displayed in the tab. ServiceCenter looks for the file in the Run directory as the default location.
- 4 Click **Open** to insert the image.

Note: It is not necessary to click Save. The image is saved automatically with the record.

Deleting an Image

To delete an image of an organization chart from a department record:

- 1 Right-click the bitmap image in the Org Chart tab.
A shortcut menu is displayed.
Note: If the menu does not display, try clicking the pointer outside the frame, and then return to the frame.
- 2 While continuing to hold down the mouse button, select the **Delete bitmap** option.
The bitmap is deleted from the tab.
Note: It is not necessary to click Save to save your changes. The bitmap is removed from the record permanently when the option is selected.

Options Menu Items

The **Options** menu selections are consistent throughout the support file forms with the exception of the Options menu of an active model record. For a discussion of available options in model records, refer to *Model File* on page 100.

All the support files in this chapter have different Options menu items depending upon whether a blank or active record is displayed.

Options Menu—blank Record

Field	Description
Clear	Clears the data entered in the form.
Restore	Returns the fields in the form to the previous values. Only available in the initial form in which you enter data.
Advanced Search	Displays a search window allowing you to write your own search query and sort the results by keyed fields.
IR Query	Accesses ServiceCenter's IR Expert application.

Field	Description
Export/Unload	Allows you to export this record into a file for importing into a spreadsheet, or unload this data set for loading into another ServiceCenter system. Basically, you can export information to any product that has DDE (Dynamic Data Exchange) support.
Validity Lookup	Checks the data in the current field against the ServiceCenter validity table for that field.
Reset	Deletes all the records in the current file. Warning: Do not use the Reset option unless you want to delete all of the records in the current file.
Regen	Regenerates the indices for the current file.
Open Inbox	Allows the user to select a predefined query (inbox) to search the file.
Expand Array	Displays a separate window with an expanded version of the highlighted array, allowing you to enter or remove values in the array.

Options Menu—active Record

Field	Description
Print	Prints the current record on the user's default printer.
Validity Lookup	Checks the data in the current field against the ServiceCenter validity table for that field.
Export/Unload	Allows you to export this record into a file for importing into a spreadsheet, or unload this data set for loading into another ServiceCenter system. Basically, you can export information to any product that has DDE (Dynamic Data Exchange) support.
IR Query	Accesses ServiceCenter's IR Expert application.
Expand Array	Displays a separate window with an expanded version of the highlighted array, allowing you to enter or remove values in the array.

List Options Menu Items

The List Options menu contains options related to record lists and QBE lists. List Options are available in support files only when a list is active.

Field	Description
Mass Add	Allows you to modify selected records in a file and add them to the database, while leaving the original records in place. An example of this might be to prepare a list of PC records from the device file for export to another system. If the new system requires an identifying prefix for each PC, mass add can add duplicate PC records to the database bearing this prefix. A query can then find the new subset, which can be exported to an external file using the mass unload option.
Mass Update	Allows you to update all the records in a file. This procedure overwrites the original records. An example of this might be to update part numbers in the model file to reflect a new identification scheme.
Mass Delete	Allows you to delete all the records appearing in a record (or QBE) list. Query for a certain subset of records and select mass delete. You are prompted to confirm the action.
Mass Unload	Allows you to unload all the records appearing in a record or QBE list to an external file.
Count	Counts the records appearing in a record or QBE list. The total is displayed in a pop-up message window.
Print List	Allows you to print either the record/QBE list or all the records.
Refresh	Refreshes the record or QBE list display.
Modify Columns	Allows you to edit column headings in a record or QBE list (see <i>Column Headings</i> on page 52).

Field	Description
Export to Excel	Exports all the records appearing in a record or QBE list directly to Microsoft Excel. Basically, you can export information to any product that has DDE (Dynamic Data Exchange) support. This DDE function requires Excel 95 or later. Note: This option is available only on Windows clients.
Export to Text File	Exports all the records appearing in a record or QBE list to an external file in text format. Choose a file name and text delimiter in the dialogue box displayed. The file is exported to the RUN directory in your client installation. This option is not part of the DDE support and can be run from clients other than those operating in Windows.

3 User Access and Security Control

CHAPTER

Overview

As system administrator, you will maintain users in the system by means of adding, editing, and maintaining user files, operator records, and profiles, and granting user system access rights within the system.

As system administrator, you permit access at three levels--access to the system (menu level) and access to and functionality within the ServiceCenter applications (capability words). You accomplish security setup for your users in the Central Administration Utilities through use of the *Operator* file, which contains the login name, password, and capability code(s) and the *System Wide Company Record*.

ServiceCenter is shipped with several operator templates already defined in the system, so you can choose to use some of these predefined users to create your user base within ServiceCenter. Each applicable type of user has different system rights and a different view of the system, as presented by a startup menu. See *Operator Templates* on page 184 to work with the pre-defined operator templates. This chapter will help you through the tasks of maintaining the ServiceCenter user base by showing you ways to add and edit users and their access rights.

See the following topics to help you with these tasks.

- Setting up profiles, based on *User Role* on page 132.
- *Adding Users* on page 146.
- *Creating an Operator Record* on page 147.
- Using capability words, *Capability Words* on page 169.
- *Creating a Startup Menu* on page 174.
- *Creating a Menu Record* on page 178.
- Changing user passwords, *Passwords* on page 189.
- Modifying a System Wide Company Record, *System Wide Company Record* on page 196.
- Using the User's Assignment & Message Groups Tab, *User's Assignment & Message Groups Tab* on page 218.

User Role

The out-of-box User Roles help to define operator roles within the ServiceCenter applications. An assigned User Role is the basis of assigning user profile types to properly engage the operators in each of the ServiceCenter applications. When you select an out-of-box User Role, the application profile settings within that User Role determine a user's access and privileges within each of the ServiceCenter applications, from basic user with limited access to system administrator with full access. When the system administrator assigns a particular User Role to an individual or specific group type, that role takes on the assigned user profile settings defined for privileges and views within each application and determines what tasks the operator will be able to perform within the ServiceCenter applications.

User Profiles

User profiles have varied levels of application access to accommodate the different levels of ServiceCenter users. The following describes the out-of-box User Profiles that have been set up within ServiceCenter that can be used when assigning User Roles to system users.

User Profile	Privileges
ADMIN	<p>Used in Service Management, Incident Management, Root Cause Analysis, Inventory Management, Change Management, and Request Management to grant full administrative access:</p> <ul style="list-style-type: none"> ■ All basic options, including open, update, view, and close Call reports, Incident tickets, and Root Cause Analysis tickets. ■ Search the ServiceCenter knowledge base. ■ Open, review, approve, deny, and retract changes within Change Management. ■ Open and close quotes and orders within Request Management. ■ Approvals. ■ All print options. ■ All query options.
APPROVER	<p>Used in Change Management and Request Management to grant approval authority for requests for change and Request Management quotes and orders. Other privileges include:</p> <ul style="list-style-type: none"> ■ Basic options, such as, count records, find, and notify. ■ All query options. ■ All print options.
ASSET MANAGEMENT	<p>Used in Change Management to manage all Inventory Management assets and grant full administrative access:</p> <ul style="list-style-type: none"> ■ All basic options, including open, update, view, and close change tickets. ■ Search the ServiceCenter knowledge base. ■ Open, review, approve, deny, and retract changes within Change Management. ■ Approve changes within the CA and ONSITE approval groups. ■ All print options. ■ All query options.
CLIENT SECURITY	<p>Used in Incident Management to grant the following:</p> <ul style="list-style-type: none"> ■ Open, update, view, and close incident tickets. ■ Search the ServiceCenter knowledge base. ■ Reopen, log, print, and allow inefficient queries.

User Profile	Privileges
COORDINATOR	<p>Used in Change Management, Inventory Management, and Request Management to grant administrative access to coordinate Change Management requests for change and Request Management quotes and orders. Privileges include:</p> <ul style="list-style-type: none"> ■ All basic options, including open, update, and view requests for change and quotes and orders. ■ Approvals and overrides. ■ All print options. ■ All query options.
DEFAULT	<p>Used in Service Management, Incident Management, Root Cause Analysis, Inventory Management, Change Management, and Request Management to grant the following access rights and privileges, including:</p> <ul style="list-style-type: none"> ■ View, log, find, fill, notify, count, search, override, allow inefficient queries, and check for duplicates for Call reports, Incident tickets, Root Cause Analysis tickets, requests for change, and quotes and orders. ■ Search the ServiceCenter knowledge base. ■ Within Change Management, all basic options, as well as all approval, print, and query options. ■ Within Request Management, most basic options, as well as all approval and print options and most query options.
EMERGENCY GROUP	<p>Used in Change Management to expedite a change from within the Change Management application. All basic, approval, print, and query options are granted.</p>
FACILITIES	<p>Used in Incident Management and Change Management to coordinate facilities activities. The following privileges are granted:</p> <ul style="list-style-type: none"> ■ Most basic options, including view, log, find, fill, notify, count, search, override, allow inefficient queries, and check for duplicates for Incident tickets and requests for change. ■ Approvals without override. ■ All print and query options. ■ Search the ServiceCenter knowledge base.
FIELD ENG	<p>Used in Incident Management to grant the following access rights and privileges:</p> <ul style="list-style-type: none"> ■ Some of the basic options, including view, log, find, fill, notify, count, search, override, allow inefficient queries, and check for duplicates for Incident tickets. ■ Search the ServiceCenter knowledge base.

User Profile	Privileges
HELPDESK	<p>Used in Change Management to grant the following access rights and privileges:</p> <ul style="list-style-type: none"> ■ Track alerts. ■ Calculate the risks. ■ Some of the basic options, including view, log, find, fill, notify, save, count, search, override, allow inefficient queries, review, find parents changes, open tasks, and check for duplicates for requests for change. ■ Search the ServiceCenter knowledge base. ■ Approvals without override. ■ All print options. ■ All query options.
HELPDESK TECH	<p>Used in Service Management and Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, view, close, and inactivate Incident tickets. ■ Search the ServiceCenter knowledge base. ■ Reopen, log, print, and allow inefficient queries. ■ Gain database access. ■ Create new categories.
INITIATOR	<p>Used in Service Management, Incident Management, Root Cause Analysis, Inventory Management, and Change Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, view, log, find, fill, and notify call reports and tickets. ■ Search the ServiceCenter knowledge base. ■ Log, print, count, and allow inefficient queries. ■ Create duplicates, new categories, and notes.
ISP	<p>Used in Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, view, close, and inactivate Incident tickets. ■ Log, reopen, find, fill, and print tickets. ■ Perform advanced search. ■ Gain database access. ■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.

User Profile	Privileges
ISPADMIN	Used in Incident Management to grant the following privileges: <ul style="list-style-type: none">■ Open, update, view, close, and inactivate Incident tickets.■ Log, reopen, find, fill, and print tickets.■ Perform advanced search.■ Gain database access.■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.■ Inactivate and mass inactivate tickets.■ Create new categories.
LAN SUPPORT	Used in Change Management and Incident Management to grant the following privileges: <ul style="list-style-type: none">■ Open, update, view, and close Incident tickets.■ Log, reopen, find, fill, and print tickets.■ Perform advanced search.■ Gain database access.■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.
M/F SUPPORT	Used in Change Management and Incident Management to grant the following privileges: <ul style="list-style-type: none">■ Open, update, view, and close Incident tickets.■ Log, reopen, find, fill, and print tickets.■ Perform advanced search.■ Gain database access.■ Create categories, allow inefficient queries, and check for incident duplicates on a device.
MANAGEMENT	Used in Change Management to manage all requests for change. Grants full administrative access privileges, including: <ul style="list-style-type: none">■ All basic options, including open, update, view, and close change tickets.■ Search the ServiceCenter knowledge base.■ Open, review, approve, deny, and retract changes within Change Management.■ Approve changes within the ASSET MANAGEMENT and CA approval groups.■ All print options.■ All query options.

User Profile	Privileges
MASTER	<p>Used in Request Management and includes the following privileges:</p> <ul style="list-style-type: none"> ■ All basic functions, excluding database manager activities. ■ Alert log. ■ Approval options, including approve, mass approve, approval log, reevaluate, reset, and override. ■ All print options. ■ All query options.
ONSITE SUPPORT	<p>Used in Incident Management and Change Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Some of the basic options, including open, update, view, and close Incident tickets and requests for change. ■ Approvals for Change Management. ■ All print options. ■ All query options.
PROCUREMENT	<p>Used in Incident Management and Change Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Some of the basic options, including open, update, view, and close Incident tickets and requests for change. ■ Approvals for Change Management. ■ All print options. ■ All query options.
RECEIVER	<p>Used in Request Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Some of the basic options, including open, update, view, and close quotes and orders. ■ All approval options. ■ All print options. ■ Most query options.
REPLACEMENT	<p>Used in Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, view, and close Incident tickets. ■ Log, reopen, find, fill, and print tickets. ■ Perform advanced search. ■ Gain database access. ■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.

User Profile	Privileges
REQUESTOR	<p>Used in Request Management to grant the following privileges:</p> <ul style="list-style-type: none">■ Some of the basic options, including open, update, view, and close quotes and orders.■ Log, reopen, find, and fill.■ Post, reopen, generate orders, and so on.■ Alert log.■ All print options.■ Some query options.■ No approval options available.
REVIEWER	<p>Used in Service Management, Incident Management, Root Cause Analysis, Inventory Management, Change Management, and Request Management to grant the following privileges:</p> <ul style="list-style-type: none">■ A few of the basic options, including audit, close, count, find, and list pages.■ Alert log.■ All print options.■ Most query options.■ No approval options.
SEAGATE INFO	<p>Used in Incident Management to allow the following privileges:</p> <ul style="list-style-type: none">■ Browse.■ Advanced search.■ Print, views, and count.
SERVICE MANAGEMENT	<p>Used in Change Management to grant the following privileges:</p> <ul style="list-style-type: none">■ Some of the basic options, including alerts, open, find, fill, notify, and save requests for change.■ Approvals.■ All print options.■ All query options.

User Profile	Privileges
SERVICE TECH	<p>Used in Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Most of the basic options, including open, update, view, and close Incident tickets. ■ Log, reopen, find, fill, and print tickets. ■ Perform advanced search. ■ Gain database access. ■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.
SOFTWARE	<p>Used in Change Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Some of the basic options, including alerts, open, find, fill, notify, save requests for change, and IR query. ■ Approvals. ■ All print options. ■ All query options.
STANDARD	<p>Used in Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Most of the basic options, including open, update, view, and close Incident tickets. ■ Log, find, fill, and print tickets. ■ Create new categories and notes, allow inefficient queries, and check for incident duplicates on a device.
SYSADMIN	<p>Used in Incident Management, Service Management, Inventory Management, Root Cause Analysis, Change Management, and Request Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, view, and close Call reports, Incident tickets, and Root Cause Analysis tickets. ■ Search the ServiceCenter knowledge base. ■ Open, review, approve, deny, and retract changes within Change Management. ■ Open and close quotes and orders within Request Management.
SYSTEMS ADMIN	<p>Used in Incident Management and Change Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, and view Incident tickets and requests for change. ■ Search the ServiceCenter knowledge base. ■ Open, review, approve, deny, and retract changes.

User Profile	Privileges
SYSTEMS SUPPORT	<p>Used in Change Management and Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, view, and close Incident tickets. ■ Log, reopen, find, fill, and print tickets. ■ Perform advanced search. ■ Gain database access. ■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.
TECH	<p>Used in Inventory Management, Root Cause Analysis, Change Management, and Request Management....</p> <ul style="list-style-type: none"> ■ Open, update, and view Root Cause Analysis tickets. ■ Reopen, find, and fill tickets. ■ Perform advanced search. ■ Create personal inboxes. ■ Approvals and alerts within Change Management. ■ All print and query options within Change Management. ■ All approval and print options within Request Management. ■ Most query options within Request Management.
TECH LEVEL 2	<p>Used in Root Cause Analysis to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, and view Root Cause Analysis tickets. ■ Reopen, find, and fill tickets. ■ Perform advanced search. ■ Create personal inboxes.
TELECOMS	<p>Used in Change Management and Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"> ■ Open, update, view, and close Incident tickets. ■ Log, reopen, find, fill, and print tickets. ■ Perform advanced search. ■ Gain database access. ■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.

User Profile	Privileges
TRAINING	<p>Used in Change Management and Incident Management to grant the following privileges:</p> <ul style="list-style-type: none"><li>■ Open, update, view, and close Incident tickets.<li>■ Log, reopen, find, fill, and print tickets.<li>■ Perform advanced search.<li>■ Gain database access.<li>■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.
WAN SUPPORT	<p>Used in Incident Management and Change Management to grant the following privileges:</p> <ul style="list-style-type: none"><li>■ Open, update, view, and close Incident tickets and requests for change.<li>■ Log, reopen, find, fill, and print tickets.<li>■ Perform advanced search.<li>■ Gain database access.<li>■ Create duplicates, allow inefficient queries, and check for incident duplicates on a device.<li>■ Alerts and approvals within Change Management.<li>■ All print and query options within Change Management.

Central Administration Utilities

The Central Administration Utilities give you the ability to view and edit existing users in the operator record, as well as edit the user's contact record, assignment groups, and message groups from one central place. They also help the system administrator to gain access to adding new users and setting the proper security controls. To learn more about adding users and setting security controls, see the following topics.

- *Viewing and Editing User Data* on page 144.
- *Adding Users* on page 146.
- *Creating an Operator Record* on page 147.
- *Capability Words* on page 169.
- *Passwords* on page 189.
- *System Wide Company Record* on page 196.
- *User Administration* on page 214.

See the *ServiceCenter Application Administration Guide* to learn more about assigning profiles to each user for the ServiceCenter applications.

There are two ways to access the Central Administration Utilities functions within ServiceCenter:

- Via **Command line** shorthand notations from command prompt.
- Via the **menu option**.

Command Line Access:

- ▶ Enter **cau** on any menu command line.

-or-

Menu Access:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Administration**.

The Information/Security/Insight menu is displayed.

- 3 Click **User Administration** in the *Security* structure.

The Central Administration Utilities menu is displayed (Figure 3-1 on page 143).

The tabs in the form shown in Figure 3-1 on page 143 represent the options available to the system administrator to centrally manage users' access and privileges, and conduct searches on contacts and operators.

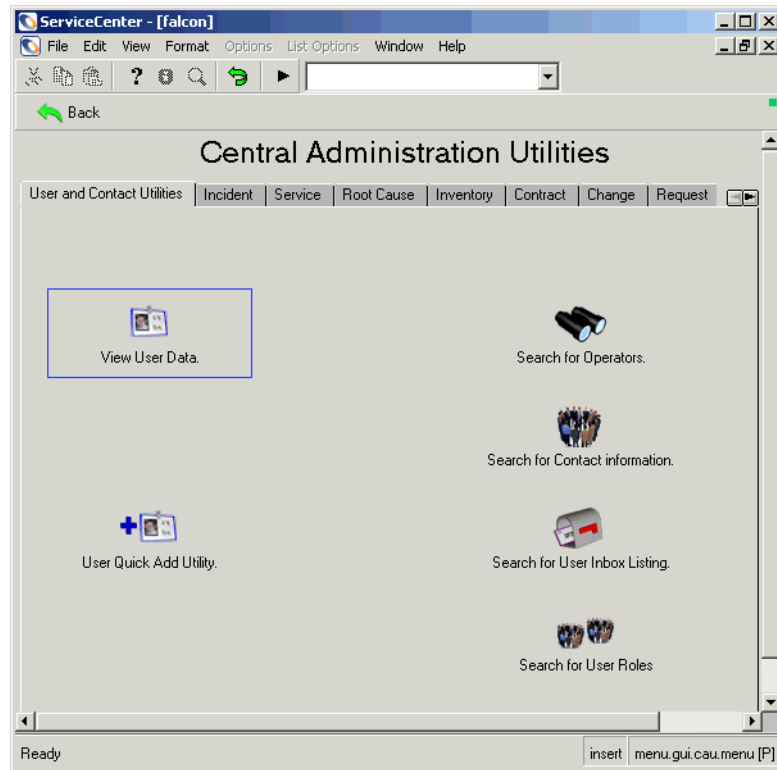


Figure 3-1: Central Administration Utilities home menu

User and Contact Utilities

Utility	Description
View User Data	View and edit existing users to add or edit access and privileges settings. For details, see the following section, <i>Viewing and Editing User Data</i> .
User Quick Add Utility	Quickly add new users and their access rights to applications within ServiceCenter. See <i>User Quick Add Utility</i> on page 219 for detailed information on how to quickly add new users and their contacts within CA Utility.
Search for Operators	Search existing operators to select and edit existing user data.
Search for Contact information	Search existing contact information to create or modify contact records.
Search for User Inbox Listing	Search existing user inbox listings.
Search User Roles	Search existing user roles and see the capabilities of each role.

Viewing and Editing User Data

View and edit existing users to add or edit access and privileges settings within the following records, profiles, and message and assignment groups.

- Users
- Contacts
- Service Management profiles
- Incident Management profiles
- Root Cause Analysis profiles
- Inventory/Configuration Management profiles
- Change Management profiles
- Request Management profiles
- Assignment groups
- Change Management message groups

Each tab allows you to view and edit user data, so that you can easily identify where changes need to be made to the user's information.

To view and edit existing users and their security information:

- 1 Click **View User Data**.
- 2 When prompted, select a user from the existing users list to view.

The user's information will be displayed, as shown in Figure 3-2 on page 145. This screen allows the administrator to quickly see that the user being viewed, in this case *BOB.HELPDESK*, has a profile for Root Cause, Service Management, and Incident Management. This user will have the same Service and Incident Management capabilities as all of the other members of the HELPDESK groups. However, *BOB.HELPDESK*'s Root Cause access will be defined differently by his Root Cause profile.

Login Name	Full Name	Phone	Printer
BOB.HELPDESK	HELPDESK, BOB	(858) 481-5000	

OPERATOR RECORD

General | Assignment/Message Groups

Login Name: BOB.HELPDESK

Contact Name: HELPDESK, BOB Email Addr.:

Application Profiles

User Role:

Service Profile:

Incident Profile:

Root Cause Profile:

Inventory Profile:

Contract Profile:

Change Profiles:

Request Profiles:

Selected line is row 1 of 1 records operator.qbe.g [P]

Figure 3-2: View and edit user data within CA Utility

- 3 When you add or edit user information, click **Add** or **Save** to update the information.

Warning: Do *not* edit the operator record for the logged on user. If you need to revise the system administrator record with which you logged on, create a second record with a *different* login name and the *same* capabilities. You can do this by changing the login name and *adding* the record. Do this by clicking **Add**, *not* **Save**. Then log on using the new login and edit your record.

Note: If a user is logged on, any changes you make to that operator's record are implemented *after* the user logs out and logs back on.

To add a new blank profile, select **User Role**. For this example, **Helpdesk Tech** was selected. See *User Role* on page 132 for access details on each of the user roles.

The User Role you select assigns the appropriate application profile for that user's role.

Note: Be sure to click the **Fill** button so that all application profile information is filled correctly when a user role is selected.

If you need to make modifications to the application profile that will be unique to the Operator being set up, either fill in the profile information or modify the information as needed. See the *ServiceCenter Application Administration Guide* for detailed information about setting up user profiles, and selecting privileges and views options.

- 4 Click **Add**, which will return you to the previous menu.

The new profile has been saved and will be added. A message is displayed, stating: *User Service Profile record added*.

You can continue to add or edit profiles, as needed.

- 5 Click **Back** to return to the Central Administration Utilities main menu.

Adding Users

ServiceCenter is shipped with several default users already pre-defined with operator records. Each type of user has different system rights and a different view of the system, as presented by a startup menu. You may copy and modify records from a default user's operator template for your new user, or build new records from scratch.

You must complete the following tasks to add a user to your system:

- *Creating an Operator Record* on page 147 where the fields in the Operator record are defined to help you create a new user.
 - *Capability Words* on page 169 in which you define capability words for your new user.
- *Creating a Startup Menu* on page 174 for your user.
- *Creating a Menu Record* on page 178.

Creating an Operator Record

While the *System Wide Company Record* designates system-wide settings, the *Operator* record designates specific settings for each user (*Operator* record). The *Operator* record identifies the login name and password, which are required for access to the ServiceCenter system. This section describes the fields in the *Operator* record and provides instructions for creating an *Operator* record. We will create a new *Operator* record, using Quick Add Utility in CAU.

There are two ways to access the *Operator* record to add and edit a user within ServiceCenter:

- a Via the *Operator* record.
 - ▶ In the system administrator's home menu, click **Administration** in the Utilities tab. Then click **Operators** in the Security structure of the Information/Security/Insight menu.
- or-
- b Via the User Quick Add Utility in CAU.

To access the User Quick Add Utility in CAU:

- 1 Click **Administration** on the Utilities tab.
- 2 Click **User Administration** in the Security structure of the Information/Security/Insight tab.
- 3 Click **User Quick Add Utility**.
A dialog box will display, prompting you to enter the name of the User to be added.
- 4 Enter the name of the User to be added.
A dialog box is displayed that asks if you want to clone another user.

- a Click **Yes** to clone another user. Select an existing User from the drop-down list.

-or-

- b Click **No** to create a user from scratch.

Note: Some fields are filled in automatically by ServiceCenter.

Note: The following definitions (Figure 3-3 on page 148) use the *BOB.HELPDESK* operator record as an example.

General Tab

This tab contains date, time zone, application profile, and other general information about a selected operator (see Figure 3-3).

The screenshot shows the ServiceCenter application window titled "ServiceCenter - [Operator: BOB.HELPDESK]". It features a menu bar (File, Edit, View, Format, Options, List Options, Window, Help) and a toolbar with icons for OK, Cancel, Previous, Next, Add, Save, Delete, Views, Find, and Fill. Below the toolbar is a table listing operators:

Login Name	Full Name	Phone	Printer
ADMIN	Work Management Admin		
BOB.HELPDESK	HELPDESK, BOB	(858) 481-5000	
CA 1	CM TEST CA 1	(858) 481-5727	
CA 2	CM TEST CA 2	(858) 481-5728	

Below the table is the "Operator Record" section with tabs for General, Security, Login/Contact Profiles, Startup, Notification, Security Groups, and Billing Information. The "General" tab is active, showing the following fields:

- General:** Login Name: BOB.HELPDESK, Full Name: HELPDESK, BOB, Language: English, Default Company: PRGN.
- Date Information:** Time Zone: US/Pacific, Format: dd/mm/yy.
- Time Limits:** Database: 00:00:10, Asset Mgmt: 00:00:10, Change Mgmt: 00:00:10.
- Application Profile:** User Role: HELPDESK TECH LEV, Service Profile: HELPDESK TECH, Incident Profile: HELPDESK TECH, Root Cause Profile: TECH, Inventory Profile: INITIATOR, Contract Profile: DEFAULT, Change Profiles: HELPDESK, Request Profiles: REQUESTOR.

At the bottom, it indicates "Selected line is row 2 of 32 records retrieved" and provides a file path "insert operator.qbe.g [P]".

Figure 3-3: General tab in the operator record

Field	Description
Login Name	Operator's ID (login ID) that will be used for logging on to ServiceCenter. This field is required. Note: Do <i>not</i> put underscores in a login name. In text mode, an underscore is translated into a space and the name is not recognized.
Language	Controls the operator's principal language used inside ServiceCenter. The default is English. This field is required.
Full Name	Operator's full name.
Default Company	Default company code of this user's company. This could be one of the company codes that display in the System Wide Company Record. Since ServiceCenter handles multiple company codes, you may not want to put a default company name here. For more information, refer to <i>Company File</i> on page 118.

Date Information

Field	Description
Time Zone	Optional field containing the operator's time zone. This field can be left blank to default to the time zone set up in the <i>System Wide Company Record</i> . The Fill function can be used to access the Time Zone (<i>tzfile</i>) file, if needed. For more information on Time Zone functionality and date formats, see <i>Time Zone Function and Date Formats, Chapter 6</i> .
Format	Optional field containing the date formats. You only need to enter a format to override the format set in the System Wide Company Record. The formats are: mm/dd/yy—standard US format dd/mm/yy—European format yy/mm/dd—optional format mm/dd/yyyy—standard US format dd/mm/yyyy—European format yyyy/mm/dd—optional format

See *Time Zone Function and Date Formats* on page 271 for further details on the Local Date Format functionality.

Time Limits

Field	Description
Database, Incident Management, Change Management	Amount of time to query in Database Manager (DB), Incident Management (IM) and Change Management (CM) before prompting the operator to continue. The default is entered automatically if no other value is entered. The default is either 10 seconds or the interval defined in the System Wide Company Record. The format is hh:mm:ss .

Application Profile

Field	Description
User Role	<p>The basis for assigning profile types to the operator for access and privileges within each ServiceCenter application. See <i>User Role</i> on page 132 for more details about the user roles and their access rights and privileges within the ServiceCenter applications.</p> <p>Note: Be sure to click the Fill button so that all application profile information is filled correctly when a user role is selected.</p>
Service Profile, Incident Profile, Root Cause Profile, Inventory Profile, Contract Profile, Change Profiles, Request Profiles	User Role profile assignments for each ServiceCenter application.

Security Tab (Includes Account Management Controls)

Security includes account management controls for when and how passwords are changed within ServiceCenter. It also covers measures to detect and prevent security intrusions into the system.

General	Security	Login/Contact Profiles	Startup	Notification	Security Groups	Billing Information								
Password Information Password: <input type="text"/> Last Reset: <input type="text" value="10/02/02 14:59:32"/> Last Reset By: <input type="text" value="falcon"/> Logins Since Reset: <input type="text" value="2"/>				User Session Information Max Logins: <input type="text" value="5"/> Default: 2 Disallow Forced Logoff? <input type="checkbox"/> Unlimited Sessions? <input checked="" type="checkbox"/> Expire Password? <input type="checkbox"/>										
Login Information Last Login: <input type="text" value="02/28/03 19:22"/> Failed Login Count: <input type="text" value="0"/> Locked Until: <input type="text"/>				User Lockout Information Prevent Lockout? <input type="checkbox"/> Administrative Lockout? <input type="checkbox"/> User has been Locked? <input type="checkbox"/> Lockout Reason: <input type="text" value="Not Locked"/>										
LDAP Information LDAP Base Name: <input type="text"/>				Password History <table border="1"> <thead> <tr> <th>Reset By</th> <th>Change Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>			Reset By	Change Date						
Reset By	Change Date													
Template Information Template: <input type="text"/>														

Figure 3-4: Security tab in the operator record

Password Information and System Lockout Reset Information

The Password Information structure addresses setting a user's password. It also displays historical information for lockouts a user has experienced.

Field	Description
Password	Operator's password, if required at login. If left blank, no password is required for this operator. (Permission <i>not</i> to use a password is defined in the <i>Company</i> information record.) The characters in this field are not displayed at login. You can change an operator's password here. Users can change their own passwords, only if they have permission as defined in their operator records.

Note: If the *System Wide Company Record* specifies password expiration, every user is required to have a password. If the password is not specified here and the *System Wide Company Record* requires it, the first time the user logs in she or he will be prompted to enter a password that will then be saved in that user's *Operator* record. This option allows new users to "pick" their own password the first time they log on.

User's Lockout Historical Information

Within the Password Information structure, the system displays historical information on lockouts a user has experienced.

To reset a user from being locked out of the system the system administrator can access the user's operator record and select **Options > User Lockout Reset**.

For an explanation of the operator record Options menu items and other security control issues, refer to the following topics.

- *Options Menus—Operator Record* on page 167.
- *User Locking Information* on page 154.
- *Passwords* on page 189.
- *Restricting Logins* on page 192.
- *Startup Tab (Includes an Operator's System Capabilities)* on page 158.
- *Capability Words* on page 169.
- *Levels of Restriction* on page 192.
- *Applying System Quiesce to Restrict Logins* on page 193.

Login Information

Field	Description
Last Reset	Date when the operator last changed his or her password. If the password expiration is set, the user is prompted to enter a new password upon expiration. This field is automatically filled in by ServiceCenter at that time.
Last Reset By	Name of on-site support person who last reset the password.
Logins Since Reset	Number of logins since the password was last reset.
Last Login	Date and time of the operator's last access to ServiceCenter. This record is maintained by the login application. The activation and expiration in the System Wide Company Record is based on this date.

Field	Description
Failed Login Count	Number of times the user's login failed. When the user lockout is reset, this box is cleared and the user is no longer locked.
Locked Until	Date and time the account was unlocked, if locked out previously for failed logins. (Locked until is set in the System Wide Company Record.) When the user lockout is reset, this box is cleared and the user is no longer locked.

LDAP Information

Field	Description
LDAP Base Name	Defines a different branch of the LDAP directory structure for this user. For additional information about LDAP fields, see the <i>LDAP Server Interface</i> chapter in <i>System Administrator's Guide, Volume 2</i> .

Template Information

Field	Description
Template	Name of the template used to merge this user's operator record. For further information on templates, refer to <i>Operator Templates</i> on page 184. Note: If you are creating a user with a login name and a template name, it is best to work with a blank template rather than fill in all the blanks.

User Session Information

Field	Description
Max Logins	Allows a user multiple logins (if the Unlimited Sessions check box is <i>not</i> selected). The default is based on the System Wide Company Record.
Disallow forced Logoff?	Prevents this user's session from being "killed" by another user or process.
Unlimited Sessions?	Allows this operator to continually log on and have an unlimited number of open ServiceCenter sessions. The default is <i>off</i> .
Expire Password?	When checked (<i>true</i>), this forces the user to change his or her password at the next login.

User Locking Information

This structure determines how system and administrative locks will be handled with this user login and displays information as to how lockouts have occurred and when a locked out user has been reset (cleared of the locks). When a user lock has been reset, the **Failed Login Count**, **Locked Until**, and **User has been Locked?** fields are cleared.

Field	Description
Prevent Lockout?	Prevents this user's session from being locked by the system.
Administrative Lockout?	Used by the system administrator to manually lock out a user. Note: This can be inactivated in the System Wide Company Record.

Field	Description
User has been Locked?	<p>For informational purposes. This box is checked (<i>true</i>) if this user has been locked out. When the user lockout is reset, this box is unchecked (<i>false</i>) and the user is no longer locked.</p> <p>Note: Even though this can be changed by some RAD application or Format Controls, it is best practice to not manually change the information in this field.</p>
Lockout Reason	<p>Reason user has been locked out of the system by the system administrator.</p> <p>The lockout reasons are as follows:</p> <ul style="list-style-type: none"> ■ Locked by Admin—user has been locked out by the system administrator. ■ Max Failed Logins—user has reached the set maximum number of failed logins. ■ Account Inactivation—user account has been inactivated. ■ Account Expiration—user account has expired. If user is locked out for this reason, this lockout cannot be reset. A new operator record has to be added. Account Expiration is set in the System Wide Company Record. <p>If the user is not locked out of the system, the following is displayed instead:</p> <ul style="list-style-type: none"> ■ Not Locked—user is not locked out. <p>Note: If the user is locked out of the system, the User has been Locked? field is automatically checked (<i>true</i>).</p>

Password History

Field	Description
Reset By	For historical purposes. Name of on-site support person who reset the user's password.
Change Date	For historical purposes. Date when the user's password was last reset. This field is automatically filled in by ServiceCenter at that time.

Login/Contact Profiles Tab

The Login/Contact Profiles tab includes setting up login and contact profiles, and Incident Management assignment groups.

The screenshot shows a web-based configuration interface for an operator record. The 'Login/Contact Profiles' tab is active. It is divided into two main sections: 'Login Profile' and 'Contact Profile'.
 - **Login Profile:** Includes a 'Resource Type' dropdown menu set to 'Resource', a 'Message Level' dropdown menu set to 'Information', a 'Max Attachment Size' text input field, a 'Message Count' text input field with the value '5', a 'Message Queue' checkbox which is checked, and a 'Named User?' checkbox which is unchecked.
 - **Contact Profile:** Includes a 'Phone' text input field with '619-481-5000', a 'Department' dropdown menu set to 'customer service', a 'Manager' text input field, and a 'Room' text input field with '123'.
 - **Assignment Groups:** A list box containing 'AUTO' and several empty rows, each with a small icon to its right.

Figure 3-5: Login/Contact Profiles tab in the operator record

Login Profile

Field	Description
Resource Type	Used to assign tickets in the Work Management application. With the exception of templates, this field is required.
Message Level	Level of messages to store in the message queue for this operator. If this field is left blank, the system defaults to the Informational level and <i>all</i> messages are stored. The selections in the drop-down list are: <ul style="list-style-type: none"> ■ Information—writes informational, action, and error messages to the message queue. ■ Action—only writes action and error messages to the message queue. ■ Error—only writes error messages to the message queue. <p>Note: Message levels affect on-screen messages only and have nothing to do with the <code>msglog</code> file.</p>
Max Attachment Size	Defines the maximum size of a file that this operator can insert into an OLE container. For more information on OLE containers, see <i>File Attachments and OLE Containers</i> on page 69.

Field	Description
Message Count	Number of messages to save in the queue.
Message Queue	Switches on the message queue. The default is <i>off</i> .
Named User?	Identifies this user as a <i>named user</i> who is granted a guaranteed connection to the system. For more information on named users, refer to <i>Named Users</i> on page 186.

Contact Profile

Field	Description
Phone	Operator's telephone number.
Department	Name of the operator's department.
Manager	Name of the operator's manager.
Room	Room number, department name, or any other appropriate identifier for the operator.

Assignment Groups

Create Incident Management assignment groups, so that incident tickets can be assigned to the appropriate departments and people for resolution. See the *ServiceCenter Application Administration Guide* for details.

Startup Tab (Includes an Operator's System Capabilities)

The fields in the Startup tab define an operator's system rights (capabilities) and identifies the initial user menu, which permits access to specific applications and utilities in ServiceCenter.

The screenshot displays the 'Startup' tab within an operator record configuration window. The window has a tabbed interface with the following tabs: General, Security, Login/Contact Profiles, Startup (selected), Notification, Security Groups, and Billing Information.

The 'Startup' tab contains the following sections:

- Initial Application:**
 - RAD Name:
 - Activate Command Line on Startup:
- Parameter Names and Values Table:**

Parameter Names	Parameter Values
name	MAIN MENU
prompt	
string1	HOME
- Execute Capabilities:** A list of capabilities with dropdown menus and icons.

partial.key	[icon]	[icon]
SysAdmin	[icon]	[icon]
SQLAdmin	[icon]	[icon]
	[icon]	[icon]
	[icon]	[icon]
	[icon]	[icon]
- Query Groups:** A list of query groups with dropdown menus.

Basic
Intermediate
Advanced
- Months:** A table with two columns: Full Name and Abv.

Full Name	Abv.

Figure 3-6: Startup tab in the operator record

Initial Application

Field	Description
RAD Name	<p>Name of the initial RAD (ServiceCenter) application to run for this operator. If this field is blank, the default is <code>menu.manager</code>.</p> <p>Note: The <code>menu.manager</code> application takes you from one menu to another. For example, Menu manager allows you to access the Incident Management menu from the system administrator's home menu.</p>
Activate Command Line on Startup	<p>Checking this box (<i>true</i>) makes the command line available for use on startup.</p>
Parameter Names	<p>Parameter name. The parameters are dictated by the application. Primarily, three names are used:</p> <ul style="list-style-type: none"> ■ name—menu record accessed if the session is run in the text mode. ■ prompt—text format accessed for the menu. ■ string1—menu accessed if the session is run in Windows mode.
Parameter Values	<p>Values passed into the application through the parameter names. This value helps identify what is displayed when a user starts a session. The value can be either a menu name or a format name, depending on the parameter.</p> <p>Note: If the Parameter Value field is blank, the default is Main Menu. At logon you are sent to the system administrator's home menu. To send a user to a different menu, you can specify <code>menu.manager</code> as the name of the initial application to run and enter an existing menu name as the parameter value.</p>

Field	Description
Execute Capabilities	<p>Capabilities you want this user to have. This array defines what ServiceCenter functions this operator can access. You can use the Find function on this array.</p> <p>Note: These capabilities are the allowable functions for this operator and must exist in the capability file.</p>
Query Groups	<p>Defines the Change Management groups to which the operator belongs. You can enter the following types of groups:</p> <ul style="list-style-type: none"> ■ <i>change manager group</i>—approval group of this operator’s manager. ■ <i>change reviewer groups</i>— Reviewer groups to which this operator belongs. (Reviewers examine the tasks and phases of a change, but do not have approval authority.) ■ <i>change approval groups</i>—groups for which this operator can approve changes. <p>Note: See the <i>ServiceCenter User’s Guide</i> for an introduction to Change Management, and the <i>ServiceCenter Application Administration Guide</i> for more information on approval groups.</p>

Months

Language used to report months for this user in ServiceCenter records.

Field	Description
Full Name	Full name of the months.
Abrv	Three letter abbreviation for the names of the months. If these fields are left blank, the months default to English.

Notification Tab (Includes Contact Information)

The Notification tab contains contact information for the operator.

Standard Notifications	Pager Information
Email Addr.:	Phone No.: 481-8000
FAX: 481-1751	Vendor: Peregrine
Mailbox:	Group: Helpdesk Group
Printer: [Fill]	Type: [dropdown]
Client Printing	Name:
Lines Per Page:	PIN:
Page Width:	Voice MB:
Header Format:	2-Way Page? <input type="checkbox"/>

Figure 3-7: Notification tab in the operator record

Field	Description
E-Mail Addr	operator's e-mail address.
FAX	Optional information field for the operator's fax number. Note: Using ServiceCenter for e-mail, faxing, and paging is discussed in the <i>ServiceCenter Event Services</i> documentation.
Mailbox	Names the Microsoft Outlook mailbox to be used by Work Management. The system checks the calendar in the user's mailbox and integrates any commitments into the Work Management schedule. For additional information, refer to Appendix B of the <i>Work Management User Quick Start Guide</i> .
Printer	An optional field allowing you to select a valid printer device name. This field sets the default printer for the operator and must be defined in the hardware configuration file. If the field is left blank, the system default printer is used. In this example, the Fill option was used to select the Windows NT printer (sysprint).

Client Printing

Field	Description
Lines Per Page	Maximum number of lines per page the printer is capable of printing. The default setting is 60. This is a client printing option only.
Page Width	Maximum line width (number of spaces) to ensure that the page is properly printed. Eighty (80) is the setting for standard 8.5 x 11 inch paper. This is a client printing option only.
Header Format	Form name for a report header that is different from the default. This is a client printing option only.

Paging Information

In order for a page event to take place, the applicable information about the contact's or operator's pager must be entered. To learn more about page events, see the *ServiceCenter Guide to Event Services*.

Field	Description
Phone No	Operator's pager number.
Vendor	Name of vendor with which the contact is associated.
Group	Name of group to which the operator belongs.
Type	Operator's resource type.
Name	Operator's full name.
PIN	Operator's personal identification number.
Voice MB	Operator's voice mail box.
2-Way Page?	SCAutomate function allowing a user to update or close an incident ticket via pager. If this field evaluates to <i>true</i> (<i>checked</i>), the contact possesses two-way paging capabilities.

Security Groups Tab

The Security Groups tab (Figure 3-8 on page 163) establishes the user's membership in a group whose access to certain files in the system is restricted by the Mandanten feature. This feature allows a system administrator to limit a group's access to certain data or allow groups to share prescribed data.

For example, a department's security group designation may limit the database access of its members to those incident tickets belonging to that department. For more information about the Mandanten feature, see *Mandanten Database Protection, Chapter 8*.

Security Groups:

Figure 3-8: Security Groups tab in the operator record

Billing Information Tab

The Billing Information tab records the labor rate for the operator in the currency selected for the system. The rate in this tab is used for calculating the cost of servicing a contract in the Contract Management application. For example, when a technician repairs a device, the system multiplies the time spent with the labor rate as it is displayed in the Billing Information tab and bills the appropriate contract.

Hourly Rate:	<input type="text" value="40"/>
Rate Currency:	<input type="text" value="US Dollar"/>
Display Currency:	<input type="text" value="US Dollar"/>
GL Number:	<input type="text"/>

Figure 3-9: Billing Information tab in the operator record

Field	Description
Hourly Rate	The hourly rate used to compute the cost of billing for a completed ticket.
Rate Currency	The rate of exchange to be used between currencies, based on the time a contract is granted.
Display Currency	The currency associated with the estimated cost.
GL Number	A general ledger number.

Example

The simplest way to add a user is to go into the Central Administration Utilities and open the record of an existing user with similar system rights and add a new Operator record to the database. For example, to add a system administrator with the same rights as the *FALCON* user in the standard system, change the **Login Name** and contact information and add the record to the database by clicking **Add**.

To add a ServiceCenter user from scratch:

- 1 Click **Administration** on the Utilities tab.
- 2 Click **User Administration** in the Security structure of the Information/Security/Insight tab.
- 3 Click **User Quick Add Utility**.
- 4 Enter the name of the User to be added and click **OK**.
- 5 Enter an operator's name in the **Login Name** field and click **Search**.
A dialog box will display, prompting you to enter the name of the User to be added.
- 6 Enter the name of the User to be added.
A dialog box will display, asking if you want to clone another user.
- 7 Click **No** to create a user from scratch.
Note: Some fields are filled in automatically by ServiceCenter.
- 8 Fill in the fields of the General tab (Figure 3-3 on page 148).
 - a Create a user with a Login Name of **JOE.USER**.
 - b Select **English** as the principal language to be used.
 - c Enter **Joe User** in the **Full Name** field.

- d Set the Data Base (DB), Incident Management (IM), and Change Management (CM) Time Limits.

For this example, set each field to ten seconds (00:00:10).

- e Set the **Time Zone** and **Format in Date Information**.

For this example, select the **US/Pacific** time zone. The date format is automatically set to **mm/dd/yy**, although you may select another format. For more information on time zone and date formats, see *Time Zone Function and Date Formats, Chapter 6*.

- f Assign **Helpdesk Tech** as the **User Role**.

Since the **User Role** drives the access rights and privileges for the Application profiles, these will be filled in automatically when **User Role** is selected.

When a user tries to access a ServiceCenter application, the system determines which profile to use. For example, if a user tries to access Incident Management, there is a profile stored in the **pmenv** file with a login name. If such a record is found, the system allows the user to access the application based on the assigned profile. If the system cannot locate a profile record for the user, it then searches for a default profile. If one is found and enabled, that profile will be used to determine the user's rights. If no profiles are found, the login will be declined. See the *ServiceCenter Application Administration Guide* for detailed information about setting up user profiles, and selecting privileges and views options.

- 9 Enter the **Security** information (Figure 3-4 on page 151).

- a Enter a default password for the user. The user can change this later, if desired. A password is required if the company information record either selects the **Always require password** check box or specifies a Password expiration interval; otherwise, the password can be left blank.
- b Set the number of sessions for this user by selecting the **Unlimited Sessions** check box.

- 10 Enter the **Login/Contact Profiles** information (Figure 3-5 on page 156).

- a Select **Manager** as the **Resource Type** to be used in the Work Management application.
- b Select **Information** as the **Message Level** to be stored in the message queue for this operator.
- c Set the maximum number of messages in the queue by entering 5 in the **Message Count** field.

- d Turn the message queue on by selecting the **Message Queue** check box.
 - e Enter the user's voice telephone number in the **Phone** field.
 - f Enter **support** as the name of the **Department** in which Joe User works.
 - g Enter the name of Joe User's manager.
 - h Enter a room number in the **Room** field.
 - i Select **HELPDESK** for the assignment and groups.
- 11 Enter the **Startup** information (Figure 3-6 on page 158).
- a Enter the name of the initial RAD application that runs when this user logs in.
For this example, enter **menu.manager**.
 - b Enter the **Parameter Names** and corresponding **Parameter Values**.
In the example of **joe.user**, the name field is set to **USER** to indicate that the **USER** text menu record is accessed if *joe.user* logs on in text mode. The prompt of **menu.prompt.1** is the text format containing the menu defined in the **USER** record. If **joe.user** logs on in Windows mode, **string1** indicates that the **START** menu record should be accessed. This record identifies the form (**start.fmt**) to be accessed for this menu.
 - c Enter the capability words that define the user's system access in ServiceCenter.
For this example, use the following capability words:
 - problem management
 - query.stored
 - change request
 - change task
 - d Enter the Change Management Query Groups to which this user belongs.
For this example, leave these fields blank. These fields define review and approval groups for Change Management. Because this user is not a manager, review and approval capabilities are not necessary.
 - e Enter the Months information.
Because this user is working in English, no month definitions are required.

- 12 Fill in the Notification tab fields (see page 161). These fields are optional.
 - a Enter the operator's e-mail address.
For example, enter `juser@company.com` for Joe User.
 - b Select a default printer for this user.
For example, if this user operates on a Windows NT system, you could select `sysprint.winnt`.
 - c Enter the user's paging information.
For example, simply enter the phone number for the user's pager.
- 13 Enter a group name in the Security Groups tab (Figure 3-8 on page 163).
For this example, Joe User is not a member of a security group whose access to the system is limited. Leave this tab blank.
- 14 Enter appropriate billing information for Joe User (see page 164).
For example, enter an hourly rate of 45 in US Dollars.
- 15 Click **Add** to add the operator record to the database.
A message is displayed stating: *Record added to the operator file.*

Options Menus—Operator Record

The options menu located in CAU contains the following items.

Option	Description
Validity Lookup	Checks the data in the current field against the ServiceCenter <i>validity table</i> for that field.
Export/Unload	Allows you to unload all the records appearing in a record or QBE list to an external file.
Reset Operators Password	Sets the password for the operator listed to the setting specified in the System Wide Company Record, such as the prompt for value or reset to user name. For more information on the System Wide Company Record, see <i>System Wide Company Record</i> on page 196.

Option	Description
User Lockout Reset	Resets locked user field in the operator record. Does not work if the operator has already been expired. Note: The operator record needs to be saved to complete the lockout reset. If the operator record is changed before the lockout reset or before the operator record is saved, then the user's lockout will not be reset and a red exclamation point (!) is displayed with the following message in the status bar: <i>*This record has changed since you selected it.</i>
View Operator	Accesses the user's operator record.
Expand Array	Displays a separate window with an expanded version of the highlighted array, allowing you to enter or remove values in the array.
Completely Remove User	Delete this user's operator record, contact record, and profiles. Also removes this user from all assignment and message groups. Warning: Information will be permanently deleted from the ServiceCenter system.

List Options Menu—Operator Record

The List Options menu is available when a QBE Record list is displayed.

List Option	Description
Mass Add	Allows you to modify selected records in a file and add them to the database, while leaving the original records in place. An example of this might be to prepare a list of operator records for export to another system. If the new system requires an identifying prefix for each, mass add can add duplicate records to the database bearing this prefix. A query can then find the new subset, which can be exported to an external file using the mass unload option.
Mass Update	Allows you to update all the records in a file. This procedure overwrites the original records. An example of this might be to contact information from the contacts file.
Mass Delete	Allows you to delete all the records displayed in a QBE record (or QBE) list. Query for a certain subset of records and select Mass Delete. You are prompted to confirm the action.

List Option	Description
Mass Unload	Accesses the Unload/Export Facility form where you can create an external copy of all records in the currently displayed contacts QBE list.
Expire Passwords	Allows you to expire the passwords of all the records displayed in a QBE record list. Query for a certain subset of records and select Expire Passwords.
Count	Counts the number of records in the current QBE Record list.
Refresh	Updates the current list.
Modify Columns	Displays a dialog box where you can change the fields that determine the column headings of the QBE Record list.
Export to Excel	Exports the current QBE Record list to a Microsoft Excel spreadsheet. Excel automatically opens with the list placed in a spreadsheet. Basically, you can export information to any product that has DDE (Dynamic Data Exchange) support. This DDE function requires Excel 95 or later. Note: This option is available only on Windows clients.
Export to Text File	Exports the QBE Record list to a text file. This option is not part of the DDE support and can be run from clients other than those operating in Windows.

Capability Words

User *capabilities* are defined using *Capability* words. Within the *Operator* record, *Capability* words for a user allow the user access to specific applications and utilities in ServiceCenter. Capabilities also provide security. For example, an end-user does not receive administrative capabilities.

Capabilities are assigned in the *operator* record, through the *Execute Capabilities* array. (See *Security Tab (Includes Account Management Controls)* on page 150.)

Note: These capabilities can be overridden by the user profiles set up in each ServiceCenter application.

Predefined *capability words* are stored in the *capability* file. The *capability* file can be accessed from two locations:

- Administration menu
- *Operator* record

ServiceCenter's applications and utilities recognize the following words, which define allowable functionality for a user:

Capability Word	Description
AlwaysAdmin	Defaults Administration mode to <i>true</i> when using the Database Manager.
CM3Admin	Allows access to all CM3 (Change Management) Applications for Administration. CM3Admin does not provide access to tasks and changes. Change Management task and change provide that functionality.
Db2Admin	Provides DB2 Administrator Capability.
Debug	Allows a non SysAdmin user to do debugging for testing purposes. Normal users should not have this capability word unless that user is involved in debugging.
Endevor	Performs ENDEVOR-C1 Move Actions.
ICMAdmin	Allows complete access to Inventory and Configuration Management for user and administrative functions.
OCMAdmin	Allows complete access to all Request Management applications for user and administrative functions.
OCML	Allows access to Request Management Line Item Applications.
OCMO	Allows access to Request Management Order Applications.
OCMQ	Allows access to Request Management Quote Applications.
ProbAdmin	Allows complete access to Incident Management user and administrative functions.
QueryAdmin	Provides full access to query options and maintenance, including: query window, stored query usage and editing, and so on. This capability is intended to be used like SysAdmin , as an administrator, not for general usage. Be cautious to whom you assign this capability, because it gives access to create and modify Stored Queries. Improper changes in stored queries can adversely affect system performance.

Capability Word	Description
SMAdmin	Allows access to Service Management administration.
SQLAdmin	SQL Administrator authority.
SysAdmin	System Administrator Capability (that is, EVERYTHING).
amend suspension	Allows this user to amend the Incident Management profile rights for suspend/unsuspend.
change request	Allows access to Change Management changes.
change task	Allows access to Change Management tasks.
data administrator	Allows this user to save, add, or update supporting tables from within Service Management and Incident Management.
expedite change	Allows this user to expedite changes in Change Management.
getit.admin	Provides access to the OAA Admin module.
getit.advancedrequester	Enables access to advanced request form features in Get-Resources.
getit.answers	Provides access to answers/knowledge base through the Get.It! interface.
getit.approver	Allows this user to approve requests through the Get.It! interface.
getit.change.approver	For change approvals.
getit.change.request	For change ESS users.
getit.change.technician	Grants access to the Change Management module in Get-Services.
getit.itemployee	Grants access to the Incident Management and Service Management modules.
getit.itmanager	Grants access to the Incident Management and Service Management modules.
getit.personalization.limited	Allows users to do limited personalization.
getit.portal	Allows users to view the OAA home page and portal components.
getit.receiver	Allows this user to receive items for requests through the Get.It! interface.

Capability Word	Description
getit.requester	Allows this user to make requests through the Get.It! interface.
getit.service	Provides access to Problem Management through the Get.It! interface.
help	Gives the user the ability to add or update help records through the HELP function.
inventory management	Allows access to Inventory and Configuration Management user functions.
knowledge engineer	Allows the capability to modify the adaptive learning records.
menu.commands	Provides command line access to functions from a menu.
mobile.admin	Grants access to the Peregrine Portal for Mobile user administration.
mobile.user	Grants access to the Peregrine Portal for Mobile users.
mod.time.limit	Allows user to modify the default time limit for a partially keyed query entered in either Database Manager or Change Management.
partial.key	Allows user to execute a partially keyed query in Database Manager or Change Management.
partial.key.msg.skip	Allows user to skip the partial key query message in Database Manager.
pfkey	Allows individual operators to re-map pfkeys.
problem management	Allows access to Incident Management.
programmer	Allows access to the RAD editor.
query.stored	Allows users to execute access of Stored Queries when Expert Search is selected from the Options menu of any application. The user can perform any Stored Query assigned to him/her or to a group to which he/she belongs (Query groups in operator record).

Capability Word	Description
query.stored.mod	Allows user to execute or modify Stored Queries when Expert Search is selected from the Options menu of any application. Modify access is defined as being able to modify a stored query <i>on the fly</i> , not modifying the query database. The user can perform any Stored Query which has been assigned to him or her, or to a group to which that user belongs (that is, the Query Group list in the operator record). This user can perform a <i>one time</i> modification of the query before it is executed. The user does not have access to update the query file.
query.window	Allows access to query window function in query.window application
system.build	Allows user access to old binary text format unload options. These capabilities are used to create a ServiceCenter file system from scratch and must always be available to someone.
user	Basic end-user functionality. The capability does not have access to functions such as add, delete, reset, and so on.

Accessing the Capability File

You can access the capability file from the Administrator's menu or from within an operator record.

To access the capability file from the Administrator's menu:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Administration**.
- 3 In the **Administration** menu, click **Capability Words**.



A blank capability word record is displayed.

- 4 Click **Search**.

A record list of capability words is displayed.

To access the capability file from an operator record:

- ▶ Execute the **Fill** function from the Execute Capabilities array in the Startup tab of the operator record.

Place the cursor in a blank line of the array and click **Fill** (Figure 3-6 on page 158).

A QBE list of all capability words in the system is displayed.

–or–

- ▶ Place the cursor on a specific capability word in the array and click **Find** (Figure 3-6 on page 158).

The record for that capability word is displayed.

Creating a Startup Menu

Your new user now needs an initial startup menu displaying controls appropriate to the system rights you granted in the operator record. Use ServiceCenter's Forms Designer utility to create the GUI form from which the menu is built. For detailed instructions on using this utility, see the *Forms Designer* chapter in *ServiceCenter System Tailoring, Volume 1*.

To create a user startup menu with control buttons:

- 1 In the system administrator's home menu, click the Toolkit tab.
- 2 Click **Forms Designer**.

A Forms Designer dialog box is displayed asking for a form name.

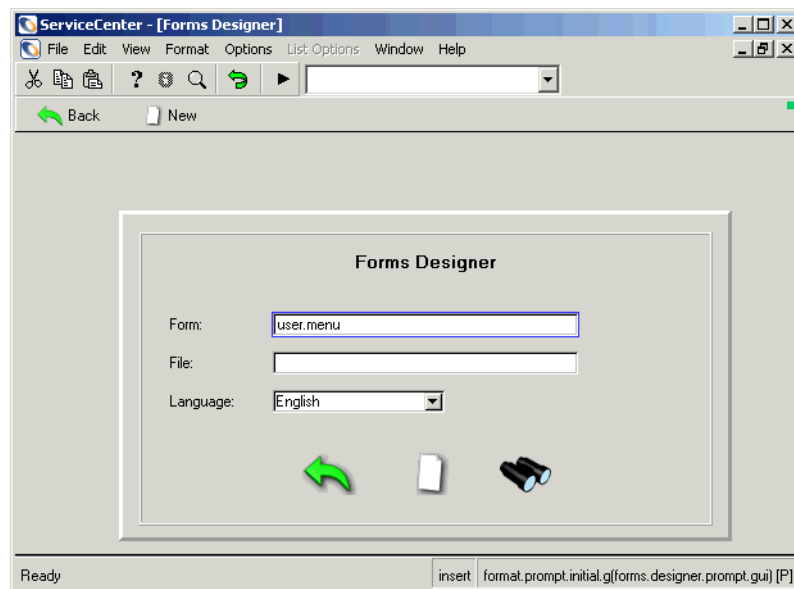


Figure 3-10: Forms Designer dialog box

- 3 Enter a form name in the **Form** field.

For example, create a form called **user.menu**.

- 4 Select a display language from the drop-down list.

If the **Language** field is left blank, the system uses the language in which ServiceCenter was installed.



- 5 Click **New**.

A prompt is displayed asking if you want to use the Forms Designer Wizard. The Wizard automatically connects the form to an existing file as it guides you through the creation process.

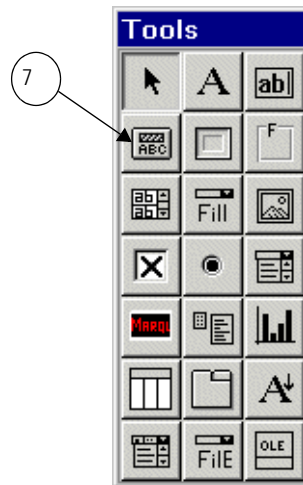
- 6 Click **No** to move directly to the designer.

A blank Forms Designer canvas is displayed, with a Properties window and a Tools palette.

The name of the form you are creating is displayed in the lower-right corner of the form.

You can add any other features to the menu that you desire, including marquees or charts. For instructions on adding various features, see *ServiceCenter Publish and Subscribe* or the Forms Designer section of *ServiceCenter System Tailoring*.

- 7 Select the **Button** tool from the tool palette.



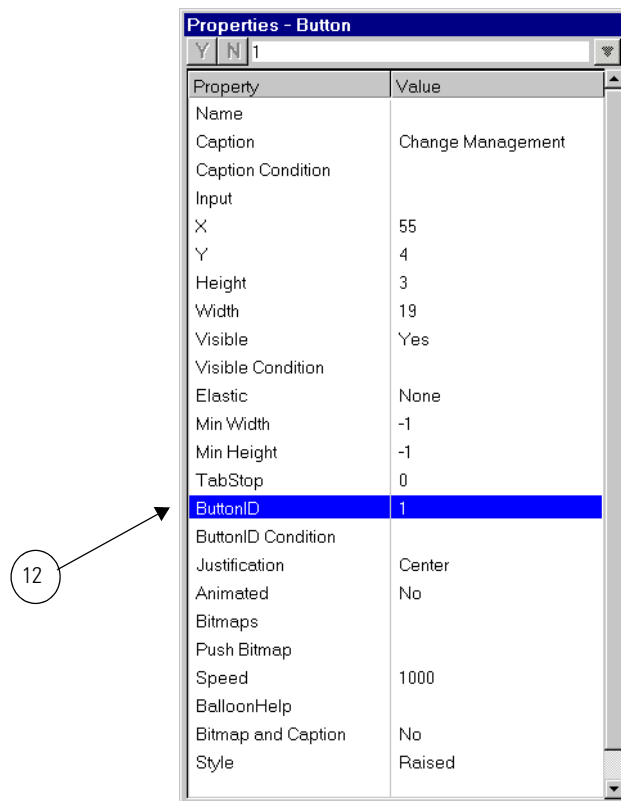
- 8 Hold down the primary mouse button while using the cursor to draw a button.

When you release the mouse button, a blank button is displayed.



The *handles* at the corners of the button means that it is selected.

The Properties window provides specific information about the selected object—the button in this case—and allows you to configure it.



- 9 In the Property list, select Caption.

- 10 Enter a caption for the button in the input field.

This caption is displayed on the button. For example, to create a button to access the Change Management, change request query screen, you could provide the caption of Change Management.

- 11 Press **Enter** or click **Y** in the Properties window.

- 12 In the **Property** list, select **Button ID**.

- 13 Enter a number for the button.

This number corresponds to the option number listed in the menu record. For example, you could add the following buttons:

- **Forms Designer** (button ID 2)—accesses the Forms Designer.
- **Database Manager** (button ID 4)—accesses the Database Manager application.
- **Logout** (button ID 3)—logs out the user. Button ID 3 is reserved by ServiceCenter for *back* and *log off*.

- 14 Press **Enter** or click **Y** in the Properties window.

- 15 Add any other buttons or items for functionality or appearance.

To place a bitmap image on a button, designate a *.bmp file in the Bitmaps field.

- 16 Click **OK** to exit the Design mode, and then click **OK** again to save your new form.

The following message is displayed in the status bar: *Record updated in the format file.*

Figure 3-11 on page 178 shows an example of a custom menu. Notice that a bevel was added around the buttons to dress up the form.

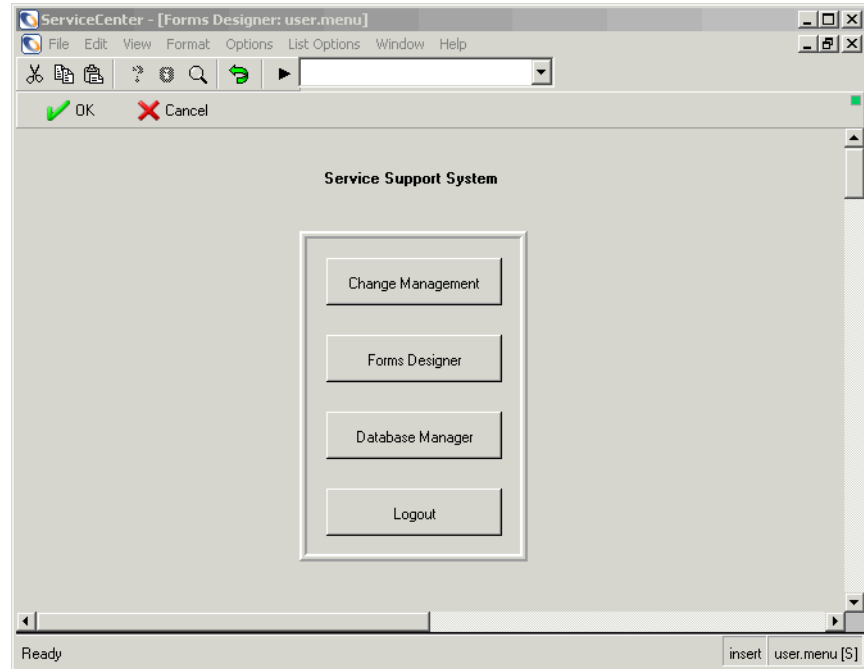


Figure 3-11: Custom menu

Creating a Menu Record

For the menu you created in the previous procedure to display at startup, you must create a menu record. ServiceCenter menus are stored in the `menu` file. Records for this file are created using ServiceCenter's menu setup.

To create a menu record:

There are two ways to create a menu record.

- Via **Command line** shorthand notations from command prompt.
- Via the **menu option**.

Command Line Access:

- 1 To create a menu record from the command line, do the following:
 - a Make sure that the command line is visible by selecting **Command Line** from the **View** menu.
 - b Type **menu** on the command line.
 - c Click the **Start Command** arrow or press **Enter**.

-or-

Menu Access:

- 1 Click the Utilities tab in the System Administrator's home menu, and then choose **Tools>Menus**.

A blank menu form is displayed.

Note: Depending on the size of your form, you may have to use the bottom scroll bar to access the fields on the right side of the form.

- 2 Enter the name of the menu in upper-case letters in the **Menu Name** field. The menu name is entered in the **Parameter Value** field of the operator record. For more information, see [Adding Users](#) on page 146.
For example, create a menu named **START**.
- 3 In the **Format** field, enter the name of the form you created in Forms Designer to be used with this menu record.

For example, enter `user.menu`, the name of the form you created in the previous steps.

The screenshot shows the 'Menu' setup form in ServiceCenter. The window title is 'ServiceCenter - [menu: START]'. The menu name is 'START' and the format is 'user.menu'. A table lists menu items with columns for ID, Description, Command, Application, Parameter Name, Parameter Value, Threat, and Condition.

ID	Description	Command	Application	Parameter Name	Parameter Value	Threat	Condition
1	Change Management		cm3r.main			true	true
2	Forms Designer		forms.designer			true	true
3	Logout		menu.manager	name	LOGOUT		true
4	Database Manager		database			true	true

At the bottom of the form, there is a status bar showing 'menu record updated.' and buttons for 'insert' and 'menu.g(db.view) [S]'.

Figure 3-12: Menu setup form

4 Create the menu options next.

The availability of the options depends on a user's Execute Capabilities, as defined in the user's operator record. Operator records are discussed earlier in this chapter.

Enter the menu option number in the **Option #** field. If this menu is a Windows form, the option number is associated with a button ID assigned to the button in the Property window of Forms Designer. Refer to the previous section, *Creating a Startup Menu* on page 174, for instructions on designing Windows menu forms. Figure 3-13 on page 181 shows the correlation between the button and the option number.

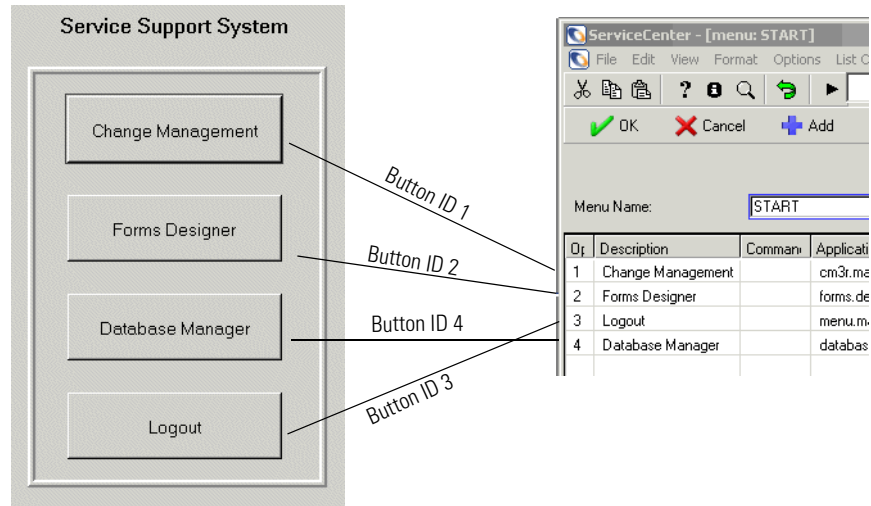


Figure 3-13: Defining menu options

In this example:

- **Option # 1**—defines the **Change Management** button.
 - **Option # 2**—defines the **Forms Designer** button.
 - **Option # 3**—defines the **Logout** button.
 - **Option # 4**—defines the **Database Manager** button.
- 5 Enter a brief description of the option in the **Description** field.
This description simply identifies the option and is not a required field. This description does *not* put a caption on the button. The caption is added in Forms Designer.
 - 6 If the option can be launched by a ServiceCenter command, enter the syntax in the **Command** field.
For example, you can enter **back** if the option is designed to return the user to the previous form. In our example, none of the options require a command.

- 7 In the **Application** field, enter the application this option should access.

In the example, enter:

- `cmr3.main` to open a new Change Management change request or access the query screen from the **Change** button.
- `forms.designer` to access the Forms Designer from the **Forms Designer** button.
- `database` to access the Database Manager from the **Database Manager** button.
- `menu.manager` to access the logout process from the **Logout** button.

- 8 Enter the type of parameter you want this option to pass in the **Parameter Name** field.

This field usually contains **name**, which represents the name of the parameter required by the specified application. While **name** is commonly used in this field, you should check the application to determine the correct parameter name.

In the example, *name* is used for the **Logout** utility.

- 9 Enter the **Parameter Value**.

This value is the parameter being passed into the application listed in the **Application** field. For example, if `menu.manager` is the application listed, the name of a menu record should be entered. If the application is `link.edit`, a link record is placed in the parameter value field.

In the example, the only necessary parameter is **LOGOUT** for the **Logout** option.

- 10 Enter **true** in the **Thread** column to start a separate thread for the application selected.

If the field is NULL, no new thread will be started.

- 11 Enter the condition, if necessary, for this option to be available to a user.

- Set the condition to **true** to make the option available to all users.

- or -

- Enter a pointer to allow the option to check the user's Execute Capabilities in the Operator Record. Use the following command:

```
index("capability word", $lo.ucapex)>0
```

where the *capability word* is listed in the Execute Capabilities array of the user's Operator record.

Capability words are discussed earlier in this manual.

`$lo.ucapex` is a program-defined variable that is assigned when the user logs in. This variable contains the user's execute capabilities, as defined in the **Execute Capabilities** array.

If ServiceCenter does not find the capability word in the operator record, the expression evaluates to false and this option is unavailable to the user.

For this example, set all the conditions to **true**.

- 12 Continue to add the options necessary for the menu.
- 13 Click **Add** or press **F2** to add the menu record.
A message is displayed stating that the record was added to the menu file.
- 14 Click **OK** or press **F3** to return to a blank menu form.

Testing a New User

If you created a menu form, menu record and an operator record using the examples provided, you can log on as **joe.user**.

If your test menu is not displayed:

- 1 Log on as a network administrator (*FALCON*).
- 2 Check the syntax in the Initial Application structure of the operator record. Ensure that:
 - a The correct application is entered in the **RAD Name** field. In this example, the application is **menu.manager**.
 - b The name of the menu is entered in the **Parameter Values** field. Using the example, **START** is entered for the **Parameter Name** of **string1**.
- 3 Check the menu record (for instructions on creating menu records, see *Creating a Menu Record* on page 178).
 - a Query for the **START** menu.
 - b When that menu record is displayed, ensure that the correct form name is entered in the **Format** field. In this example, **user.menu** should be entered.
- 4 Check the form in Forms Designer. Query for the form name entered in the menu record, that is, **user.menu**.

To test your sample data:

- 1 Ensure that your ServiceCenter server is running (for more information, see *Starting and Stopping a ServiceCenter Server* on page 20).
- 2 Start a client session.
- 3 Enter **joe.user** at the login prompt.
- 4 If you entered a password in the operator record, enter that password.
The menu you created in Forms Designer is displayed. See *Starting and Stopping a ServiceCenter Server* on page 20.

Operator Templates

As system administrator, you can use operator templates to create and maintain operator records. For example, you may design one template for managers and another for first level help desk operators. Use this template to create a group of users, and then edit the template record to change capabilities for all the users in that group. You may define as many different templates as you have user groups to employ them.

Creating a Template

You may create an operator record template from scratch or copy an existing record. It is generally easier to copy the record of a current user whose capabilities most closely match those of your intended user group.

To create a template from an existing operator record:

- 1 Open the operator record of the user whose capabilities you want to copy.
For example, use **BOB.HELPDESK**.
- 2 Replace the name of the operator with the name of your template.
For example, type **technician** in the **Login Name** field.
- 3 Remove all personal data concerning the operator, for example, full name, work information, and all the contact information listed on the Notification tab.
- 4 Leave all personal data fields blank.
- 5 Complete any fields that apply to your new user group.
For example, your new users might be members of the same department.
- 6 Click **Add**.

The following message is displayed in the status bar: *Operator record added.*

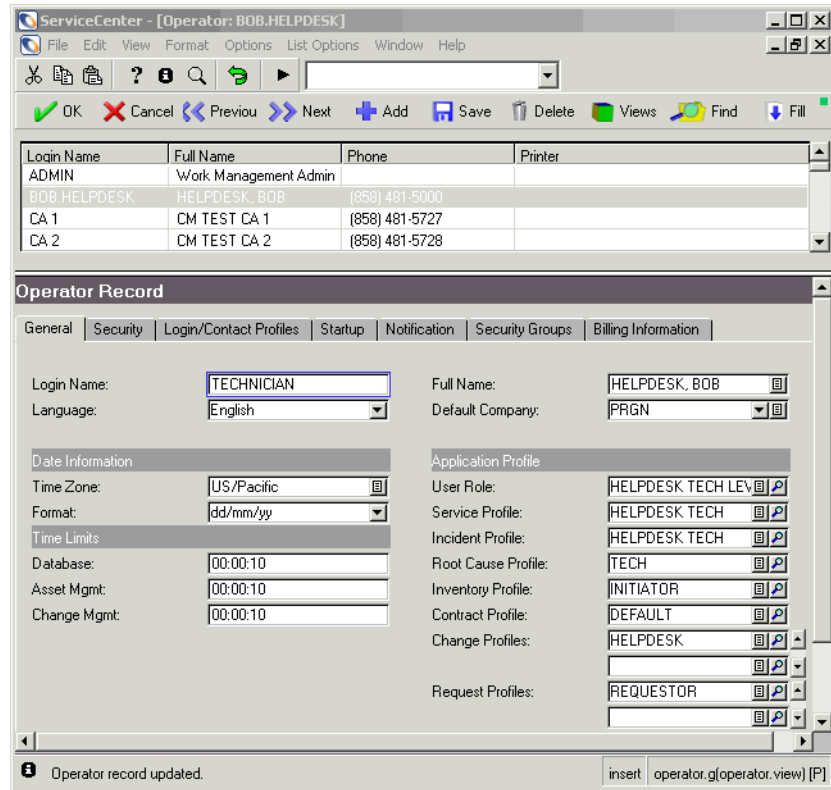


Figure 3-14: Operator record with a template applied

Applying a Template

Once you have created your template, use it to create a group of new users with identical capabilities.

To create a user from an operator record template:

- 1 Open your template.
- 2 Replace the name of the template in the **Login Name** field with the name of the new user.
- 3 Add appropriate business and contact information to the record, and then click **Add**.

The following message is displayed in the status bar: *Operator record added.*

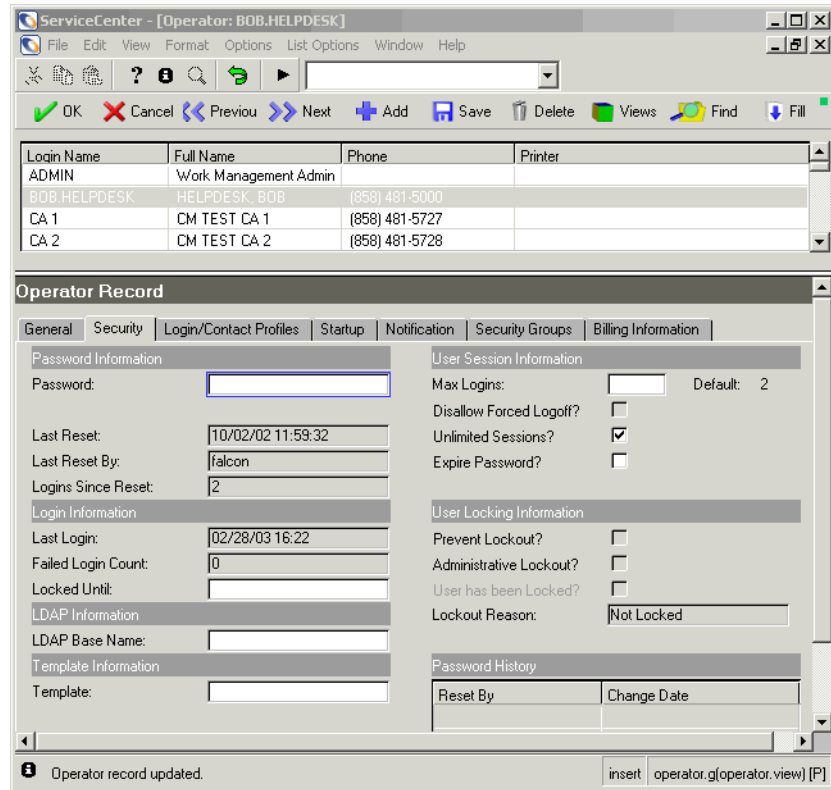


Figure 3-15: Operator record created from a template

Named Users

ServiceCenter use is granted via your Peregrine Systems Software License Agreement, which provides for two types of licensed users: Named Users and Floating Users.

Named Users are users authorized to log on to ServiceCenter under a different status than Floating Users. The number of Named Users for a system is encoded in the authorization code that enables the various features of your system. It is not related to the number of Floating Users.

Named users can be defined by a flag in their operator record, or by being included in a list of Login names for Named Users in a separate text file, the path for which is displayed in the server-side initialization (`sc.ini`) file. If the file is provided, it takes precedence over the operator records.

Define as many Named Users as you have Named User licenses. Users not defined as Named Users will take floating licenses as they log on. Once all the floating licenses have been used, no further regular logins are permitted. However, Named Users can always log on to your ServiceCenter system even when all the floating licenses are being used.

To select individual users as Named Users, mark Named User on the General tab of each individual's Operator record. See *General Tab* on page 148 for more information.

There are three steps to creating and using a Named User file on your system:

- Determine the number of Named User licenses available in your system.
- Create a text file containing the login names of your Named Users.
- Modify the initialization (`sc.ini`) file to accept Named User logins.

Determining the Number of Named Users Available

If you are not sure how many Named User licenses you purchased with your ServiceCenter system, you can run a license report from a command prompt to determine the number of Named Users available.

To run a license report:

- 1 Open a command prompt window.
- 2 Open the `RUN` directory of your ServiceCenter installation.
- 3 Type `scenter -reportlic`.

For example, you might enter:

```
C:\programs\sc\RUN\scenter -reportlic
```

- 4 Press **Enter**.

A complete list of licenses and features is displayed.

- 5 Check the number of Named User licenses available to you.

Creating a Text File of Named Users

You must create a simple text file bearing the login names of your Named Users and reference it in your initialization (`sc.ini`) file with a special parameter. Provide only as many names as you have licenses.

To create a text file of Named Users:

- 1 Open any text file editor.
In this example, we use Notepad from Windows.
- 2 Type the names of these users *exactly* as they appear in the **Login Name** field of each user's operator record.
You must type only one name per line. Spaces between names are allowed.

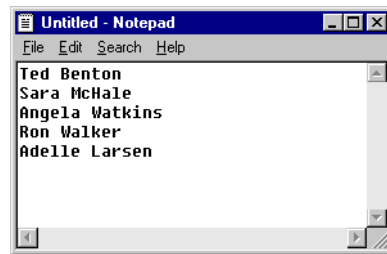


Figure 3-16: Named Users text file

- 3 From the **File** menu, choose **Save**.
- 4 Name the file, and save it to the server-side RUN directory of your ServiceCenter installation.

Modifying the `sc.ini` File

For ServiceCenter to accept logins from the Named Users you have defined, you must add the `namedusersfile` parameter to the ServiceCenter initialization (`sc.ini`) file together with the fully qualified path to the text file of names.

To edit the `sc.ini` file:

- 1 Go to the ServiceCenter Programs file directory.
- 2 Edit the `sc.ini` file with any text editor.
For example, on Windows NT, you can go to **Start>Programs>ServiceCenter>Init File** to open the `sc.ini` file with Notepad.

- 3 Add the Named User parameter (**namedusersfile**) to the bottom of the **sc.ini** file followed by a colon and the path to the text file containing the login names of your Named Users.

Example:

```
#
# Installed Configuration
#

path:c:\programs\sc\DATA
shared_memory:48000000
ntservice:ServiceCenter
log:c:\programs\sc\sc.log
bitmap_path:c:\programs\sc\BITMAPS
system:12670
auth:9FG756J2 VF375908 95281GGL 1A23JJ56
scauto:12690
namedusersfile:c:\programs\sc\RUN\names.txt
```

- 4 From the **File** menu, choose **Save**.
- 5 Exit Notepad.
- 6 Stop and restart **ServiceCenter**, so that the system changes will be recognized. Your Named Users can now log on to the system.

Passwords

Passwords play a major part in controlling system security within the **ServiceCenter** environment. See *System Wide Company Record* on page 196 to learn about setting standards, requirements, and lifetime limits for passwords.

As the **ServiceCenter** system administrator, you can change your password, and the password of any other user. Users can also change their own passwords, if they are configured to do so.

To change another user's password:

- 1 Access the operator record for that user (for instructions on accessing and modifying an operator record, see *Creating an Operator Record* on page 147).
- 2 Enter the new password in the Password field.

If the user currently has a password, that password (which is masked using asterisks) is displayed in the field.

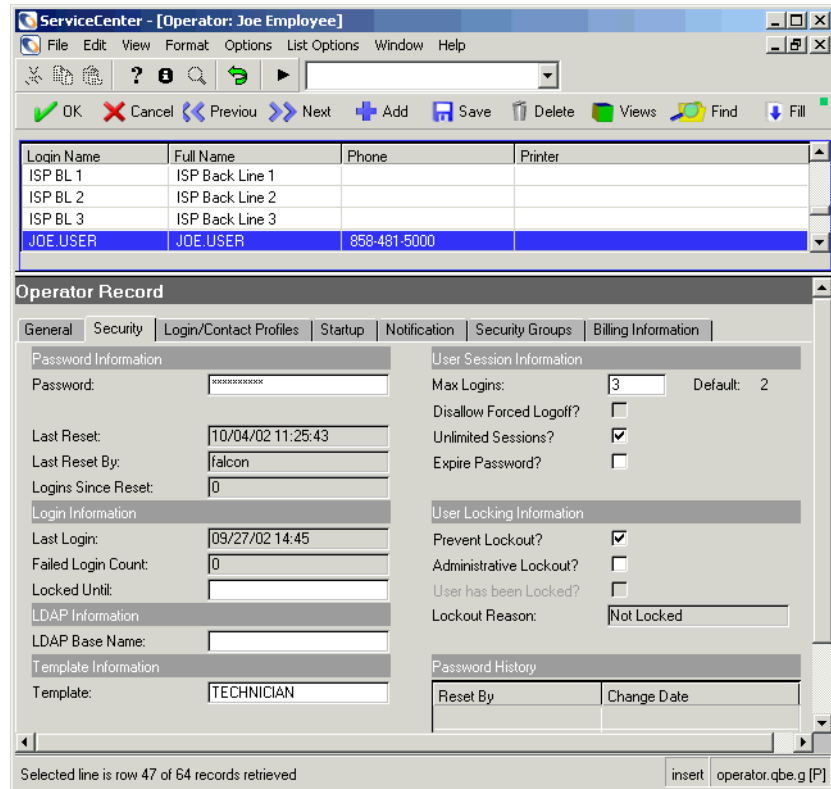


Figure 3-17: Password field in the operator record

- 3 Click Save or press F2.

The following message is displayed in the status bar: *Operator record updated.*

Next time the user logs on, the new password is required. If the user attempts to start another session with the current session running, the new password is required.

To change your own password:

Note: ServiceCenter contains a form to change your own password.

- 1 Make sure that the command line is visible by selecting **Command Line** from the **View** menu.
- 2 Type **password** on the command line.
- 3 Click the **Start Command** arrow or press **Enter**.



Note: Some user menus and forms, such as *menu.gui.user*, contain a button to access the password form.

A password form is displayed with your **User Name** entered.

Figure 3-18: Change password form

- 4 Enter your current password in the **Old password** field.

Note: The passwords you enter are not displayed; ServiceCenter masks the characters using asterisks (*).
- 5 Enter your new password in the **New password** field.
- 6 Enter your new password again in the **Confirm new password** field, and then click **OK**.

The new password takes effect the next time you log on. Even if you start another session using your login name with the current session still open, you still need to use the new password.

Restricting Logins

The `system.quiesce` application allows a system administrator to limit logins to a ServiceCenter system when trying to perform system maintenance. System Quiesce enables the system to have the rest period it needs, so that the following procedures can be performed without any interference during the system maintenance.

- Upgrading from one version of ServiceCenter to another
- Converting the P4 database to an RDBMS
- Performing system maintenance, such as creating or editing Format Control records, links, or categories

Levels of Restriction

Depending upon the maintenance being performed on the ServiceCenter system, there are three levels of login restriction that the system administrator can enforce. They are:

- **Level 0**

All logins accepted

- **Level 1**

Only system administrators permitted to log on. When a user without system administrator rights attempts to log on to a system at Level 1, the login is rejected, and a message displays, stating: *System quiesced, you cannot login at this time.*

- **Level 2**

No further logins accepted. When any user attempts to log on to a system at Level 2, the login is rejected, and a message displays, stating: *System quiesced, logins restricted at this time.*

General Effects

When a quiesced system's restriction levels are set and the system begins to enforce restricting users from logging on to the system, according to users' login levels, currently logged in users are not forced off the system. However, new users are prevented from logging on.

When the system administrator places the system at Level 2 and logs off, the server must be stopped and started to re-enable the normal login functions.

Applying System Quiesce to Restrict Logins

To quiesce a system:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Administration**.

The Administration menu is displayed (Figure 3-19 on page 193).

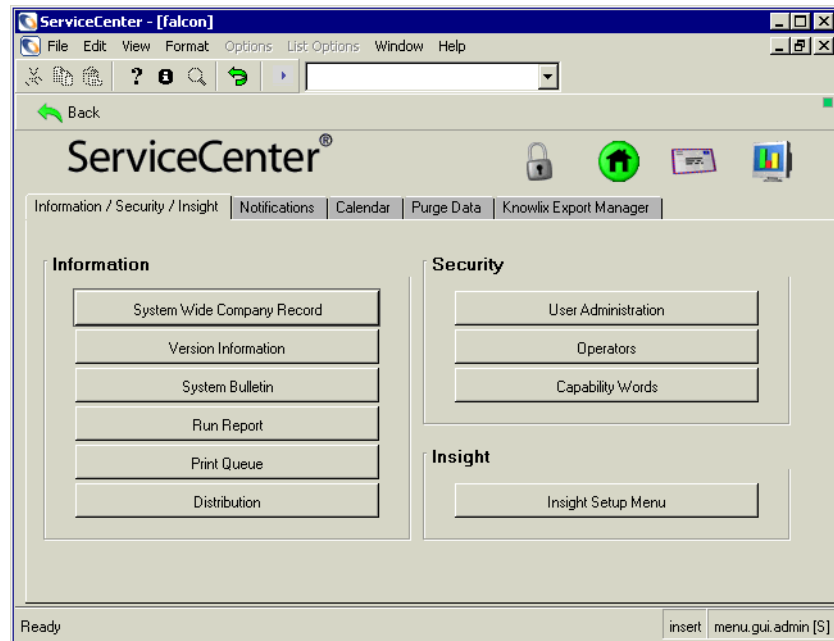


Figure 3-19: Administrator's menu



3 Click Connection Restrictions.

The Access Level control console is displayed (Figure 3-20 on page 194).

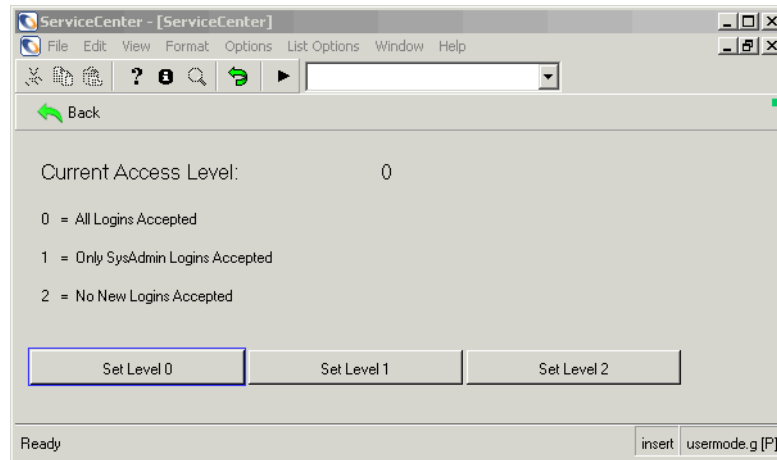


Figure 3-20: Access Level console

4 Click the button for the access level you want to apply to your system:

- Set Level 0
- Set Level 1
- Set Level 2

The current level is displayed on the console.

5 Click Back to return to the Administrator's menu.

Single Sign-On

Single sign-on is a feature that allows users who are connected to the network to bypass the ServiceCenter login screen and automatically get into the ServiceCenter system. In order for single sign-on to work, the system administrator adds the **trustedsignon** parameter to the server side of the **sc.ini** file and creates operator records for each NT Userid that will be utilizing the single sign-on feature. When the system administrator completes the **parameter** file set-up and all necessary operator records are created, single sign-on ability is available to the client when it first connects to the server. When the client receives notification from the server that single sign-ons are allowed, the NT Userid is used as the ServiceCenter login and no password is required. The login screen is bypassed, unless the NT Userid is not defined in an operator record.

- ▶ To set up an operator record for a user's NT Userid, refer to *Adding Users* on page 146.

To add the single sign-on parameter to the sc.ini file:

- 1 Go to the ServiceCenter Programs file directory.
- 2 Edit the **sc.ini** file with any text editor.

For example, on Windows NT, you can go to **Start>Programs>ServiceCenter>Init File** to open the **sc.ini** file with Notepad. Add the following parameter to the **sc.ini** file:

```
trustedsignon
```

- 3 From the **File** menu, choose **Save**, and then exit Notepad.
- 4 Stop and restart ServiceCenter, so that the system changes will be recognized.

Note: Once the operator records are created for the NT Userids that will be utilizing the single sign-on ability, users can connect to the network and bypass the ServiceCenter login screen.

System Wide Company Record

Each ServiceCenter system contains a System Wide Company Record. This record contains information used by the ServiceCenter applications accessing this server.

The System Wide Company Record allows the applications to:

- Display report headers (when using the *master* header).
- Adhere to logical file size limits.
- Compose password and set standards and lifetime limits.
- Create a unique record when unloading/loading *msgclass* records.
- Calculate the number of days ServiceCenter passwords are valid.
- Provide a `syslog` audit trail.
- Set the default time zone, date, and month formats for the system.
- Set default print options for Incident and Change Managements.
- Set the length of time for queries.
- Print a ServiceCenter banner page with printed reports.
- Calculate the month that the fiscal year ends.
- Set ServiceCenter to run in multi-company mode.

Accessing the System Wide Company Record

The System Wide Company Record can be accessed from the Administrator's menu:

- 1 In the system administrator's home menu, click the Utilities tab (Figure 3-21 on page 197).
- 2 Click **Administration**.

- 3 In the Administration menu, click **System Wide Company Record**.
The System Wide Company Record form (Figure 3-21 on page 197) is displayed. The system is shipped with the Peregrine company record information by default.

Figure 3-21: System Wide Company Record

- 4 Modify this information to create your own System Wide Company Record.

System Wide Company Record Fields

Header

Field	Description
Company Name/Address/City/State/Zip	Your company's name and address, including city, the state two-character abbreviation, and zip code.

Logon Info Tab

The Logon Info tab (Figure 3-21 on page 197) sets limits on the number of logins and login attempts that a user can make and activates user lockout and account expiration.

Field	Description
Max Logins per User	<p>Maximum number of concurrent logins allowed per user ID. If this field is left blank, a user can run an unlimited number of concurrent sessions.</p> <p>Note: The maximum number of logins in the operator record override this setting.</p> <p>Note: The Unlimited Sessions check box in the operator record (page 154) overrides the value in this field. If the Unlimited Sessions check box is not selected, the system uses the value in the No. per User field.</p>
Attempts Per Login Session	<p>Number of incorrect logon attempts a user is allowed before being locked-out from logging-on in the current logon window. (The user would have to start the client again to get a new login window.) If this field is left blank, users are given 5 login attempts.</p>
Operator Template	<p>Default operator template for LDAP users.</p>

User Lockout

Because all users must have a password defined in their operator record to log onto ServiceCenter, the **Use User Lockout** structure sets the lockout times and inactive interval. See the structure fields described below.

Note: If **Prevent System Locking on this user?** is checked (*true*) in the Security tab of the operator record, this will prevent manual or system locking of that user's access.

Field	Description
Use User Lockout	Determines whether or not user lockout will be used. If this box is checked (evaluates to <i>true</i>), the user lockout feature will be used and the other fields must be set for lockout period and inactive interval time.
Attempts Until Lockout	<p>Choose one of the lockout reset values below.</p> <ul style="list-style-type: none"> ■ Complete Lockout—completely locks user out of the system until the system administrator resets the lock ■ Lock out for time Period—locks user out of the system for the specified period of time in days, hours, minutes, and seconds DD_:HH:MM:SS For example: 60 days = 60 00:00:00 <p>Note: If you try to do an F9 to fill the field, it will be the wrong type of date structure and will cause unexpected behavior. The DD:HH:MM format is correct.</p>

Account Expiration

Field	Description
Inactivation Interval	Interval of time in days, hours, and minutes (DD:HH:MM) after which user will be considered inactive and locked out of the system. The system administrator will have to reset the user password to eliminate the inactive status.
Expiration Interval	Interval of time in days, hours, and minutes (DD:HH:MM) after which an inactive password will be considered expired.

Note: If you try to do an F9 to fill the field, it will be the wrong type of date structure and will cause unexpected behavior. The DD:HH:MM format is correct.

Note: If the *Inactivation Interval* time period has been exceeded but the *Expiration Interval* has not been reached, the user password can be reset.

According to best practices and processes, if the *Inactivation Interval* time period has been exceeded and the *Expiration Interval* has been reached, the user password cannot be reset and a new operator record must be created.

For example: If the *Inactivation Interval* is set at 60 days and the *Expiration Interval* is set at 90 days, the system administrator can reset the lock on an inactive user password for up to 89 days.

If the *Inactivation Interval* has been 90 days or more and the *Expiration Interval* has been reached, then a user's access is considered expired and cannot be reset. A new operator record must be created.

Active Integrations Tab

The Active Integrations tab (Figure 3-22 on page 200) allows you to enable or disable integrations, controlling which integration options are available to users.



Figure 3-22: System Wide Company Record—Active Integrations tab

Available integrations include:

- Knowlix
- ServiceWare
- Get-Answers
- Remote Control
- IND

Selecting (or enabling) an integration causes options for that integration to appear on the user Options menu. When you enable Get-Answers and/or IND integrations, a field appears beside the integration name for you to type the name of the server where the integration is installed. Out-of-box, all integrations are disabled.

Menu Information Tab

The Menu Information tab (Figure 3-23 on page 201) allows you to set the display value for all menu screens, ServiceCenter printed reports banner pages, and text report headers (when using the master header).

Figure 3-23: Menu Information Tab

Field	Description
Menu Title	(Used for text mode only.) Value displayed at the top of all menu screens and on the master header for text reports, as shown in the following example. ServiceCenter—RELEASE ____ Date: category listing 06/21/02 16:52 Page: 1 Operator: FALCON Selection: all records Sequence:
Menu Prompt	on menus, replaces the <i>prompt</i> on the screen. It can be used to tag different development systems, and so on.
Banner ID	ID printed on banner pages when the banner page option is enabled in the print Configuration File.

Password Standards Tab

The Password Standards tab (Figure 3-24 on page 202) sets requirements for user passwords and has the option to store history on passwords.



Figure 3-24: System Wide Company Record—Password Standards tab

Password Reset

Choose one of the password reset values below. The following values are also options in the operator record or in Central Administration Utilities, View User. When the password reset feature is used, the user is forced to change his or her password at the next login.

Password Reset Value	Description
Prevent Pwd Resets	Prevent password from being reset with the password reset pull-down option.
Reset to User Name	Reset password to user's login name.
Prompt for Value	Prompt user to enter a password. This will prompt whomever is resetting the operator's password to enter a new password. If this is used, the password should also be expired (set in the operator record), forcing the user to update his/her password on the next login.
Reset to Value	Reset password to the value indicated in the next space. For example, reset the password to your company name.

Password History

Field	Description
Keep Password History	<p>If this field evaluates to <i>true</i> (<i>checked</i>), the user's password history is retained.</p> <ul style="list-style-type: none"> ■ Prevent Use of Last _____ Passwords—automatically prevents user from using the last specified number of passwords from being used as the new password. In this example, the last 10 passwords may not be used to create a new password. <p>Note: There is an exception that allows the last password to be reused. If the user's password has been reset, then the reset password (such as, user name or company name) can be reused.</p> <ul style="list-style-type: none"> ■ Prevent All Password Reuse—prevent all previous passwords from being reused when new passwords are set. <p>Note: There is an exception that allows previous passwords to be reused. If the user's password has been reset using a standard name (such as, user name or company name), then the reset password can be reused.</p>

Password Composition Tab

The Password Composition tab (Figure 3-25 on page 204) sets the rules, such as minimum and maximum password length, for how passwords can be composed.

Important: Users should not have conflicting password composition requirements. See the fields in Figure 3-25 and their descriptions that follow.

The screenshot shows the 'Password Composition' tab with the following settings:

- Min Password Length: 0
- Max Password Length: 20
- Always Require a Password:
- Allow Alpha Characters:
 - Require Alpha Chars: Min. Required:
 - Require Mixed Case: Min. Required:
- Allow Numeric Characters:
 - Require Non-Alpha Chars: Min. Required:
- Allow Symbolic Characters:
 - Prohibit Space Character:

Figure 3-25: System Wide Company Record—Password Composition tab

Field	Description
Min Password Length	Minimum number of characters to be used when creating a password. Ideally, the minimum should be at least six characters.
Max Password Length	Maximum number of characters to be used when creating a new password. The OS/390 platform requires a maximum of eight characters.
Allow Alpha Characters	Check here if alphabetical characters can be used when creating a password. <ul style="list-style-type: none"> ■ Require Alpha Chars—check here if alpha characters should be required. ■ Min. Required—automatically require a specified minimum number of alpha characters to be used when creating a password. ■ Require Mixed Case—check here if the password should require upper and lower case characters.
Allow Numeric Characters	Check here if numeric characters can be used when creating a password. <ul style="list-style-type: none"> ■ Require Non-Alpha Characters—check here if non-alpha characters should be required. ■ Min Required—automatically require a specified minimum number of non-alpha characters to be used when creating a password.

Field	Description
Allow Symbolic Characters	<p>Check here if symbolic characters, such as a dash (-), can be used when creating a password. OS/390 users can only use three symbolic characters.</p> <hr/> <p>Warning: If the symbolic characters pound (#), equal sign (=), tilde (~), greater than (>), or less than (<) are used at the beginning of a password, they will not be acknowledged by the system.</p> <hr/> <p>■ Prohibit Space Character—check here if you want to prohibit the space bar character (blank space character) from being used when a password is being created.</p> <p>Note: You may want to consider prohibiting the use of the space character if it causes problems for users creating new passwords.</p>
Always require a password	<p>Determines whether or not passwords are required. If this box is checked (evaluates to <i>true</i>) all users must have a password defined in their operator records to log on to ServiceCenter.</p> <p>Note: ServiceCenter does not require a password if it is not in the operator record. If this field is checked and the user has a null (blank) password, the user can continue to log on until forced to change the password. As long as the password is valid, the user can keep using it.</p> <p>If maximum lifetime is not enforced, the user can have a null password forever.</p>

Password Life Time Tab

The Password Life Time tab (Figure 3-26 on page 206) controls minimum and maximum lifetime limits according to time period or number of logins.

Note: It is best practice to keep either the same time periods or the same number of logins for both Password Max life time and Password Min life time.

The screenshot shows the 'Password Life Time' tab in a software interface. The tab is selected, and the 'Notify by Email on Password Change' checkbox is checked. The 'Password Max Lifetime' section has 'No Max Lifetime' selected. The 'Password Min Lifetime' section has 'No Min Lifetime' selected.

Figure 3-26: System Wide Company Record—Password Life Time tab

Field	Description
Notify by email on pwd change	Notify user by email when the password has been changed by another user.

Password Max Life Time

Select one of the following to set the maximum amount of time a password should be used.

Field	Description
No Max Life Time	No maximum lifetime should be set for a password. This setting should be the same as No Min Life Time .
Use Time Period	Use a time period to determine the maximum lifetime of a password. It is best practice to keep the same time period for Password Min life time. Click the button and the field will display.
Use Number of Logins	Use number of logins to determine the maximum lifetime of a password. Click the button and the field will display.

Password Min Life Time

Select one of the following to set the minimum amount of time a password should be used.

Field	Description
No Min Life Time	No minimum lifetime should be set for a password. This setting should be the same as No Max Life Time .
Use Time Period	If checked (<i>true</i>), a field labeled Min Pwd Lifetime displays to allow you to define the time period. It is best practice to keep the same time period for Password Max life time. Click the button and the field will display.
Use Number of Logins	If checked (<i>true</i>), a field labeled Min before change displays to allow you to define the value. Click the button and the field will display.

Date Information Tab

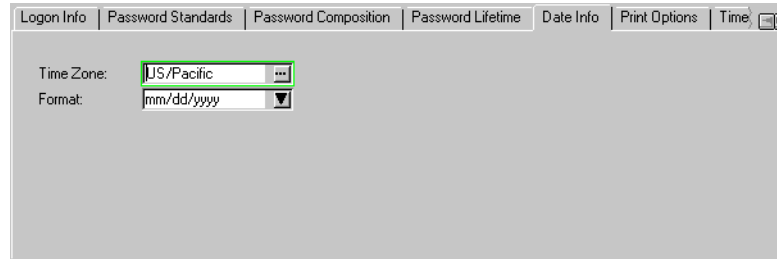


Figure 3-27: System Wide Company Record—Date Info tab

Field	Description
Time Zone	<p>Establishes a default, system-wide time zone setting. Time zone records are kept in the Time Zone Definition File (tzfile). This setting applies to all system operators, unless the setting is overridden within their operator record. For more information, see <i>Creating an Operator Record</i> on page 147.</p> <p>Note: ServiceCenter is shipped with a default setting of US/Pacific.</p>
Format	<p>Format in which dates are entered and displayed throughout the ServiceCenter system. This setting applies to all system operators, unless the setting is overridden within their operator record. For more information, see <i>Creating an Operator Record</i> on page 147.</p> <p>The available formats are:</p> <ul style="list-style-type: none"> ■ mm/dd/yy—standard U.S. format. ■ dd/mm/yy—European format. ■ yy/mm/dd—optional format. ■ mm/dd/yyyy—standard U.S. format. ■ dd/mm/yyyy—European format. ■ yyyy/mm/dd—optional format.

To change the Time Zone setting:

- 1 Clear the field.
- 2 Click the Fill button.
A QBE list of time zones is displayed.

- 3 Select a time zone record from the list by double-clicking the button for the time zone you want to use.

The time zone is placed in the field.

Only a system administrator can modify time zone records. For more information on Time Zone functions, see *Time Zone Function and Date Formats, Chapter 6*.

Note: ServiceCenter time zone records can specify the cut over dates between Daylight Savings Time and Standard Time.

Print Options Tab

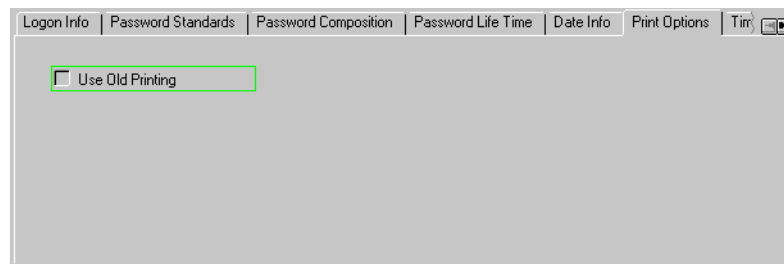


Figure 3-28: System Wide Company Record—Print Options tab

Field	Description
Use Old Printing	Selects old print routines. Beginning with the ServiceCenter A9802 release, new print routines were added to ServiceCenter.

Time Limits Tab

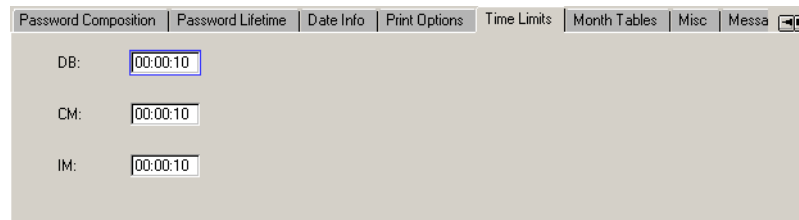


Figure 3-29: System Wide Company Record—Time Limits tab

Field	Description
DB	System default time limit for partially keyed or non-keyed queries in Database Manager. The format is hh:mm:ss . ServiceCenter is shipped with a default of ten seconds, that is, 00:00:10 .
CM	System default time limit for partially keyed or non-keyed queries in Change Management. The format is hh:mm:ss . ServiceCenter is shipped with a default of ten seconds, that is, 00:00:10 .
IM	System default time limit for partially keyed or non-keyed queries in Incident Management. The format is hh:mm:ss . ServiceCenter is shipped with a default of ten seconds, that is, 00:00:10 .

Note: It is only possible if the Operator record for the user has the capability word allowing non-partially keyed query searches.

Month Tables Tab

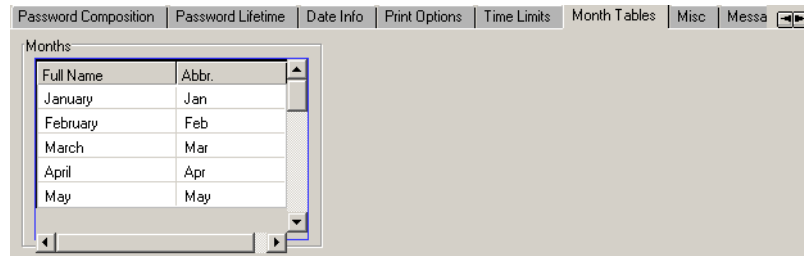


Figure 3-30: System Wide Company Record—Month Tables tab

Used to select long and short versions of the 12 months.

Miscellaneous Tab

Figure 3-31: System Wide Company Record—Misc tab

Field	Description
Msg Queue Size	Default message queue size for each operator. The maximum is 500. This setting applies to all system operators, unless the setting is overridden within their operator record.
Fiscal Year	<i>This field is no longer used.</i>
Language Code	Controls what language the operator uses inside ServiceCenter, unless this is overridden by the Operator record's Language value. See Creating an Operator Record on page 147 for details.
Basis Currency	Select the base currency the company uses for transactions from the drop-down list, unless this is overridden by the Operator record. See Creating an Operator Record on page 147 for details.
Max Attachment Size	Defines the maximum size of a file that all ServiceCenter users can insert into an OLE container. OLE containers are historical only. With ServiceCenter 4.0 or later, all attachments are external file attachments. For more information on OLE containers, see File Attachments and OLE Containers on page 69.
Case Mode	Indicates the setting of the system case mode. The system may be set to Case-Sensitive or Case-Insensitive. For more information on case sensitivity, refer to the <i>P4 Filesystem documentation in the ServiceCenter Database Management and Administration Guide</i> .
System Start	automatically filled in each time you start the server.

Field	Description
Msg. Queue	If selected, this check box tells the system to use the Size field to set the message queue size; otherwise, the system default is used. This setting applies to all system operators, unless the setting is overridden within their Operator Record.
Syslog Audit	Logical field controlling the logging function. If this check box is selected, a record is entered into the syslog file containing the time and user ID each time the user logs on or off. Otherwise, a record is not entered into the syslog file.
Disable Work Management	Checking this box (<i>true</i>) disables the Work Management module. This may help with performance on some systems. The option will also remove the Work Management icon from the Home menu.
Run in Multi-Company Mode	Checking this box sets the \$G.multi global variable to <i>true</i> so that the system runs in multi-company mode. For details about multi-company mode, see Using Multi-Company Mode on page 120.
Use Learning for SC Knowledge	Turns on the learning for SC Knowledge by adding a learning record (adrelation record) when using the Use Resolution option after finding a valid solution.
Allow Editing of Learning Record	Allows this user to have the ability to edit the learning record (adrelation record), if learning is used. If you add words to the original search string, it will learn on those words as well.

Message Processors Tab

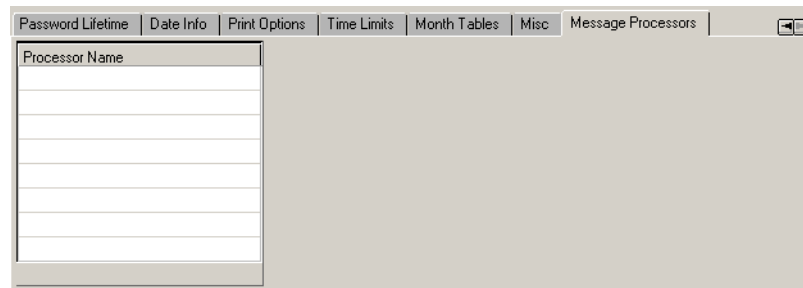


Figure 3-32: Message Processors Tab

Field	Description
Processor Name	<p>Name of the processor(s) you want to handle standard message traffic. Messages are rotated among all processors that you specify, freeing the problem processor to handle problem alerts.</p> <p>If you specify no processors, the system defaults to using the problem processor to handle all message traffic.</p> <p>Important: It is the administrator's responsibility to ensure that the correct background schedulers are started and maintained.</p>

Options Menu—System Wide Company Record

The **Options** menu provides shortcuts to other ServiceCenter applications, and access to Incident Management, Search, and Inbox functions.

Option	Description
Validity Lookup	Checks the selected field against the ServiceCenter validity tables.
Set Case Insensitive	To enable case insensitive searching. See the <i>ServiceCenter Database Management and Administration Guide</i> to learn more about changing the case mode.
Get-Answers Configuration Records	Provides a list of all configuration records needed to set up how data is retrieved from and how new knowledge is authored in Get-Answers.
Knowlix Configuration Records	Provides a list of all configuration records needed to set up how new knowledge is authored in Knowlix.
Expand Array	Displays a separate window with an expanded version of the highlighted array, allowing you to enter or remove values in the array.
Set ParmS	Reinitialize the internal time zone value in ServiceCenter. For more information on Time Zone functions and setting the default time zone and date formats using the Set ParmS option, see <i>Set the Default Time Zone and Date Format</i> on page 272.

List Options Menu—System Wide Company Record

The List Options menu is available when a QBE Record list is displayed.

List Option	Description
Mass Unload	Allows you to unload all the records appearing in a record or QBE list to an external file.
Count	Tallies the number of records in the list.
Refresh	Updates the QBE list with current system information.
Modify Columns	Allows you to change the column headings in the QBE record list.
Export to Excel	Exports the current Incident List to a Microsoft® Excel spreadsheet. Excel is opened automatically and the list is placed in the spreadsheet. Basically, you can export information to any product that has DDE (Dynamic Data Exchange) support. This DDE function requires Excel 95 or later. Note: This option is available only on Windows clients.
Export to Text File	Exports the current Incident List to a text file. This option is not part of the DDE support and can be run from clients other than those operating in Windows.

User Administration

General Tab

The user's capabilities within a given application (such as, Service Management and Incident Management) are defined by a user's Application Profile record.

In the General tab of the operator record (see Figure 3-3 on page 148), you can identify and update user Application Profile information for each ServiceCenter application, including Service Management, Incident Management, Root Cause Analysis, Inventory Management, Change Management, and Request Management.

See additional options in the Options drop-down lists that are available in the top menu bar. See for descriptions of each available option.

Checking the Status of a User's Profiles

An overview of a user's profiles is displayed in the General tab of the Operator record. If a *User Role* is not selected as the basis for the application profiles, you will see a "DEFAULT" profile type in the profile field, which signifies that a default profile is being used. However, based on the *User Role* selected, there will be user profile assignments for each ServiceCenter application. If you would like to select a different profile or create a unique profile, either select a new profile type from the drop-down list, create unique profile settings for this user, or add the operator as a member of an existing profile.

Profiles and profile types for Change Profiles and Request Profiles are logged in their respective status boxes. As profiles are added or updated, the status boxes reflect current data for each profile listed (see Figure 3-2 on page 145).

■ Change Management profiles

Change Management profiles are created to control access to the Change Management application. The access privileges for these profiles are as follows:

- Changes
- Tasks
- All

If the pre-set **DEFAULT** access privileges remain unchanged, the user has limited access to Change Management, which will allow access to information that is generally available to all users. No update capabilities are available.

If one of the specific profile access areas, such as **Changes** or **Tasks**, is created *along with* the **All** profile access, the system will choose the specific area (**Changes** or **Tasks**) over **All**, granting access to changes or tasks only. However, if all three profile access areas are created (**Changes**, **Tasks**, and **All**), the system will grant access privileges according to the **All** access privileges category. Use the Central Administration Utilities overview at a glance to make sure you have all access privileges set properly for each user.

- Request Management profiles

Request Management profiles are created to control access to the Request Management application. The access privileges for these profiles are as follows:

- Quotes
- Orders
- Line Items
- All

If the pre-set **DEFAULT** access privileges remain unchanged, the user has limited access to Request Management, which will allow access to information that is generally available to all users. No other capabilities, such as ordering from the catalog, are available.

If one of the specific profile access categories, such as **Quotes**, **Orders**, or **Line Items**, is created *along with* the **All** profile access category, the system will choose the specific category (**Quotes**, **Orders**, or **Line Items**) over **All**. The user will have access to the specific category assigned (quotes, orders, or line items) over all access rights. However, if all profile access categories are created, including **All**, the system will grant access privileges according to the **All** access privileges category. Use the Central Administration Utilities overview at a glance to make sure you have access privileges set properly for each user.

Adding a User Profile

Add a user profile in the General tab of the Operator record. See *Viewing and Editing User Data* on page 144 for information on how to begin viewing and editing user data. Also see Figure 3-2 on page 145.

Editing a User Profile

Edit a user profile in the General tab of the Operator record. See *Viewing and Editing User Data* on page 144 for information on how to begin viewing and editing user data.

To edit a user's profile, such as the Service Management profile, select the application profile you want to view, then click the RIGHT ARROW. With the exception of two applications, you will be brought to the profile form to make changes. If you need to add a profile, click **Add New Profile** to bring up the Add dialog box. See the *ServiceCenter Application Administration Guide* to learn about the details of the profile form.

When you begin to edit a user's profile for the Change Management and Request Management applications, you will be prompted with the profile dialog box.

Warning: If you make any changes to a profile that includes a member list, all members on the list will be affected.

Profile with Multiple Members

When you elect to edit a profile with multiple members, the profile's member list will display. You can add, edit, or delete users from the member list.

Warning: If you wish to remove a user from a profile's member list, do not delete the profile nor the list of members. Instead, remove the user(s) from the member list, using the *Edit Member List* option.

Removing Users and Related Profile Information from ServiceCenter

You can delete a user from the system and purge all related user profile information, using *View User Data* utility.

To remove a user and all related profile information:

- 1 From the ServiceCenter home menu, select the Utilities tab and click **Administration**.
- 2 On the Information/Security/Insight tab, in the Security structure, click **User Administration**.
- 3 Click **View User Data**.
- 4 When prompted to select an existing user, enter the name of the user to be removed from the system, or use the drop-down arrow to select the user from the list.

The user's information will be displayed, as in Figure 3-2 on page 145.

- 5 Select **Options > Completely Remove User** from the top menu bar.
- 6 You will be prompted to confirm that you really want to delete the user and his/her related contact and profile information.
 - Click **Yes** to continue the delete process.
 - Click **No** to return to the user information display screen.

Warning: When you click *Yes* to completely remove a user and all related information, you cannot undo the deletion. All the user's information will be permanently deleted from ServiceCenter.

User's Assignment & Message Groups Tab

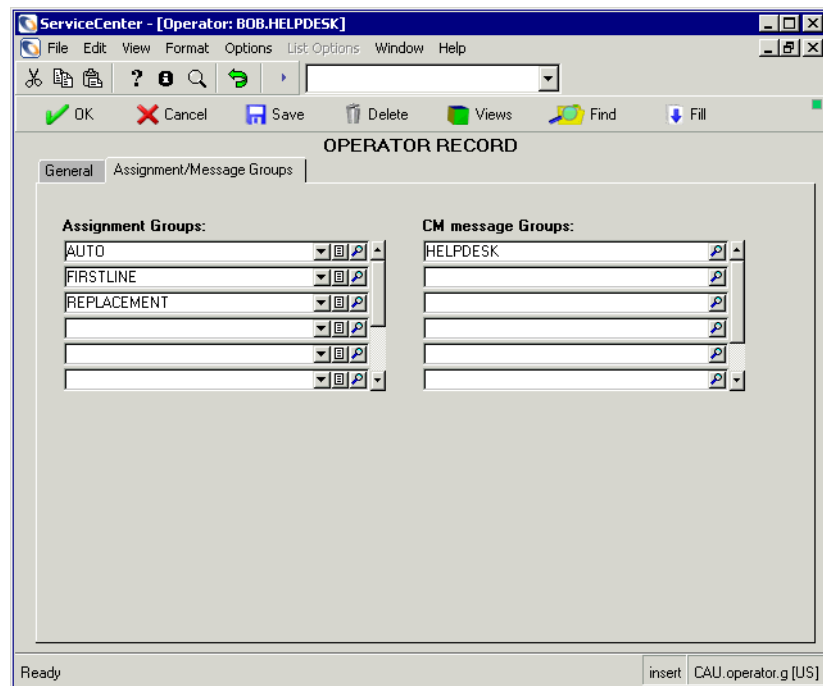


Figure 3-33: User's Assignment and Message Groups tab

Edit Incident Management assignment groups and Change Management message groups, using the menu option buttons.

Editing Incident Management Assignment Groups

Edit Incident Management assignment groups in the **User's Assignment & Message Groups** tab in the **View User Data** menu.

Click **Edit Asgn Groups** to edit an assignment group. When the *assignment.util.g* form is displayed, select the group you want to edit. See the *ServiceCenter Application Administration Guide* to learn more about editing and assigning assignment groups.

To learn more about viewing and editing a user's data within Central Administration Utilities, see *Viewing and Editing User Data* on page 144.

Editing Change Management Message Groups

Edit Change Management message groups in the **User's Assignment & Message Groups** tab in the **View User Data** menu.

Click **Edit Msg Groups** to edit a message group. When the *cm3groups.g* form is displayed, select the group you want to edit. You will be able to make changes, such as adding and deleting users to the approvers and reviewer lists. See the *ServiceCenter Application Administration Guide* to learn more about editing message groups.

To learn more about viewing and editing a user's data within Central Administration Utilities, see *Viewing and Editing User Data* on page 144.

User Quick Add Utility

- 1 In the **Central Administration Utilities** main menu, click **User Quick Add Utility**.
- 2 When prompted, enter a new user's name in the dialog box.
Decide whether you want to clone an existing user, or create a brand new user. See *Adding Users* on page 146 to learn more about adding users and capability words, and changing passwords.
- 3 When you're finished entering new user information, click **Add**.
- 4 When prompted, add the contact information.
- 5 Click **Add**.

Incident Tab

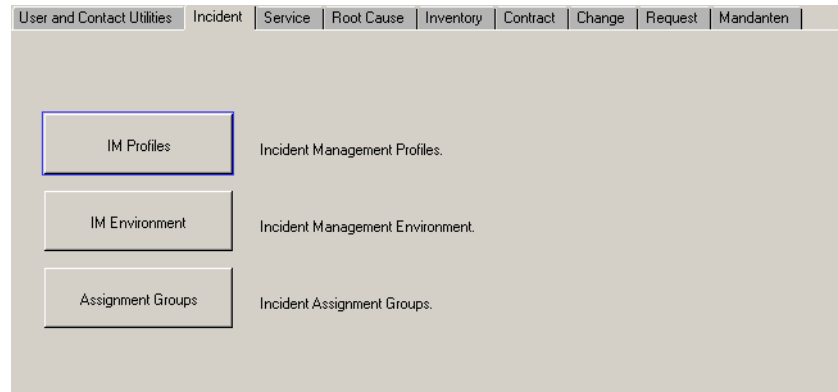


Figure 3-34: Central Administration Utilities—Incident tab

Button	Description
Incident Management Profiles	Define a profile within Incident Management for each user.
Incident Management Environment	Specify general application functional parameters within Incident Management, such as allow access with or without operator record and whether or not to allow inefficient queries. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.
Incident Assignment Groups	Create incident work assignment groups, so that incident tickets can be assigned to the appropriate departments and people for resolution.

Service Tab



Figure 3-35: Central Administration Utilities—Service tab

Button	Description
Service Management Profiles	Define a profile within Service Management for each user.
Service Management Environment	Specify general application functional parameters within Service Management to determine the conventions to be observed when calls are created, such as whether or not to notify certain persons when a call is closed or whether a call should be closed before or after all related records are closed. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.

Root Cause Tab

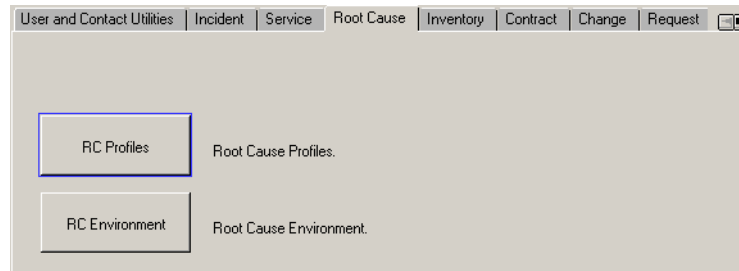


Figure 3-36: Central Administration Utilities—Root Cause tab

Button	Description
Root Cause Profiles	Define a profile within Root Cause Analysis for each user.
Root Cause Environment	Specify general application functional parameters within Root Cause Analysis to observe conventions to be used when determining the root cause for particular incidents or related incidents in Incident Management and Change Management. For example, determine and set up manage, search, and list formats, so that root causes and their errors can be identified and resolved. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.

Inventory Tab

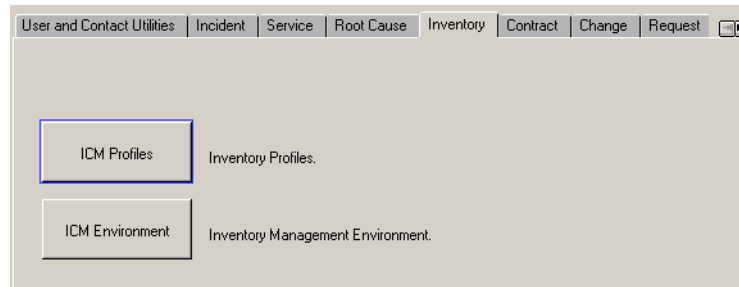


Figure 3-37: Central Administration Utilities—Inventory tab

Button	Description
Inventory Profiles	Define a profile within Inventory and Configuration Management for each user.
Inventory Management Environment	Specify general application functional parameters within Inventory and Configuration Management to determine the conventions to be observed when keeping track of hardware and software in your network. For example, determine and set up if there will be device type restrictions or if passwords will be required. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.

Contract Tab

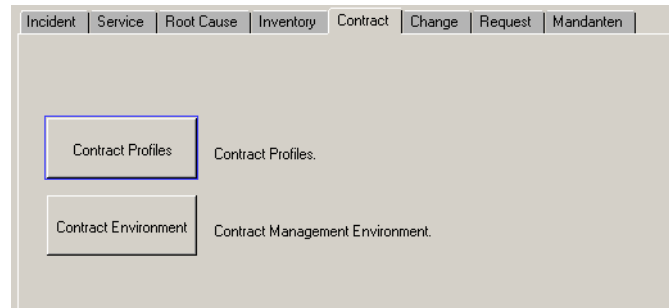


Figure 3-38: Central Administration Utilities—Contract tab

Button	Description
Contract Profiles	Define profiles within Contract Management for each user.
Contract Management Environment	Specify general application functional parameters within Contract Management to determine the conventions to be observed when setting up contracts, making payments, allocating assets, and applying contract terms and conditions. For further information about the Environment record, see the <i>Application Administration Guide</i> .

Change Tab

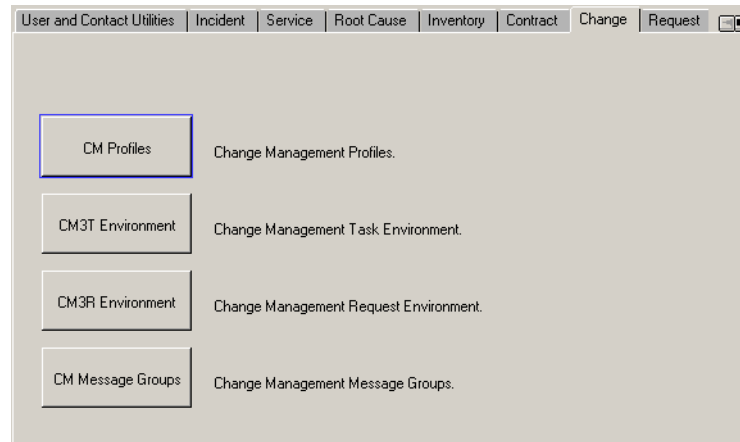


Figure 3-39: Central Administration Utilities—Change tab

Button	Description
Change Management Profiles	Define profiles within Change Management for each user for: <ul style="list-style-type: none"> ■ Changes ■ Tasks ■ All
Change Management Task Environment	Specify general application functional parameters within Change Management to determine the conventions to be observed when requesting, listing, and tracking changes at a facility. For example, set alerts, approval options, and query options. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.

Button	Description
Change Management Request Environment	Specify general application functional parameters within Change Management to determine the conventions to be observed when keeping track of changes at a facility. For example, set the change manage formats and set the category restrictions. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.
Change Management Message Groups	Create Change Management message groups, so that change requests can be reported to the appropriate groups or persons.

Request Tab

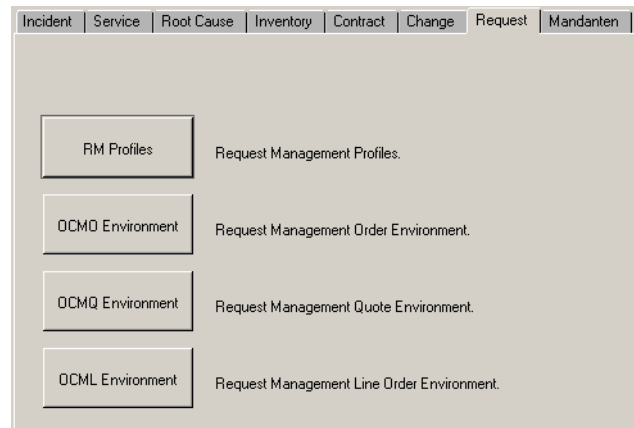


Figure 3-40: Central Administration Utilities—Request tab

Button	Description
Request Management Profiles	Define profiles within Request Management for each user for: <ul style="list-style-type: none"> ■ Quotes ■ Orders ■ Line Items ■ All
Request Management Order Environment	Specify general application functional parameters within the Request Management order environment to determine the conventions to be observed when ordering items from the catalog. For example, set up a unique control numbering scheme to keep track of your orders. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.
Request Management Quote Environment	Specify general application functional parameters within the Request Management Quote environment to determine the conventions to be observed when receiving quotes for items ordered. For example, set whether or not an item should be marked as “in stock” when a line item has been completely received. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.
Request Management Line Item Environment	Specify general application functional parameters within the Request Management Line Order environment to determine the conventions to be observed when requesting items from the catalog. For example, set whether or not access is allowed without an operator profile or if events should be scheduled. See the <i>ServiceCenter Application Administration Guide</i> to learn more about the <i>Environment</i> record.

Mandanten Tab



Figure 3-41: Central Administration Utilities—Mandanten tab

Button	Description
Mandanten Security Groups	Define companies to be included and excluded for each Mandanten Security group.
Mandanten Field Restrictions	Define fields to be protected and linked with their source fields. Also define which fields should be excluded.
Mandanten Restricting Queries	Format Mandanten values in the <i>scaccess</i> file to create restricting queries. For more information about the Mandanten feature, see <i>Mandanten Database Protection, Chapter 8</i> .

4 Print Routines and Printer Setup

CHAPTER

Overview

ServiceCenter introduced enhanced print routines as the default beginning with release A9802. The `us.print` routines are used throughout the primary applications (except for Inventory Management). These routines support both client and server printing.

In this chapter you will learn about the following tasks:

- How print routines work in ServiceCenter's applications if you are printing from the database.
- Deciding which print routines to use.
- Selecting pre-A9802 routines (Inventory Management uses).
- Enabling the pre-A9802 print routines with Format Control.

Note: If you are printing from the database, the enhanced print routines are always used.

Advantages of the Enhanced Print Routines

The enhanced routines feature the following improvements over previous print routines:

- They are faster and more robust.
- Array fields are automatically expanded so that every line of an array is printed. This means that you can use just one print to get all the information in the description field of an incident record.
- Records spanning multiple pages will be printed with page numbers.

Deciding Which Print Routines to Use

ServiceCenter allows you to select between the enhanced routines and the pre-A9802 routines depending upon your situation. The following general guidelines will help you decide which print routines to use:

- If you are implementing ServiceCenter for the first time with release 3 or later, use the enhanced print routines that are installed in your system as the default. The only exception is that Inventory Management does not use the new print routines.
- If you have upgraded to release 3 or a later release from another release of ServiceCenter that uses the previous print routines (pre-A9802 releases), you may prefer to use those routines until your upgrade is established. This will lessen the work involved during the upgrade process. Specifically, it will allow you to print immediately without redefining print formats within the principal applications. Eventually, you can switch to the enhanced routines to take advantage of the new print features. To enable the previous print routines, refer to *Selecting Pre-A9802 Print Routines* on page 233.

How Print Routines Work in ServiceCenter

General

The formatting values of *page width* and *lines per page* are determined in the following fashion:

- Client-side printing—based on values found in the Notification tab of the operator record (see *Notification Tab (Includes Contact Information)* on page 161).
- Server-side printing—based on the values in the printer configuration record selected for the server's system printer (see *Creating a New Printer Record In the Configuration File* on page 241).

The default formatting values for client and server printing are:

- Page width—80
- Lines per page—60

Database

If you are printing from the database, the enhanced print routines are always used. The rules for selecting the form to print are the same as for the pre-A9802 routines (see *Selecting Pre-A9802 Print Routines* on page 233).

Incident Management

Incident Management uses the enhanced printing routines unless the old print routines are selected using one of the methods discussed in *Selecting Pre-A9802 Print Routines* on page 233. When the enhanced printing routines are used, the status of the incident ticket determines what form will be printed.

In the Formats tab of a problem category record (`apm.category.g`), the Print Formats fields are filled by default with the first line of the array used in pre-A9802 print routines.

If the form to be used is not specified in the associated category record, the print routines will use the form specified in the **Default** field of the Print Formats structure in the category record. If this is also blank, the print routines will use the current form of the ticket.

A print confirmation dialog gives the user the following printing choices:

- print the list only
- print the problem records
- print all pages of the problem records.

Service Management

Service Management uses the enhanced printing routines. When using the enhanced routines, the **Print Format** field in the SM Security Profile record (`cc.profile.g`) will determine what form will be printed. If this is null, the system uses the form named in the **Edit Format** field. Finally, if this is also null, the system uses the `cc.incident` form instead.

Change Management

Change Management uses the enhanced printing routines. When using the enhanced routines, the **Print** field (Scripts/Views tab) in the associated phase record will determine what form will be printed. If this field is null, the current form of the change or task will be used.

Inventory Management

Inventory Management uses the enhanced printing routines unless the old print routines are selected using one of the methods discussed in *Selecting Pre-A9802 Print Routines* on page 233. When using the enhanced routines, the **Print Format Name** field of the associated device type record (`devtype` file) will determine what form will be printed. If this field is null, the current device format will be used.

Service Level Agreement (SLA) Management

SLA Management will always use the enhanced printing routines.

Selecting Pre-A9802 Print Routines

The enhanced print routines are the default in all releases of ServiceCenter beginning with release A9802. If you want to enable the previous print routines, use one of the following methods:

- Edit the System Wide Company Record.
- Apply Format Control.

System Wide Company Record

To keep the pre-A9802 print routines, you can easily set a global flag which enables these routines for most applications. You can set this flag for all users by accessing your System Wide Company Record and selecting the **Use Old Printing** check box from the Print Options section:

To enable the pre-A9802 print routines in the System Wide Company Record:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Administration**. The Administration menu is displayed.
- 3 Click **System Wide Company Record**.

The System Wide Company Record is displayed (Figure 4-1 on page 234).

Figure 4-1: System Wide Company Record (*info form*)

- 4 Click the Print Options tab.

Figure 4-2: Print Options tab in the company info record

- 5 Select the Use Old Printing check box.
- 6 Click Save.

The old-style printing routines will now be used for Incident Management, Service Management, Change Management, and Inventory Management.

Note: Printing from the database and from SLA Management will always use the enhanced printing routines.

Format Control

You can also use the variable, *\$G.old.print*, in the login Format Control record to set a flag to allow use of the pre-A9802 print routines.

To enable the pre-A9802 print routines with Format Control:

- 1 Make sure that the command line is visible by selecting **Command Line** from the **View** menu.
- 2 Type `fc` on the command line.
- 3 Click the **Start Command** arrow or press **Enter**.

The Format Control Maintenance form is displayed.

- 4 Type `login.DEFAULT` in the **Name** field to set the variable for all users. This is used in the following example.

To set the variable for a specific user (for example, `FALCON`), type `login.<LOGIN NAME>`.

- 5 Press **Enter**.

The login.DEFAULT form is displayed (Figure 4-3 on page 236).

The screenshot shows a window titled "ServiceCenter - [Format Control: login.DEFAULT]". The menu bar includes File, Edit, View, Format, Options, List Options, Window, and Help. Below the menu bar is a toolbar with icons for OK, Cancel, Add, Save, and Delete. A secondary toolbar contains tabs for Views, Queries, Calculations, Validations, Subroutines, Addl Options, and Privileges. The main area is titled "Format Control Maintenance - Main Information" and contains the following fields and options:

- Name: login.DEFAULT (View: short)
- File Name: [Empty]
- System: BP
- Query Format: [Empty]
- Default QBE Fmt: [Empty]
- Options:
 - Save Copy
 - Stored Form Name
 - Run Script
 - Use Default Sort
- Default Sort sequence for queries: [Empty]
- Initialization Expressions:
 - \$pm.asglist={}
 - \$pm.catlist={}
 - \$G.itil=false
 - \$G.company.show="Y"
 - \$G.company.show.no="N"

The status bar at the bottom shows "Ready" on the left and "insert formatctl.maint.g [S]" on the right.

Figure 4-3: Format Control record for user login

- 6 Click **Calculations** or select **Calculations** from the **Options** menu.

The Format Control Maintenance—Calculations form is displayed (Figure 4-4 on page 237).

ServiceCenter - [Format Control: login.DEFAULT]

File Edit View Format Options List Options Window Help

Views Queries Calculations Validations Subroutines Add Options Privileges

Format Control Maintenance - Calculations

Name: login.DEFAULT View: short

add	update	delete	display	initial	calculation
true					\$lo.dept=department in \$file
true					\$G.show.warn=false
true					\$G.multi=true
\$G.multi an					\$lo.company=company in \$file1
true					\$lo.home.assignment="HELPDESK"
true					\$lo.pm.assignments={}
true					\$lo.cm.assignments={}
true					\$lo.can.suspend=false;if (index("amend suspension", cap.exec in
true					\$lo.two.levels="N"
true					\$lo.assignment.query="operators=\\"+\$lo.user.name+\\"
true					\$G.contract.on=true
true					\$G.ass.audit.on=false
true					\$lo.cmgroups.query="members#\\"+\$lo.user.name+\\"
true					if (index("SysAdmin", \$lo.ucapex)>0) then (\$G.ls.SysAdmin=true)

Ready insert formatctrl.maint.calcs.b.g [S]

Figure 4-4: Format Control maintenance—Calculations

- 7 In the next available Calculation field, type `$G.old.print=true`.
- 8 In the Add field, type `true`.
- 9 Click Save.

Old-style printing routines will now be used for Incident Management, Service Management, Change Management, and Inventory Management.

Note: Printing from the database and from SLA Management will always use the enhanced printing routines.

Printing—Setup

ServiceCenter allows you to:

- Print a form (screen print)

Select Print Screen from the File menu to print the screen just as you see it. A screen print is different than printing a record. A screen print simply prints the currently displayed form and the data in the displayed fields.

- Print a record from an application

Select Print Record or Print from the Options menu to print records such as incident tickets or change requests. Printing a record prints all the information within the record, including the updates.

- Select and configure a printer

For printing records, printers used by ServiceCenter clients and for server-side printing are defined in a configuration record. The type of printer configured depends on the platform on which the server is running.

ServiceCenter allows you to configure:

- Standard printers (Windows NT or Unix)
- JES printers (mainframe)

Select Printing Options from the File menu to select and configure a client printer and define a font. This option is described in the *ServiceCenter User's Guide*.

Background Printing In ServiceCenter for Windows NT

Background printing in ServiceCenter for Windows NT requires that you set up printing services for the ServiceCenter service under Windows NT. In this section, you will:

- Set up the ServiceCenter service to run under a user ID with printers defined in the Print Manager.
- Create a new printer record in the ServiceCenter configuration file.

Setting Up Under a User ID

You must set up the ServiceCenter service to run under a user ID that has the printers defined in the Windows NT Print Manager. During the installation, the setup program installed ServiceCenter service to run under the default *LocalSystem* user ID that does not access any printers. To allow the ServiceCenter *spool* background process to access a printer, the ServiceCenter service needs to run under a user ID that has printers defined.

Note: This user ID must belong to an Administrators or Power Users group.

To set up a ServiceCenter service to run under a specific user ID:



- 1 Open the Control Panel and double-click Services.

The Windows NT/2000 Service dialog box is displayed.

Note: For Win/2000, go to: Control Panel>Administrative Tools>Services.

- 2 In the Services list in Windows NT, select ServiceCenter, and then click Startup. In Windows 2000, double click ServiceCenter in the Services list.

The Service dialog box is displayed.

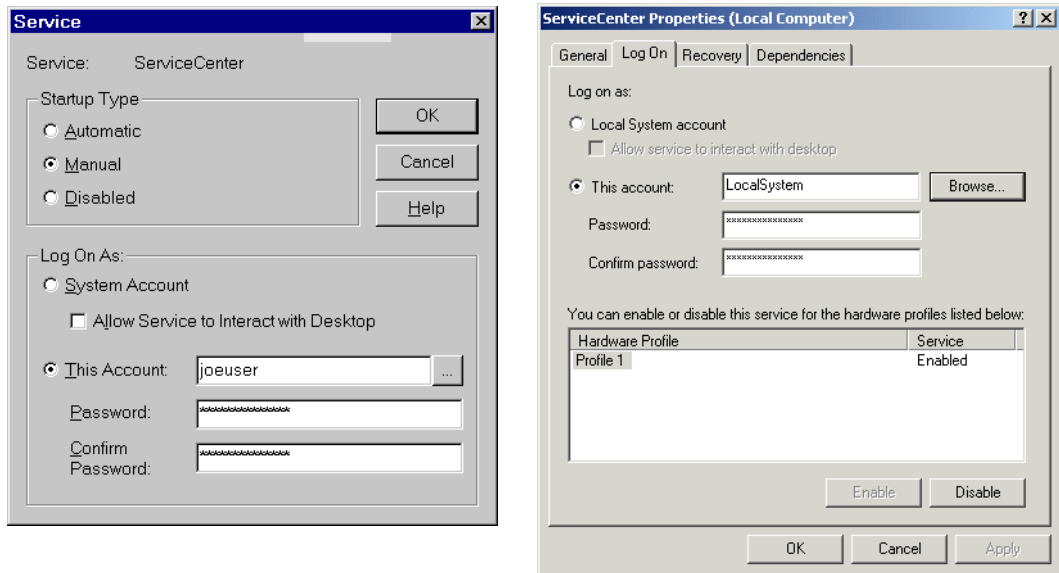


Figure 4-5: Service startup window—Windows NT and Windows 2000



- 3 Click Browse in the This Account field.

The Add User dialog box is displayed in Windows NT, and the Select User dialog box is displayed in Windows 2000.

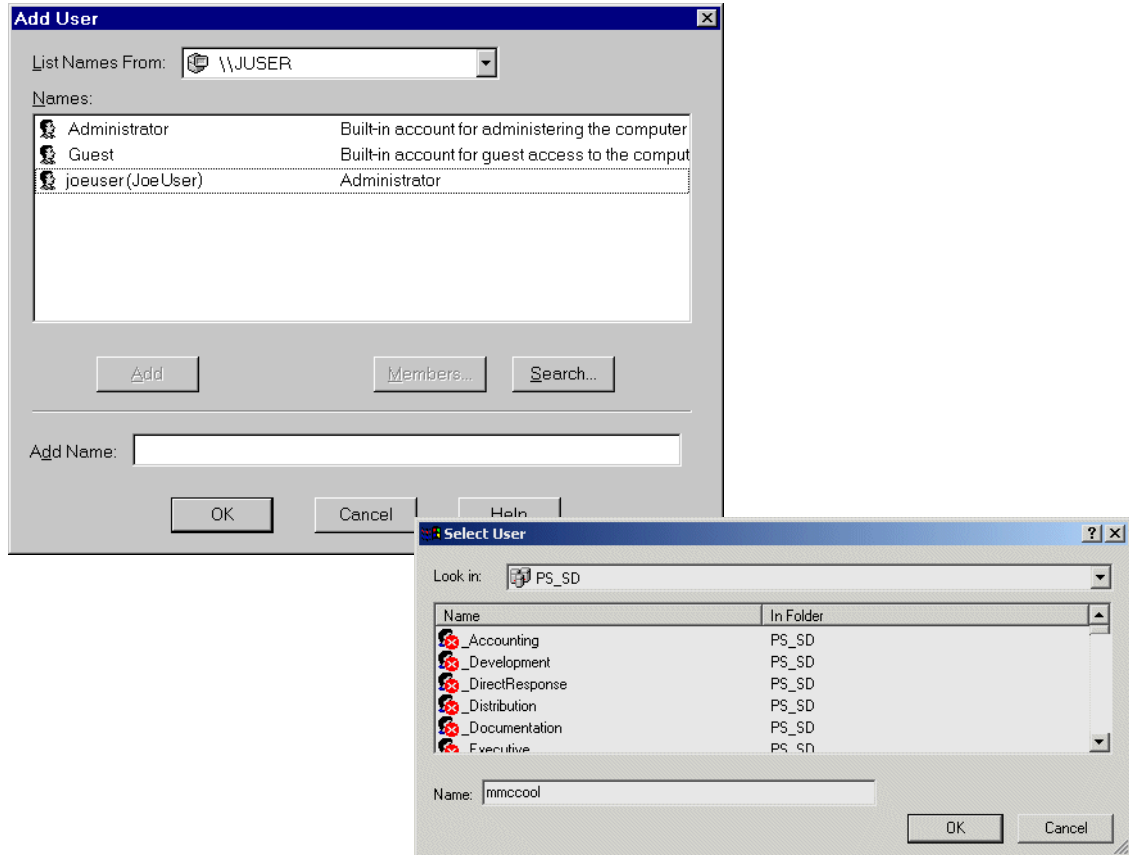


Figure 4-6: Add/Select User window

- 4 Select a domain name from the **List Names From** drop-down list in Windows NT or from the **Look in** drop-down list in Windows 2000.
- 5 Double-click a name from the list displayed.

The name you have selected appears in the **Add Name** field in Windows NT and in the **Name** field in Windows 2000.

- 6 Click **OK**.

The Windows NT Service dialog box is displayed (Figure 1-3 on page 23). The **This Account** field now shows the user ID.

- 7 Enter the **Password**.

- 8 Re-enter the password in the **Confirm the Password** field, and then click **OK**.
A message is displayed stating, *The account <account name> has been granted the Log On As A Service right.*

- 9 Click **OK**.

You are returned to the Windows NT Service dialog box.

When you start the ServiceCenter service, the service now runs under the new user ID instead of the *LocalSystem* user ID.

Creating a New Printer Record In the Configuration File

Next, you must create a new printer record in the ServiceCenter configuration file. The Standard Printer configuration file allows you to set up your ServiceCenter printing for Windows NT or Unix. Printing from a mainframe server is described in the next section.

ServiceCenter is shipped with two standard printer records, `sysprint.winnt` and `sysprint.unix`, for ServiceCenter servers running on Windows NT and Unix, respectively. The printer record does not specify a printer destination, but uses the default printer defined in the Windows NT Print Manager or in Unix as the destination printer. When you select `sysprint.winnt` or `sysprint.unix` in the ServiceCenter Configuration File, the ServiceCenter spool background process routes the print output to the default printer defined for the ServiceCenter server. This setup only works for locally attached printers and Novell network printers. This setup does not apply to Windows NT shared printers.

If multiple printers are defined for the user ID where the ServiceCenter service was running, the user can create multiple printer records on the system.

To access the printer Configuration File:

You can access the printer Configuration File in two ways:

From the command line:

- a Make sure that the command line is visible by selecting **Command Line** from the **View** menu.
- b Type `stdptrs` on the command line.
- c Click the **Start Command** arrow or press **Enter**.

From the Maintenance menu:

- a Click Utilities tab.
- b Click **Maintenance**.
- c Click Hardware tab.
- d Click **Standard Printer**.

The Standard Printers Configuration File form is displayed.

To create a printer record in the ServiceCenter system config file:

- 1 Log on to ServiceCenter as a system administrator.
- 2 In the system administrator's home menu, click the Utilities tab (Figure 1-12 on page 42).
- 3 Click **Maintenance**.
The ServiceCenter Maintenance menu is displayed.
- 4 Select the Hardware tab.

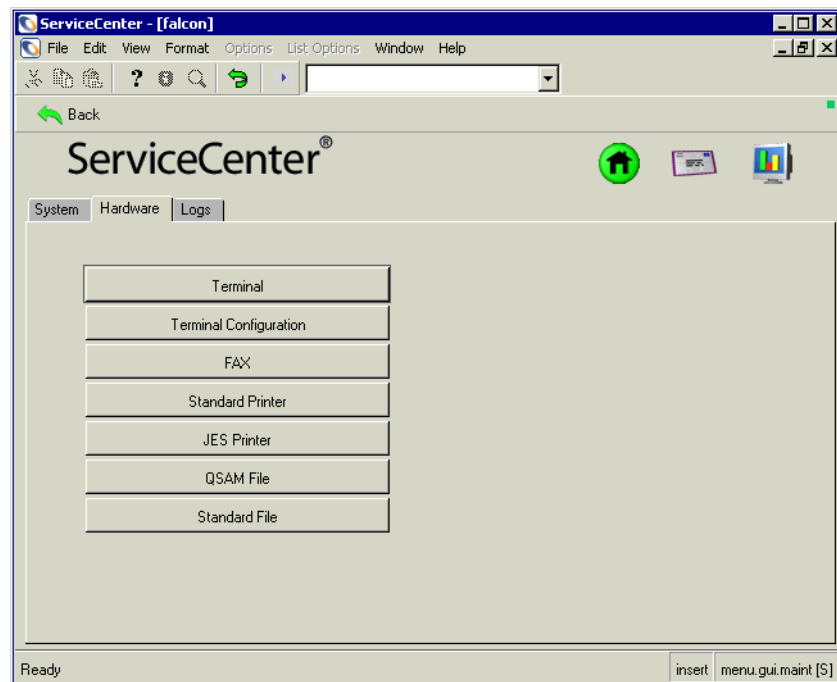
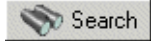


Figure 4-7: Hardware tab in the maintenance menu

- 5 Click **Standard Printer**.



The Standard Printers Configuration File form is displayed.

6 Click Search.

A record is displayed with the list of printer configurations.

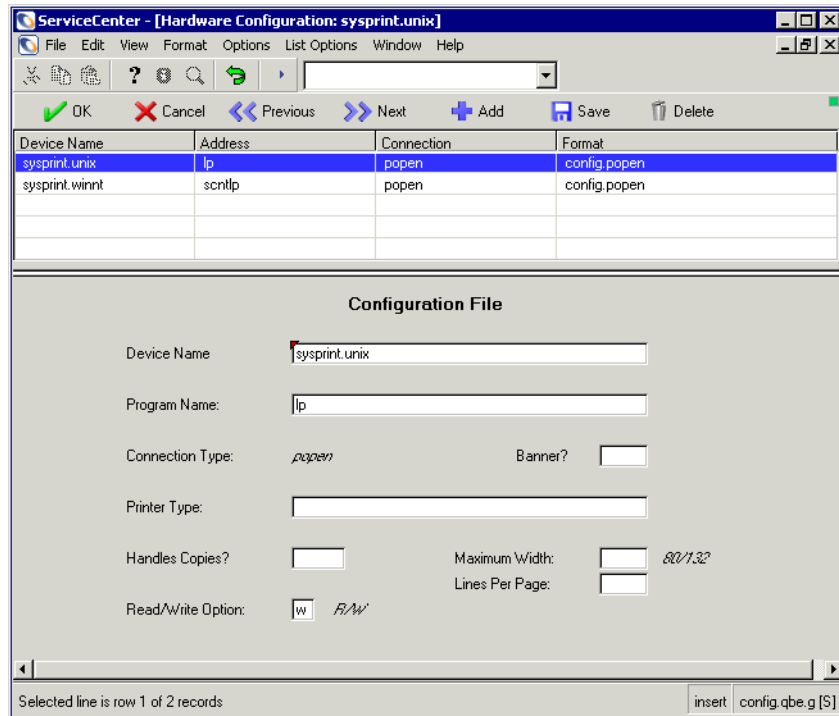


Figure 4-8: Standard printer configuration record

7 Select a printer for your server, that is, Windows NT or Unix.

- *sysprint.winnt* for Windows NT.
- *sysprint.unix* for Unix.

8 Fill in the fields to properly identify the printer where the ServiceCenter server prints.

Refer to the following section for field descriptions.

9 Click Add or press F2.

A message is displayed at the bottom of the window stating: *Record added to the config file.*

10 Click OK or press F3, and then click Back to return to the Maintenance menu.

Configuration File Fields

Field	Description
Device Name	Unique name assigned to the printer in ServiceCenter (for example, sysprint.accounting for a printer located in the Accounting department).
Program Name	<p>Appropriate print command.</p> <ul style="list-style-type: none"> ■ For Unix, enter: <code>lpr</code> ■ For Windows NT, enter: <code>scentprt</code> Select this to print in languages other than English. The print output will be sent to the default windows printer for the computer from which printing is being done. Ensure that the ServiceCenter printing configuration is set to the Server printer, rather than the Client printer. To verify the printing configuration, go to the File menu and select printing Options. When the print command prompt is displayed, click the printer icon and select the printer name that you just created from the qbe list. —Or— <code>scentlp -d <new_printer_name></code> where <code>-d</code> indicates the destination parameter, and <code><new_printer_name></code> is the destination printer name defined in the Windows NT/Windows 2000 Print Manager. If the printer is a Windows NT/Windows 2000 shared printer: the <code><new_printer_name></code> is <code>\\server_name\share_name</code> where <code>share_name</code> is the name from the Share Name field in the Printer Properties dialog box of the Print Manager. For example, if the shared Printer name is <code>account_prt</code> and located on server <code>ACCOUT</code>, the <code><new_printer_name></code> is <code>\\ACCOUT\account_prt</code>. If the printer is a locally attached or Novell printer: <code><new_printer_name></code> must be the name from the Printer Name field in the Printer Properties dialog box of the Print Manager. If no destination printer is selected, the print output will be sent to the default windows printer for the computer from which the printing is being done.
Connection Type	Used to distinguish between the different types of devices in the Configuration File

Field	Description
Banner	Boolean field to determine if a banner page is printed <ul style="list-style-type: none"> ■ Enter true to include a banner page with each print job. ■ Leave blank or enter false to omit a banner page.
Printer Type	Character field where you can enter a description of the printer.
Handles Copies	Boolean field. This field should be set to true for Unix printers. Entering false causes ServiceCenter to ignore any data entered in the copies field when a report is printed.
Maximum Width	Maximum line width (number of spaces) to ensure that the page is properly printed. Eighty (80) is the setting for standard 8.5 x 11 inch paper.
Read/Write Option	Must be set to w for write.
Lines Per Page	Maximum number of lines per page the printer is capable of printing. The default setting is 60.

Creating a New Printer Record for a Mainframe Server

ServiceCenter is shipped with a configuration file for JES printing. You can access the JES Configuration File form in two ways:

- Command line
- Maintenance menu

Note: These instructions assume a familiarity with OS/390. If you are unsure of these procedures, contact your OS/390 system administrator.

To access the JES Configuration File from the command line:

- 1 Make sure that the command line is visible by selecting **Command Line** from the **View** menu.
- 2 Type `jesptrs` on the command line.
- 3 Click the **Start Command** arrow or press **Enter**.
The JES Configuration File form is displayed.

To access the JES Configuration File from the Maintenance Menu:

- 1 In the system administrator's home menu, click the **Utilities** tab (Figure 1-12 on page 42).
- 2 Click **Maintenance**. The ServiceCenter Maintenance menu is displayed.
- 3 Select the **Hardware** tab (Figure 4-7 on page 242).

- 4 Click **JES Printer**. A blank JES Configuration File form is displayed.
- 5 Click **Search**.
A QBE list of available printers is displayed.

The screenshot shows a window titled "ServiceCenter - [Hardware Configuration: sysprint.mvs]". The window contains a "Configuration File" form with the following fields and values:

Device Name:	sysprint.mvs	
Connection Type:	jvs	Sysout Class: 1
Printer Type:		Banner?: false
Handles Copies?	true	Max Width:
Translate Characters From:		
To:		

Below the main fields is an "Options" section with a list of configuration options and their corresponding command strings:

Route:		<i>DEST=RMTnnn</i>
Hold:		<i>HOLD=</i>
Number of Copies:		<i>COPIES=nnn</i>
Form:		<i>SYSOUT=(,form-name)</i>
UCS:		<i>UCS=character-set-code</i>
Fold:		<i>UCS=(character-set-code,FOLD)</i>
FCB:		<i>FCB=fcf-name</i>
Alignment Verify:		<i>FCB=(fcf-name,ALIGN)</i>
Character Set Verify:		<i>FCB=(fcf-name,VERIFY?)</i>
SYSOUT Program Name:		<i>SYSOUT=(,writer-name)</i>
Output Limit:		<i>LINES=nnn</i>
User ID:		<i>DEST=(,userid)</i>
3800 Character Table:		<i>CHARS=(table name)</i>
3800 Overlay Name:		<i>FLASH=(overlay name)</i>
3800 Overlay Count:		<i>FLASH=(overlay name, count)</i>
3800 Output:		<i>OUTPUT=*,referback</i>
3800 Title:		<i>TITLE='title'</i>
3800 Name:		<i>NAME='name'</i>
3800 Address 1:		<i>ADDRESS='address1, address2'</i>
3800 Address 2:		
3800 Building:		<i>BUILDING='building'</i>
3800 Department:		<i>DEPT='department'</i>
3800 Room:		<i>ROOM='room'</i>
3800 Form Definition:		<i>FORMDEF=member</i>
3800 Page Definition:		<i>PAGEDEF=member</i>

At the bottom of the window, it says "Selected line is row 1 of 2 records" and "insert config.jes.g [S]".

Figure 4-9: JES printer configuration file form

- 6 Select your server's operating system from the record list displayed:
 - sysprint.mvs for OS/390.
 - intrdr for a JES internal reader.

The record displayed contains the default information for the print record. The fields must be properly filled in to identify the printer where the ServiceCenter server prints. Refer to *JES Printer Options* on page 248, *JES Options for 3800 Printers* on page 249, and *JES Options Not Specific To 3800 Printers* on page 250 for descriptions of fields and options.

- 7 Click **Add** or press F2 to add a record.

A message is displayed at the bottom of the window stating: *Record added to the config file.*



- 8 Click **Return** to return to the Maintenance menu.

JES Configuration File Fields

Field	Description
Device Name	Unique name assigned to the printer in ServiceCenter (for example, sysprint.accounting for a printer located in the Accounting department).
Sysout Class	Contains the JES sysout class to be assigned to all reports printed to this printer.
Connection Type	Must contain jes for all JES printers. This field is used to distinguish between the different types of devices in the Configuration File.
Banner	Determines if a banner page is printed with each print job. <ul style="list-style-type: none"> ■ Enter true to print a banner page. ■ Enter false or leave the field blank to eliminate the banner page.
Printer Type	Optional description field.
Handles Copies	Should be true for JES printers (JES handles printing the correct number of copies of each report). Entering false causes ServiceCenter to ignore any data entered in the copies field when a report is printed from ServiceCenter.
Max Width (80/132)	Maximum line width should be entered to ensure correct printing of the banner. Eighty (80) is the setting for standard 8.5 x 11 inch paper.

Field	Description
Translate Characters From	Characters which this printer will not print. For example, if your printer only prints uppercase, enter all lowercase letters in this field.
Translate Characters To	Replacement values for the characters this printer will not print. For example, if your printer only prints uppercase, enter uppercase letters in this field.

JES Printer Options

Option	JCL Equivalent	Definition
Route	DEST=RMTnnn	JES remote routing ID. If you omit the node ID, reports are routed to an RJE destination off the local node.
Hold	HOLD=	Contains the JES hold parameter. Any character entered in this field means hold the output.
Number of Copies	COPIES=nnn	Contains the number of copies which will be printed to this printer. This field is filled automatically when the number of copies is specified at report execution time.
Form	SYSOUT=(,form-name)	Contains the JES forms parameter. Specifies special forms or paper.
UCS	UCS=char-set-code	Contains the JES parameter to specify the print train to use.
Fold	UCS=(char-set-code,FOLD)	This field will fold lowercase to uppercase. This is a printer specific feature and is independent of the translate function.
FCB	FCB=fcb-name	Contains JES control buffers parameters.

Option	JCL Equivalent	Definition(Continued)
Alignment Verify	FCB=(fcb-name,ALIGN)	Any character entered in this field will cause a request to be issued to the operator console to check the printer for forms alignment before printing. This field cannot be used with 3800 printers.
Character Set Verify	FCB=(fcb-name,,VERIFY)	Same as <i>alignment verify</i> but also sends a request to the operator console to verify that the image displayed on the printer is the desired one.
SYSOUT Program Name	SYSOUT=(,writer-name)	This contains a JES output writer name.
Output Limit	LINES=nnn	Specifies the maximum number of lines to print.
User ID	DEST=(,userid)	Valid user ID destination established by your installation.

The following fields are used in conjunction with 3800 printers or their equivalent.

JES Options for 3800 Printers

Option	JCL Equivalent	Definition
Character Table	CHAR=(table-name)	Contains a valid character table established by your installation for 3800 printers.
Overlay Name	FLASH=(overlay-name)	Contains a valid overlay form name for 3800 printers.
Overlay Count	FLASH=(overlay-name, count)	Contains the number of copies in which you would like the above overlay form to appear.
Output	OUTPUT=*.referback	Contains processing options for a system output (sysout) data set.
Title	TITLE='title'	Used to print a description of the output on the separator pages of the output of a sysout data set.

Option	JCL Equivalent	Definition(Continued)
Name	NAME='name'	Used to print a preferred name on the separator pages of the output for a sysout data set. Preferred name is the name associated with the output.
Address 1 Address 2	ADDRESS='address1,ad dress2'	Used to print an address on the separator pages of an output data set.
Building	BUILDING='building'	Used to print a building identification on the separator pages of an output data set.
Department	DEPT='department'	Used to print the department identification on the separator pages of an output data set.
Room	ROOM='room'	Used to print a room identification on the separator pages of the output for a sysout data set.
Form Definition	FORMDEF='member'	Identifies a library member that contains statements to tell the Print Services Facility (PSF) how to print the sysout.
Page Definition	PAGEDEF='member'	Identifies a library member that contains statements to tell the Print Services Facility (PSF) how to print the sysout data set on a page-mode printer.

JES Options Not Specific To 3800 Printers

Option	JCL Equivalent	Definition
Record Length	LRECL=nnnn	Specifies the length of the records in a new data set.
Block Size	BLKSIZE=nnnn	Specifies the maximum length, in bytes, of a block.
Record Format	RECFM=ccc (FB,FBA, or VBA)	Specifies the format and characteristics of the records in a new data set.

5 Clocks and the Inactivity Timer

CHAPTER

Clocks

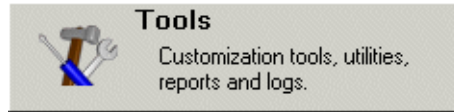
Clocks allow you to track time in specific areas of ServiceCenter. This section uses incident tickets as an example. Incident tickets can be associated with multiple clocks, one clock, or no clocks. Clocks allow you to track the following:

- The time an incident ticket spends in a problem state or different states.
- The time an operator spends editing a ticket.
- The time a ticket spends in an assignment group or multiple groups.

Clocks are based on records in the `clocks` file. To learn more about what a clock is and its function within assignment groups, see *ServiceCenter System Tailoring*.

To access a clock record:

- 1 On the System Administrator's home menu, click the Utilities tab (Figure 1-12 on page 42).
- 2 Click Tools.



The Tools menu is displayed.

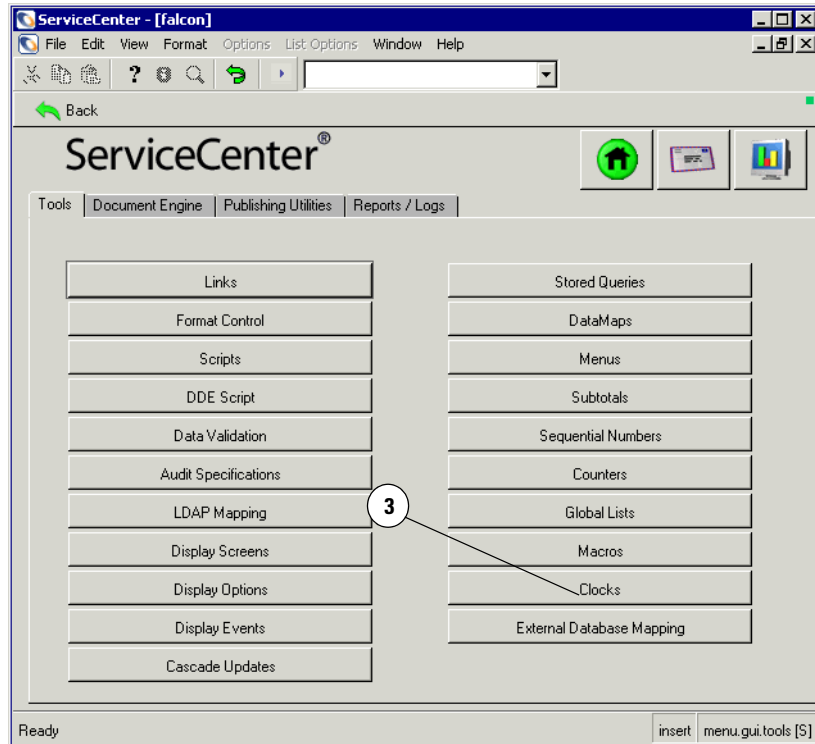


Figure 5-1: Tools Menu

- 3 Click Clocks.
A blank clock record is displayed.

- 4 Enter the name of the clock you want to view, or click **Search** to display a record list of all clocks in the file.

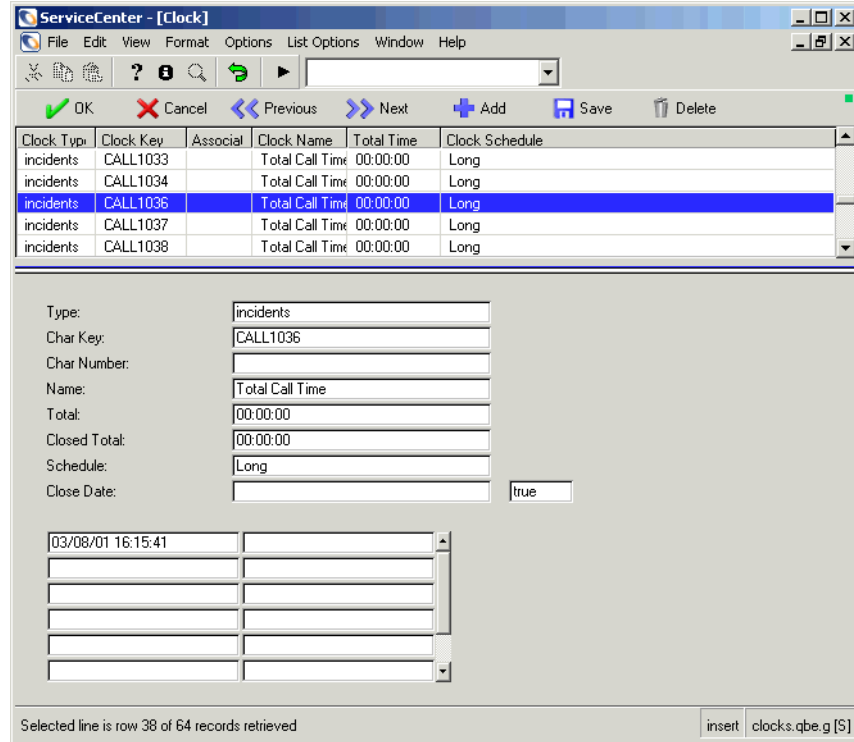


Figure 5-2: Clocks record

Clock Fields

Field	Data Type	Description
type	character	The type of clock, <i>problem</i> , <i>downtime</i> , <i>cm3r</i> , <i>SLA</i> , or <i>incident</i> . All clocks associated with incident tickets have a clock type of <i>problem</i> or <i>SLA</i> .
key.char	character	A character key used to associate a clock with a particular external record. All clocks associated with incident tickets store the incident number in this field.

Field	Data Type	Description
key.numeric	number	A numeric key used to associate a clock with a particular external record. All clocks associated with incident tickets have NULL in this field. (In Incident Management, the incident number is a character field.)
name	character	The name of this clock, for example, <i>Time locked by: <user ID></i> .
total	date/time	The total time that this clock <i>has been running</i> . Note that this value may not always be accurate for clocks which are currently running.
closed.total	date/time	The total time that this clock last ran from start to stop.
schedule	character	The duty table name from the caldaily file (calendar) that applies to this clock. This coordinates clock functions with a particular work shift.
closed.date	date/time	The date and time this clock last stopped.
running	logical	Indicates whether or not this clock is still running.
start (structured array)	date/time	Listing of every start date and time for this clock. Note that a clock may start and stop multiple times over its lifetime.
stop (structured array)	date/time	Listing of every stop date and time for this clock. Note that a clock may start and stop multiple times over its lifetime.

How Does a Clock Work?

Figure 5-3 on page 256 provides an example of how clocks work with incident tickets. The following example uses three states: Open, Pending and Closed.

- Whenever an incident enters the Open state, a clock named *Total Time* is started.
- Whenever an incident enters the Pending state, the *Total Time* clock is stopped, and a clock named *Pending Time* is started.
- Whenever an incident ticket leaves the Pending state, the *Total Time* clock is started again, and the *Pending Time* clock is stopped.
- Whenever an incident enters the Closed state, the *Total Time* clock and the *Pending Time* clock are both stopped.

Applying this model to the example in Figure 5-3 on page 256:

- 1 At 1:00 PM on July 1, *incident ticket 104* is created and saved in the Open state. A clock named *Total Time* is created and started.
- 2 At 4:00 PM on July 2, the incident ticket is moved to the Pending state.
 - The *Total Time* clock is stopped, after running for 27 hours.
 - The *Pending Time* clock is created and starts running.

- 3 At 2:00 PM on July 4th, the ticket is returned to the **Open** state.
 - As the ticket leaves the **Pending** state and changes to **Open** state, the **Pending Time** clock is stopped, after running for 46 hours.
 - As the ticket leaves the **Pending** state, the *Total Time* clock is restarted.

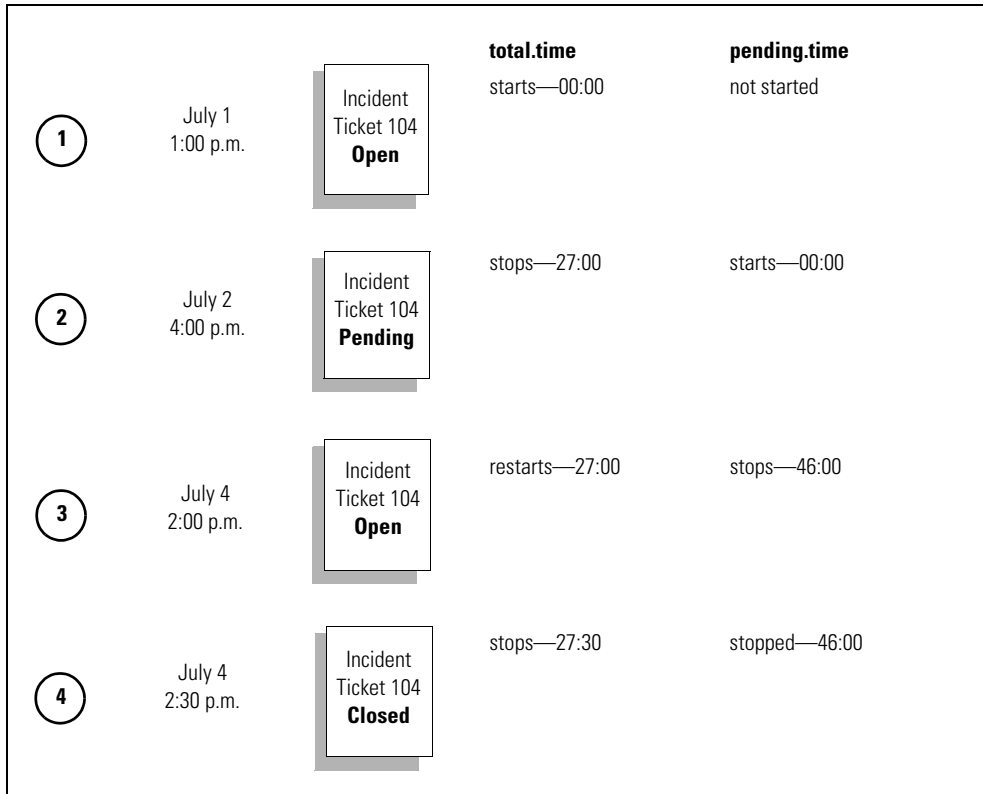


Figure 5-3: Clocks example

- 4 At 2:30 PM on July 4th, the ticket is **Closed**.
 - As the ticket enters the **Closed** state, ServiceCenter attempts to stop the **Pending Time** clock, which is already stopped.
 - As the ticket enters the **Closed** state, the system stops the *Total Time* clock. This clock has been running for 30 minutes since being restarted.

The clock totals are:

- **Total Time**—ran from 1:00 p.m. July 1st until 4:00 p.m. July 2nd: 27 hours; and also ran from 2:00 PM July 4th until 2:30 PM July 4th for 0.5 hours. The total running time: $27 + 0.5 = 27.5$ hours.
- **Pending Time**—ran from 4:00 PM on July 2 until 2:00 PM on July 4, for a complete running time of 46 hours.

Starting and stopping clocks

ServiceCenter provides five methods for starting and stopping clocks. You can start and stop clocks by:

- Status changes.
- Operator tracking.
- Format Control.
- RAD changes.
- Macro Editor.

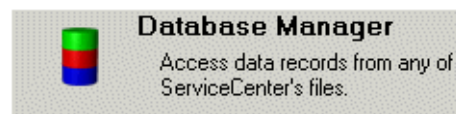
Note: When a clock is started, a record is automatically created in the clocks file.

Starting and Stopping Clocks by Status Changes

In Incident Management, you can define an incident *status*. These status definitions are stored in the `pmstatus` file. Each time an incident ticket changes status, ServiceCenter checks for any clocks that need to be started or stopped. For example, if an incident ticket changes from Pending to Open, ServiceCenter checks for any clocks associated with Pending or Open status that need stopping or starting.

To access a pmstatus record:

- 1 In the system administrator's home menu, click the Toolkit tab (Figure 1-14 on page 45).
- 2 Click **Database Manager**.



The Database Manager dialog box is displayed.

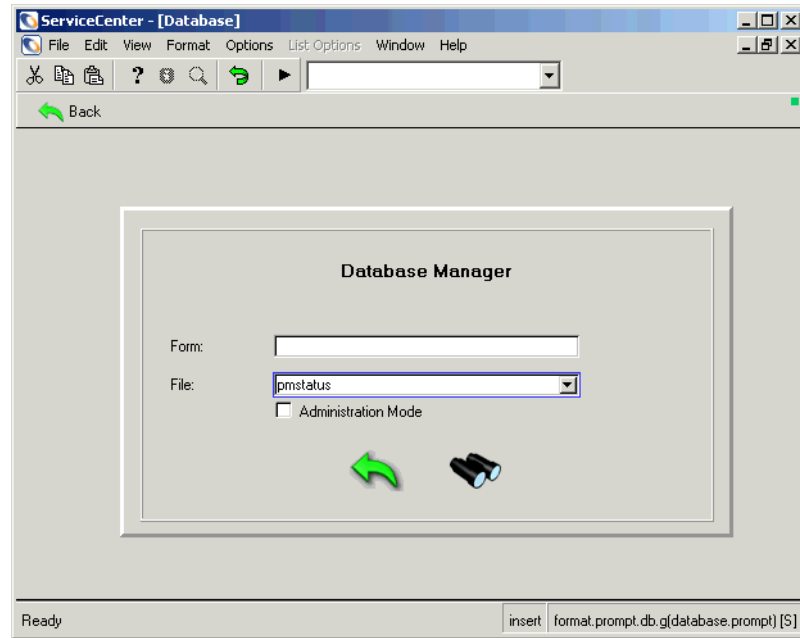


Figure 5-4: Database Manager dialog box

- 3 Type `pmstatus` in the File field, and then click **Search**.
- 4 Select `apm.status` from the QBE list displayed.
A blank record is displayed.
- 5 Click **Search**, and then select the name of the status from the record list for which you want to set a clock.

For example, if you want to start a clock whenever an incident ticket is entered that is Pending customer status, select **Pending customer**.

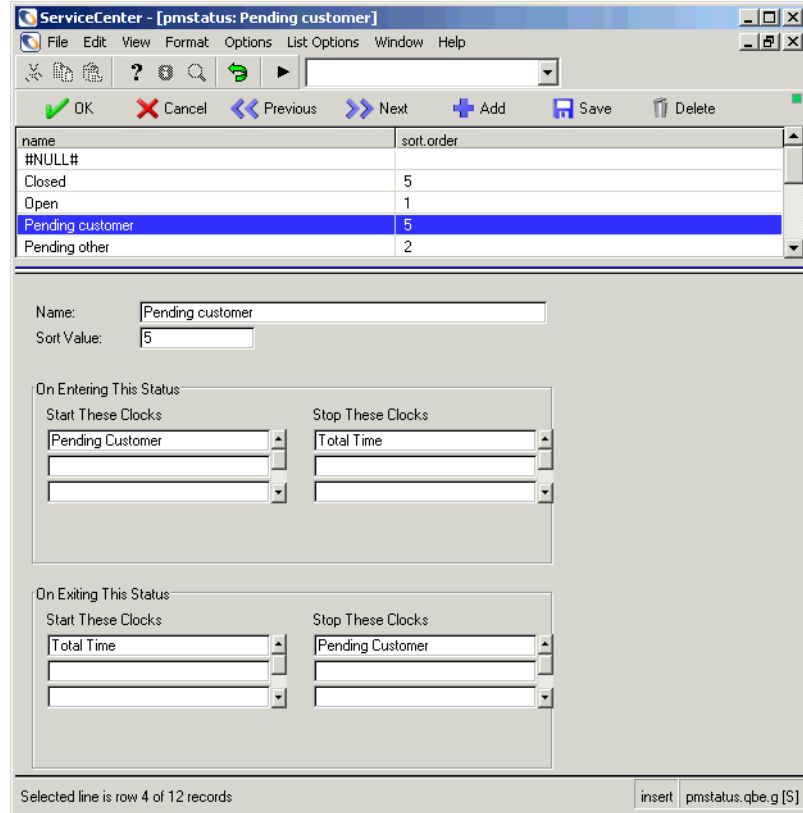


Figure 5-5: PMStatus record

6 Modify the following fields as needed:

Field	Description
Name	Name of the Incident Management status that will trigger the clock.
Sort Value	Order in which statuses are displayed in a combo box.

On Entering This Status

The clocks listed in this structure are affected when an incident ticket enters the status listed in the **Name** field.

Field	Description
Start These Clocks	<p>Clocks that you want Incident Management to start when a ticket enters the status indicated in the Name field.</p> <p>In the example shown, each time an incident ticket enters the <i>Pending customer</i> status, a clock named <i>Pending Customer</i> is started. This clock keeps track of how long the ticket remains in the <i>Pending customer</i> state.</p> <p>Clock Names include:</p> <ul style="list-style-type: none"> ■ Closed ■ Open ■ Pending customer ■ Pending other ■ Pending vendor ■ Referred ■ Reject ■ Replaced Problem ■ Resolved ■ Suspended ■ Work in progress
Stop These Clocks	<p>Clocks you want Incident Management to stop when a ticket enters the status indicated in the Name field.</p> <p>In the example shown, each time an incident ticket enters the <i>Pending customer</i> status, a clock named <i>Total Time</i> is stopped. This clock keeps track of how long the ticket has been in states other than the <i>Pending customer</i> state.</p>

On Exiting This Status

The clocks listed in this structure are affected when an incident ticket enters a status other than the status listed in the Name field.

Field	Description
Start These Clocks	<p>Clocks that you want Incident Management to start when a ticket leaves this status.</p> <p>In the example shown, each time an incident ticket exits the Pending customer status, a clock named Total Time is started. This clock keeps track of how long the ticket has been in states other than the Pending customer state.</p>
Stop These Clocks	<p>Clocks that you want Incident Management to stop when a ticket leaves this status.</p> <p>In the example shown, each time an incident ticket exits the Pending customer status, a clocked named Pending Time is stopped. This clock keeps track of how long the ticket remains in the Pending customer state.</p>

7 Choose one of the following:

- Click **Save** or press **F2** to save the changes made to the record.

A message is displayed in the status bar that states: *Record updated in the pmstatus file.*
- Rename the record, and click **Add** or press **F5** to create a new *pmstatus* record.

Stopping and Starting Clocks Via Operator Tracking

ServiceCenter includes an option available in the Incident Management Environment record called **Track Operator Times**. When this option evaluates to *true*, the system automatically starts a clock whenever an operator begins editing a record. The clock is stopped when the operator stops editing the record. The name of this clock is **Time viewed by: <operator>**, where *<operator>* is the user editing the record. For example if **FALCON** is editing a record, the clock is named **Time viewed by: FALCON**.

Stopping and Starting Clocks With Format Control

Clocks can be started and stopped through ServiceCenter's Format Control utility. Two Format Control routines are used:

- *apm.start.clock* – Starts a clock
- *apm.stop.clock* – Stops a clock

To start or stop a clock from Format Control, you simply invoke the appropriate subroutine and pass it the appropriate parameters. For details on using the Format Control utility, see *ServiceCenter System Tailoring, Volume 1*.

To get to this example, go into the Format Control utility by following the steps below:

- 1 Go to a command line and type `fc`.
- 2 Enter `problem.sw.desktop.open` and click Search.
- 3 When the record displays, select **Subroutines** from the **Options** menu.
- 4 Once in Subroutines, click on **Options** and select **Show Expanded Form**.
- 5 Enter `apm.start.clock` in the **Application Name** field.

The following figure displays a Format Control record that will start a clock named *elvis*.

The screenshot shows the ServiceCenter application window titled "ServiceCenter - [Format Control: problem.sw.desktop.open]". The window has a menu bar (File, Edit, View, Format, Options, List Options, Window, Help) and a toolbar with icons for OK, Back, Add, Save, and Delete. Below the toolbar are tabs for Views, Queries, Calculations, Validations, Subroutines, Add Options, and Privileges. The main area is titled "Format Control Maintenance - Subroutines" and displays the following information:

Name: problem.sw.desktop.open View: long

Subroutines

Application Name: apm.start.clock
 Comments: Starts a clock called "elvis"

Names	Values
name	problem
prompt	elvis
query	number in \$file
time1	NULL

Error Message:
 Add:
 Update: true
 Delete:
 Before: true
 Display:
 Initial:

Selected line is row 1 of 1 records

insert formatctl.maint.subs.v.g(fc.view) [S]

Figure 5-6: Setting clocks in Format Control

The following table describes the parameters that are entered in the Names and Values arrays for *apm.start.clock*:

Parameters for the `apm.start.clock` Application

Names	Type	Description/Values
<code>name</code>	character	The <i>type of clock</i> to start. For example, all incident management clocks are of type <code>problem</code> or <code>SLA</code> .
<code>prompt</code>	character	The name of this clock, for example, <code>elvis</code> . The value you put in here needs to be unique within a given incident ticket. You cannot have two clocks named <code>boris</code> associated with the same incident ticket. The system would restart the existing <code>boris</code> clock when you try to open a second clock named <code>boris</code> . No requirement exists that clock names be unique between incident tickets. You could have several thousand incident tickets, each with a clock called Total Time .
<code>query</code>	character	The unique character key for this clock. For an incident clock, pass the incident number of the incident ticket with which you want this clock to be associated, for example, <code>number in \$file</code> .
<code>time1</code>	date/time	The time at which this clock is to start (defaults to current date and time). Note that putting in a time prior to the present rolls back all clock events since that time. Usually, you should leave this blank and allow it to default to <code>tod()</code> .

The following table describes the parameters that are entered in the `Names` and `Value` arrays for `apm.stop.clock`.

Parameters for the `apm.stop.clock` Application

Names	Type	Description/Values
<code>name</code>	character	The <i>type of clock</i> to stop all problem clocks are of type <code>problem</code> or <code>SLA</code> .
<code>prompt</code>	character	The name of this clock, for example, <code>elvis</code> . The value you put in here needs to be unique within a given incident ticket. You cannot have two clocks named <code>boris</code> associated with the same incident ticket. The system would stop the existing <code>boris</code> clock when you try to stop a second clock named <code>boris</code> . No requirement exists that clock names be unique between incident tickets. You could have several thousand incident tickets, each with a clock called <code>Total Time</code> .
<code>query</code>	character	The unique character key for this clock. For an incident ticket, pass in the incident number of the incident ticket with which you want this clock to be associated, for example, <code>number in \$file</code> .
<code>string1</code>	character	Either <code>stop</code> or <code>strobe</code> . If you want to stop a clock, set this value to <code>stop</code> . <i>Strobing</i> a clock simply forces it to recalculate its current running time.
<code>time1</code>	date/time	The time at which this clock is to stop (defaults to current date and time).

Starting and Stopping Clocks Via Rad

You can easily start and stop clocks via ServiceCenter's RAD programming.

- Clocks can be started by calling `apm.start.clock`.
- Clocks can be stopped by calling `apm.stop.clock`.

Note: Clocks can be in various applications in ServiceCenter other than Incident Management. If you choose to use a clock for an application other than Incident Management, ensure that you select a clock type that is not already in use.

Accessing a Clock

To view all the clocks associated with an incident ticket:



- ▶ Click Clocks when editing a problem record.

A shortcut window (Figure 5-7 on page 266) is displayed listing all the clocks currently associated with this ticket and the time that each clock has been running. This display is a snapshot of the various clocks and can be updated by clicking Clocks again.

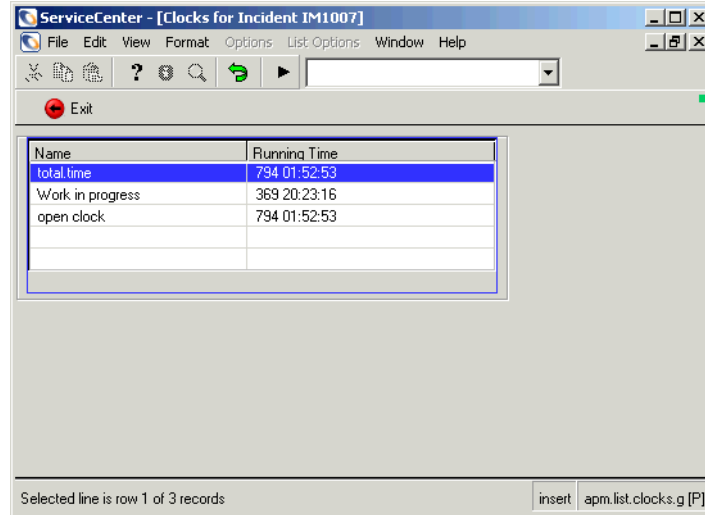


Figure 5-7: Clocks

Inactivity Timer

The inactivity timer allows you to terminate the sessions of users who have been idle for a specified period of time. The inactivity timer will shut down all users on the system after a prescribed interval with the exception of those defined in the *inactivity schedule record*.

Note: To use the inactivity timer you must have the *inactive* background process running on the ServiceCenter server. Refer to *Start Scheduler* on page 53 for procedures on starting background processes.

Users can be alerted prior to a scheduled inactivity shutdown by defining a warning interval in the inactivity schedule record. The warning message is displayed in Active Notes.

When the defined inactive time interval has elapsed, the client is terminated without further notification.

Starting the Inactivity Timer

To define a scheduled inactivity shutdown:

- 1 In the system ServiceCenter home menu, click the Utilities tab.
- 2 Click **Maintenance**.
The Maintenance menu is displayed.
- 3 Click **Start Inactivity Timer**.

The inactivity schedule record is displayed (Figure 5-8 on page 268). If no inactivity shutdown interval has been scheduled, the record is blank with a default interval of 30 minutes appearing in the **Number of minutes to allow idle user** field.

4 Change the inactivity interval to suit your needs.

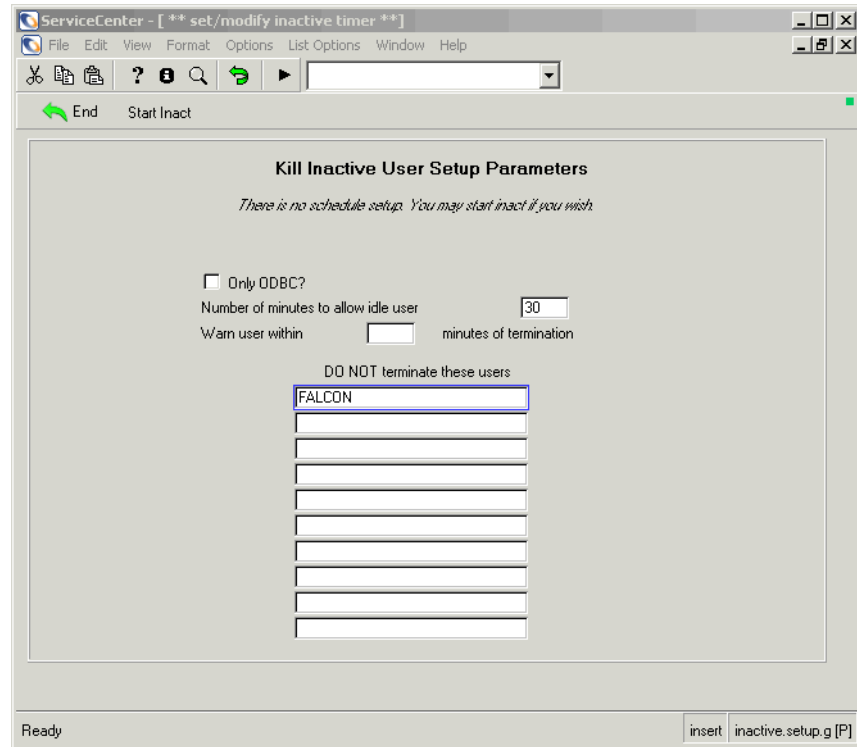


Figure 5-8: Inactivity parameters defined

- 5 Define a warning interval in the **Warn user within <n> minutes of termination** field to alert your users that their sessions are about to be terminated due to inactivity.

Note: Users must select **Active notes** from the **View** menu for the warning message to appear.

- 6 Enter the names of users whose sessions you do not want to terminate for inactivity in the array titled **DO NOT terminate these users**.
- 7 Click **Start inact** to schedule the inactivity shutdown interval.

You are returned to the Maintenance menu. The following message is displayed in the status bar: *The inactive process has been set up to look for users idle after 30 minutes.*

Stopping the Inactivity Timer

To stop the scheduled shutdown of idle users:

- 1 Open the inactivity schedule record using the procedures described in steps 1-3 in *Starting the Inactivity Timer* on page 267.
- 2 Click **Stop** **inact**.

You are returned to the Maintenance menu. The following message is displayed in the status bar: *Inactivity Schedule Record futured to mm/dd/yyyy hh:mm:ss.*

Note: Stopping the inactivity timer using this procedure disables the scheduler, but leaves the record with the same appearance.

Restarting the Inactivity Timer

You may restart the inactivity timer using the current parameters or edit them before resetting the record.

To restart the timer:

- 1 Open the inactivity schedule record using the procedures described in steps 1-3 in *Starting the Inactivity Timer* on page 267 (Figure 5-8 on page 268).
- 2 Click **Reset** **inact**.

You are returned to the Maintenance menu. The following message is displayed in the status bar: *The inactive process has been set up to look for users idle after 30 minutes.*

Deleting the Inactivity Schedule Record

Deleting the record from the schedule file gives all users unlimited inactivity time. To apply the timer again, you must redefine time limits and excluded users.

To delete the inactivity schedule record:

- 1 Open the inactivity schedule record using the procedures described in steps 1-3 in *Starting the Inactivity Timer* on page 267 (Figure 5-8 on page 268).
- 2 Click **Delete** **inact**.

The fields in the inactivity schedule record are cleared of parameters (with the exception of the default 30 minute inactivity interval), and the following message is displayed in the status bar: *Record deleted from the schedule file.*

6

Time Zone Function and Date Formats

CHAPTER

Overview

The Time Zone Function within ServiceCenter is designed to provide enhanced internal handling of date/time fields. The main features are:

- Automatic clock adjustment during Time Zone switchovers, such as, Standard Time to Daylight Savings Time.
- Accurate date/time interval calculations, adjusting automatically for any Time Zone changes occurring during the date span.
- Ability to define Local Time Zones down to the individual operator level, if necessary. This allows users, local or remote, to view the same date/time data and have it automatically converted to their correct local time.
- Ability to set various Date Formats in order to view dates in the local standard.
 - Standard US format (mm/dd/yy)
 - European format (dd/mm/yy)
 - Optional format (yy/mm/dd)

The Time Zone and/or Date Format can be set as a default for the entire system within the **System Wide Company Record**. This default can be overridden by setting a different Time Zone and/or Date Format in individual operators' *Operator Records*. This feature is useful if remote users have different Time Zones or use a different Date Format in their location.

The ServiceCenter file system includes Time Zone records for many world regions. These records contain offsets from Greenwich Mean Time (GMT) and local switchover definitions. Refer to *Maintaining the tzfile* on page 276 for *tzfile* cautions and instructions. You will learn to:

- set the default Time Zone and Date Formats.
- set the Time Zone and Date Formats for individual operators.
- create and modify Time Zone records.

Set the Default Time Zone and Date Format

The Time Zone function allows a default Time Zone and Date Format to be set for all operators on the ServiceCenter system. This is done within the System Wide Company Record, but can be overridden for individual operators within the Operator Record (see *Setting the time zone and date format for an operator* on page 275).

The following example demonstrates setting up the default Time Zone as US Pacific Standard Time and the Date Format as US Standard (mm/dd/yy) within the System Wide Company Record.

To access the System Wide Company Record:

- 1 Click the Utilities tab in the ServiceCenter Home menu.
- 2 Click **Administration**.
The Administration menu is displayed.
- 3 Click **System Wide Company Record** in the *Information* structure.
The System Wide Company Definition (info.company.g) form is displayed.
- 4 Click the Date Info tab and position the cursor in the **Time Zone** field (Figure 6-1 on page 272).

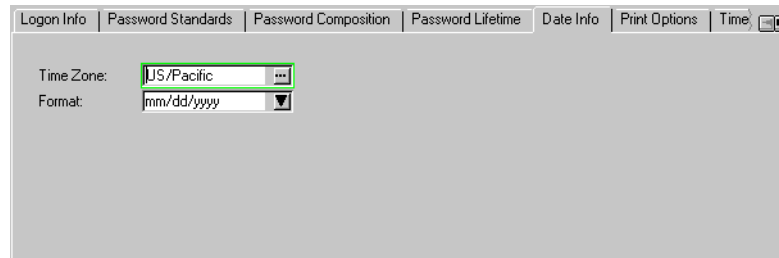


Figure 6-1: System Wide Company Record—Date Info tab

- 5 Enter the name of the Time Zone in this field. For this example, enter US in the field to view all Time Zone records starting with US.

Note: If you don't know the name, you can click the **Fill** button to view the available Time Zone data.

- 6 Click **Fill**.

A QBE list of records that start with *US* in the *tzfile* are displayed (Figure 6-2 on page 273). Each record represents a different Time Zone.

The screenshot shows a window titled "ServiceCenter - [Select Related Records]". It has a menu bar with File, Edit, View, Format, Options, List Options, Window, and Help. Below the menu is a toolbar with icons for back, forward, search, and other functions. A search field contains the text "US". Below the toolbar is a table with three columns: Name, Date Format, and Description. The table lists various US time zones, with "US/Pacific" selected. At the bottom of the window, there is a status bar with a message: "More than one record in tzfile file matches field 'time.zone'".

Name	Date Format	Description
US/Alaska	mm/dd/yy	United States Alaska Time Zone Standard, Daylight, War, Presidential Electi
US/Aleutian	mm/dd/yy	United States Aleutian Time Zone Standard, Daylight, War, Presidential Elec
US/Arizona	mm/dd/yy	United States Arizona Time Zone Standard Time ONLY since 1946
US/Central	mm/dd/yy	United States Central Time Zone Standard, Daylight, War, Presidential Electi
US/East Indiana	mm/dd/yy	United States East Indiana Time Zone Standard Time ONLY since 1946
US/Eastern	mm/dd/yy	United States Eastern Time Zone Standard, Daylight, War, Presidential Elec
US/Hawaii	mm/dd/yy	United States Hawaii Time Zone Currently ONLY Standard Time
US/Mountain	mm/dd/yy	United States Mountain Time Zone Standard, Daylight, War, Presidential Ele
US/Pacific	mm/dd/yy	United States Pacific Time Zone Standard, Daylight, War, Presidential Electi
US/Samoa	mm/dd/yy	United States Samoan Time Zone Standard time ONLY

More than one record in tzfile file matches field "time.zone".

Figure 6-2: Selecting a Time Zone

- 7 For this example, select **US/Pacific**.

The System Information Definition form is displayed again with *US/Pacific* filled in the **Time Zone** field.

Notice that a date format is automatically entered in the **Format** field that corresponds with the *US/Pacific* time zone. This date format is *mm/dd/yy*, the Standard US date format (see Figure 6-1 on page 272).

- 8 Click **Save** to save the updated record.
- 9 Select **Options > Set Parm**s.

A message confirming the setting of the Time Zone for the entire ServiceCenter system is displayed at the bottom of the form:

System setparms time zone set using tz record: *US/Pacific*.

- 10 Click **OK** to return to the previous menu.

Important: The ServiceCenter System *must* be shut down and brought back up again in order for the Time Zone and Date Format to take effect.

All date/time data viewed by all operators on this system will now be converted to the US Pacific Time Zone and will display in the Standard US format of *mm/dd/yy* unless overridden within the individual operator records. Refer to *Set the Time Zone and Date Format for Individual Operators* on page 274.

Set the Time Zone and Date Format for Individual Operators

Control of Time Zone and Date Formats are provided at the operator level for local control. This allows remote users located in time zones different than the CPU location to view date/time fields with automatic conversion to their correct local time. Similarly, the date format can be controlled as well.

For example, ServiceCenter is running on a CPU located in San Diego, CA, under local Pacific Standard Time using standard US formatted dates (mm/dd/yy). Remote users logged onto ServiceCenter from Western Europe are now able to view the same date/time data with the time converted to their local time of Western European Time and the dates in European format (dd/mm/yy).

Setting of local time zones and date formats within an Operator record overrides the values set up in the System Wide Company Record as the system-wide defaults.

The following example shows the steps necessary to override the system default for a specific operator.

To access an Operator record:

- 1 Click the Utilities tab in the ServiceCenter Home menu.
- 2 Click **Administration**.

The Administration menu is displayed.

- 3 Click **Operators** in the *Security* structure.

The operator form is displayed (Figure 6-3 on page 275).

- Position the cursor in the **Login Name** field and enter the name of the operator whose record you want to modify. Press **Enter**.

-or-

Click **Search** to perform a *true* query and retrieve a list of all current Operator records. From the displayed queue screen, select a record to view and modify by double-clicking on the Name in the record.

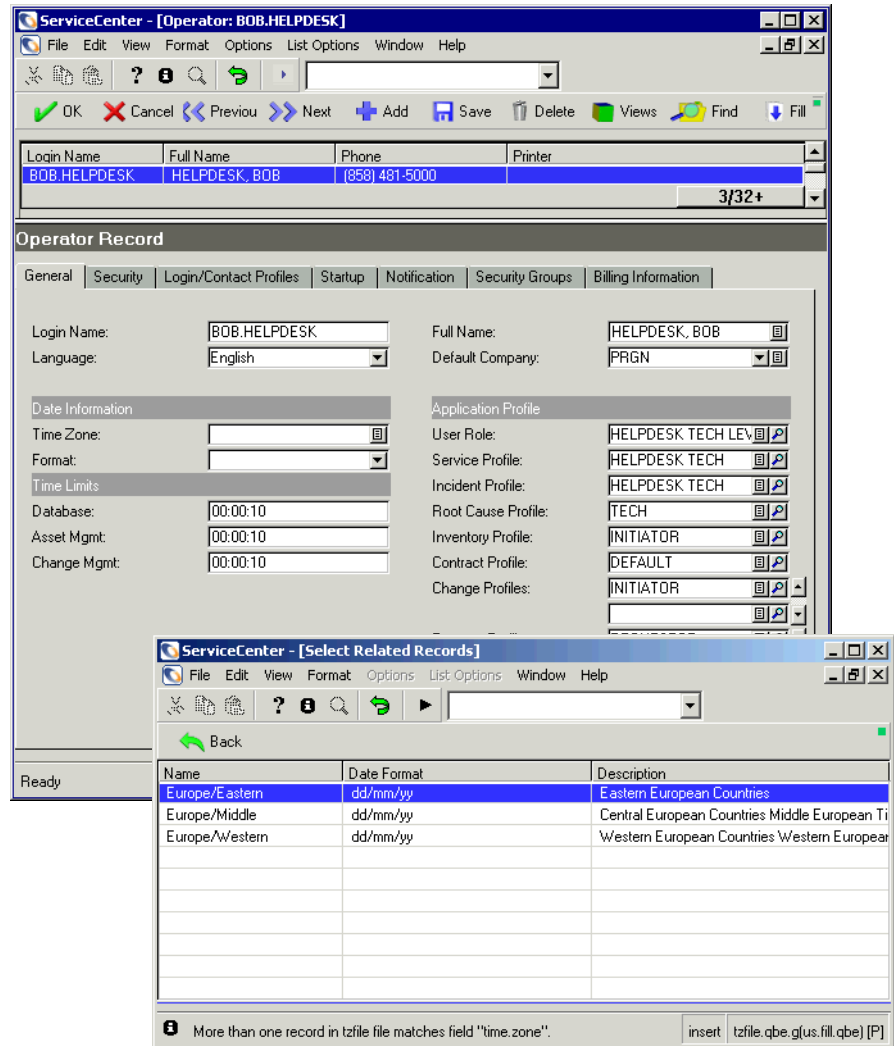


Figure 6-3: Setting the time zone and date format for an operator

- Position the cursor in the **Time Zone** field.

- 6 Enter the name of the Time Zone record in this field. For this example, enter **Europe** in the field to view all Time Zone records starting with Europe.

Note: If you do not know the name of the Time Zone, click the **Fill** button to view the available Time Zone data.

- 7 Click **Fill**.

A QBE list of records that start with *Europe* in the *tzfile* are displayed, similar to the list displayed in Figure 6-2 on page 273. Each record represents a different Time Zone within Europe.

- 8 For this example, click **Europe/Western**.

The *operator* form is displayed again with *Europe/Western* filled in the **Time Zone** field.

Notice that a date format is automatically entered in the **Format** field that corresponds with the *Europe/Western* time zone. This date format is *dd/mm/yy*, the European date format.

- 9 Click **Save** or **OK** to save the record change.

If you are modifying an Operator record other than your own, the changes take effect the next time a user logs on using that Operator ID.

If the user was already logged on, the user needs to log off and on again for the changes to take effect.

Maintaining the *tzfile*

Due to its critical nature, access to the *tzfile* is limited to system administrators for maintenance.

Important: The *tzfile* is among the most sensitive and critical of all ServiceCenter databases. Unlike most user databases, the ServiceCenter system relies on the *tzfile* to perform low-level date calculations. This means that *tzfile* modifications impact the entire user community and all ServiceCenter system processes, including the scheduling of background processes.

Note: The ServiceCenter file system includes Time Zone records for many world regions. Since local time zones are controlled by ever-changing social and political factors, accuracy of the canned Time Zone records cannot be guaranteed. The system administrator assumes responsibility for monitoring time-zone-related world events and recording them in the *tzfile*.

To access the tzfile:

- 1 Click the Toolkit tab in the system administrator's ServiceCenter Home menu.
- 2 Click **Database Manager**.
The initial Database Manager (*format.prompt.db*) form is displayed.
- 3 Type **tzfile** in the **Form** field and press **Enter**.
The *tzfile* form is displayed.
- 4 Press **Enter** or click **Search** to perform a *true* query and retrieve a QBE list of approximately forty pre-built records, which you can browse.
- 5 Scroll through the records to find a record for viewing. For this example, find and click on **US/Eastern**.

The *tzfile* form is displayed again with the fields filled in that correspond to the US/Eastern time zone (Figure 6-4 on page 278).

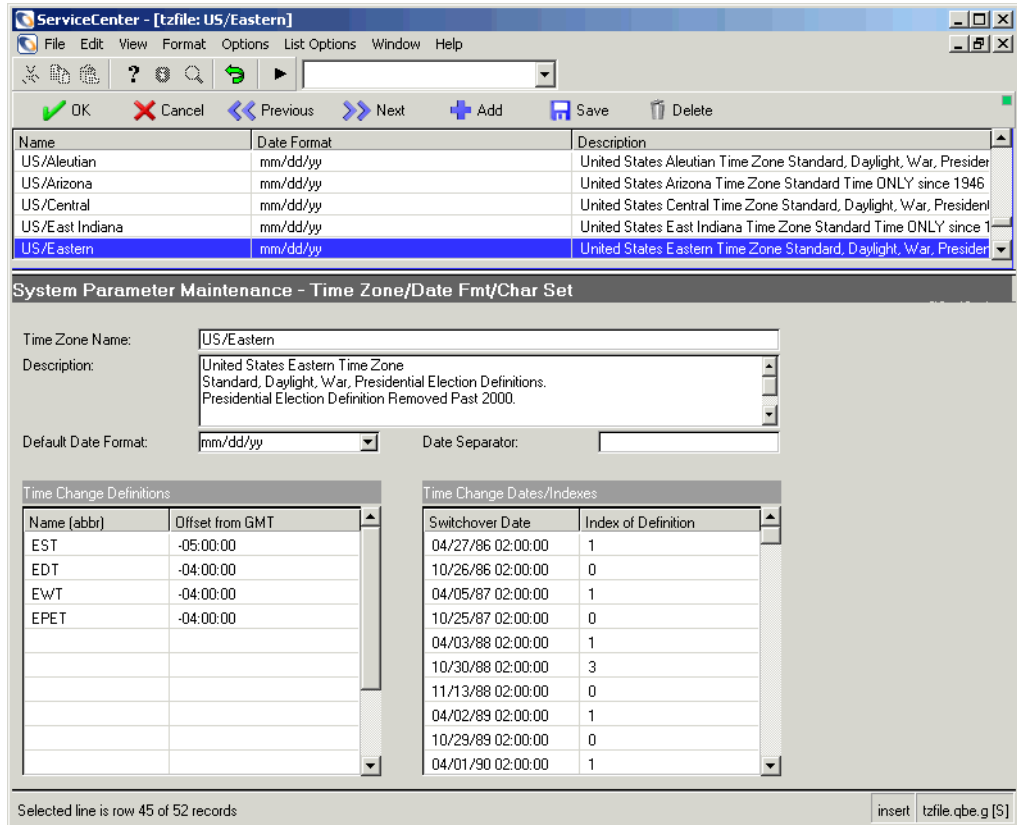


Figure 6-4: Browsing through the pre-built records within the tzfile

The following field definitions identify the type of data needed for the record.

Field	Description
Time Zone Name	Unique key by which this record is referenced on the System Wide Company Record and on individual Operator records. For example, a user whose Operator record specifies US/Eastern in the Time Zone field is bound by this record.
Description	Text description of the time zone name, including region and time zone.

Field	Description
Default Date Format	<p>Optional field containing the date formats. You only need to enter a format to override the format set in the System Wide Company Record. The formats are:</p> <ul style="list-style-type: none"> ■ mm/dd/yy - Standard US date format where mm/dd/yy equals month, day, and year. ■ dd/mm/yy - European date format where dd/mm/yy equals day, month, and year. ■ yy/mm/dd - Optional date format where yy/mm/dd equals year, month, and day. ■ mm/dd/yyyy - Optional date format where mm/dd/yyyy equals month, day, and year. ■ dd/mm/yyyy - Optional date format where dd/mm/yyyy equals day, month, and year. ■ yyyy/mm/dd - Optional date format where yyyy/mm/dd equals year, month, and day.
Date Separator	<p>Defining separator character to be used in the date format, such as / for separating the month, day, and year. For example: MM/DD/YY, which is also the default separator character.</p>
Time Change Definitions	<p>This structure defines every possible Greenwich Mean Time (GMT) offset that can occur within this time zone.</p>
Name (abbr)	<p>Abbreviations help the administrator interpret the offsets; no system processing is associated with these abbreviations.</p>
Offset from GMT	<p>Time Zone records for many world regions contain offsets from Greenwich Mean Time (GMT) and local switchover definitions. Offsets are referenced by their position (index) within the structured array. That is, the first offset (<code>EST -05:00:00</code>) occupies position 0; the second (<code>EDT -04:00:00</code>), position 1, etc.</p>

Field	Description
Time Change Dates/Indexes	This structure defines when time changes occur.
Switchover Date and Index of Definition	<p>Common change involves redefining the switchover date. For example, before 1987 the US switchover date for Eastern Daylight Time (GMT -4) was defined as the <i>last</i> Sunday in April. The first entry in this field instructs ServiceCenter to begin using the second GMT offset (the offset in position 1 at 02:00:00 on April 27, 1986).</p> <p>Example: The US/Eastern time zone record would have defined future switchover dates accordingly:</p> <pre>04/27/86 02:00:00__ 1____</pre> <p>This four-hour offset from GMT persisted until the next entry:</p> <pre>10/26/86 02:00:00__ 0____</pre> <p>This entry instructed ServiceCenter to begin using the first offset from GMT (the offset in position 0) at 02:00:00 on October 26th, 1986. Similarly, the following offset persists until the next switchover entry, and so on.</p>

Create Time Zone Records

If a necessary Time Zone definition is not included in the canned *tzfile*, or if you want to create a new Time Zone for testing purposes, you can create the new Time Zone by adding another record to the *tzfile*. You can model your new Time Zone from an existing record, or you can enter every field manually. You identify the new record by assigning a unique Time Zone Name.

For instructions on how to use the new Time Zone, refer to the previous sections *Set the Default Time Zone and Date Format* on page 272 and *Set the Time Zone and Date Format for Individual Operators* on page 274.

Modify Time Zone Records

Changing Switchover Dates

A common change involves the redefinition of a switchover date. For example, before 2001 the US switchover date for Eastern Daylight Time (Offset from GMT -04:00:00) was defined as the *last* Sunday in October 2000. The US/Eastern Time Zone record would have defined future switchover dates accordingly:

Note: The following graphic (Figure 6-5 on page 281) indicates switchover dates for the first Sunday of April and the last Sunday of October 2001.

Time Change Definitions		Time Change Dates/Indexes	
Name (abbr)	Offset from GMT	Switchover Date	Index of Definition
EST	-05:00:00	04/05/98 02:00:00	1
EDT	-04:00:00	10/25/98 02:00:00	0
EW7	-04:00:00	04/04/99 02:00:00	1
EPET	-04:00:00	10/31/99 02:00:00	0
		04/02/00 02:00:00	1
		10/29/00 02:00:00	0
		10/29/00 02:00:00	0
		04/01/01 02:00:00	1
		10/28/01 02:00:00	0

Figure 6-5: Switchover dates

In 1986 a new definition for Eastern Daylight Time was announced. The new switchover was to occur on the *first* Sunday in April beginning in 1987. To accommodate this change, a system administrator would simply have changed the switchover dates.

Adding New GMT Offsets

To accommodate a new offset, add the offset in the last **Time Change Definitions** structure in the **Name (abbr)** field of the time zone record. Note the new offset's position in the **Index of Definition** field in the **Time Change Dates/Indexes** structured array and use this index to define switchover dates.

In this example, a *NEW* offset in the **Offset from GMT** field of (GMT -04:30:00) is added to the bottom of the **Time Change Definitions** structured array. An appropriate **Switchover Date** for this new offset is inserted into the **Time Change Dates/Indexes** structure in its correct chronological sequence.

Note: The following graphic illustrates the *NEW* Offset from GMT at -4.5. An appropriate **Switchover Date** is inserted in its correct chronological sequence (such as, *04/06/03*) and the **Index of Definition** reflects position 5.

Time Change Definitions		Time Change Dates/Indexes	
Name (abbr)	Offset from GMT	Switchover Date	Index of Definition
EST	-05:00:00	04/01/01 02:00:00	1
EDT	-04:00:00	10/28/01 02:00:00	0
EWI	-04:00:00	04/07/02 02:00:00	1
FPET	-04:00:00	10/27/02 02:00:00	0
NEW	-04:30:00	04/06/03 02:00:00	5
		10/26/03 02:00:00	0
		04/04/04 02:00:00	1
		10/31/04 02:00:00	0

Figure 6-6: Adding new GMT offsets

7 Monitor System Events

CHAPTER

Overview

Monitoring System Events covers how the system administrator can:

- Set system alerts for ServiceCenter Monitoring of system events (see *Monitor ServiceCenter System Events* on page 283).
 - Set up time intervals, so that registered queries being viewed will have the data automatically refreshed on a user's display (see *Automatic Refresh of Record List* on page 77).

Monitor ServiceCenter System Events

As a system administrator, you need to be aware of system events that could cause the system to perform poorly or become unstable. ServiceCenter includes a way for you to monitor these events without having to search for the messages within the log file.

To monitor system events and be proactive in making sure your system is running at its peak capacity, ServiceCenter monitors itself and creates an alert log that generates messages and directs your attention to how the system is performing.

The following databases and activity are monitored within ServiceCenter.

- P4 database
- SQL database
- Locked resources
- Virtual or shared storage

Defining the Alert Periodic Schedule Record

Certain aspects of the system monitoring activities that are done by ServiceCenter are too expensive to be done on a continuous basis. Therefore, you can set how often ServiceCenter will monitor itself by using the Scheduler to start the Alert Periodic application intermittently. Once the settings are defined, the application will periodically check the features to be monitored.

Set how often ServiceCenter will be monitored by updating the **Repeat Interval** field and **Application** field settings in the Alert Periodic schedule record. For example, if you set the **Repeat Interval** field at four hours, ServiceCenter will monitor itself every four hours to check on virtual memory consumption and the sizes of various queues. Use the following steps to define the settings.

Note: These steps are for Windows NT. They may be slightly different for other platforms.

To schedule the Alert Periodic application:

- 1 In the system administrator home menu, click the Toolkit tab.
- 2 Click **Database Manager**.
- 3 Enter **schedule** in the **Form** field of the Database Manager dialog box.
- 4 Press **Enter** or click **Search**.
- 5 Select **schedule** from the QBE list.
A blank Schedule File record is displayed.
- 6 Enter **Alert Periodic** in the **Name** field, and then click **Search**.

- 7 Update the **Repeat Interval** field values to reflect the frequency with which you would like alerts to be checked.

For example, if you want to have the alerts checked every four hours, set the time as:

04:00:00

- 8 If needed, update the **Application** field value to call the correct application:
us.alert.periodic
- 9 Click Save and exit.

Making Changes to the Alert Periodic Schedule Record

If you want to make changes to the frequency of how often ServiceCenter monitors itself, go back into the Alert Periodic schedule record and follow the steps in the previous procedure, setting the new frequency in the **Repeat Interval** field.

Setting System Alert Parameters in the Initialization (*sc.ini*) File

The system detects anomalies within the ServiceCenter environment by tracking certain system functions requested by the applications (for example, database and locking requests). Based upon the parameters set in the *sc.ini* file, the system administrator tracks system events. If an alert is generated for a system event that is not being tracked by the system administrator, the system administrator can set the **alertfilters** parameter in the Initialization file (*sc.ini* file) to tell the system to ignore the alert. For example, if an alert is being recorded and the system administrator determines that this alert is not detrimental to the system, the alertfilter can be used to cease the recording of the alert. After alerts have been analyzed and identified as not detrimental, they should be filtered. This keeps the alert log meaningful, as it only contains entries that require attention. See *Alert Parameters* on page 286 for descriptions of the alert parameters.

To make revisions in the server *sc.ini* file to include, exclude, or update alerts:

- 1 Go to the ServiceCenter Programs file directory.
- 2 Edit the *sc.ini* file with any text editor.

For example, on Windows NT, you can go to **Start>Programs>ServiceCenter>Init file** to open the *sc.ini* file with Notepad.

- 3 Add a new line to the parameter field.
Example: If you want to set an average CPU or memory limit that each user should not pass, set the parameter in the *sc.ini* file as follows:
 alertcpulimit:2
- 4 From the **File** menu, choose **Save**.
- 5 Exit Notepad.
- 6 Stop and restart ServiceCenter, so that the system changes will be recognized.

Set the following alert parameters as needed.

Alert Parameters

Alert Parameters	Descriptions
alertcpulimit:n (“n” represents the number you will set for average cpu usage limit)	The system determines if a user is consuming too much CPU by comparing the CPU used by each user with the CPU used by the average of all users. Most users should fall within one or two standard deviations from the average. The number provided by this parameter indicates the number of standard deviations that are acceptable. For example, alertcpulimit:2 indicates that all users within two standard deviations from the average are acceptable.
alrtdtqueuelimit:n (“n” represents the number of records)	Set the number of records that can reside in the ServiceCenter Distributed (SCD) data queue before causing an alert.

Alert Parameters	Descriptions
alertfilters:	<p>Set which alerts can be filtered out and go unreported in the error log. Specify a single alert list, or multiple alerts, by separating each alert with a semicolon. For a description of the alert categories, see <i>Alert Categories</i> on page 289.</p> <p>For example, to filter out all performance alerts, type:</p> <p style="padding-left: 40px;">alertfilters:Performance*</p> <p>To specify all mapping alerts and a long running query alert against the <i>contacts</i> file, type:</p> <p style="padding-left: 40px;">alertfilters:Mapping*;Performance-5-contacts</p> <p>If after evaluating an alert log and verifying that each performance-1 (full file scan) and performance-2 (partial key) query alert is not a problem, you can filter these out. Type:</p> <p style="padding-left: 40px;">alertfilters:performance-1*;performance-2*</p> <p>(Adding an asterisk (*) at the end specifies all alerts within that category.)</p>
alertholdlimit:n (“n” represents the amount of time, in milliseconds)	<p>A system lock is something that the system obtains when it is necessary to control access to a resource. For example, the IREXPRT indexes can only be updated by one process at a time, so if the <i>ir.probsummary</i> file is being updated, the system obtains a lock on that resource. Because locks are generally held for a short period of time, the alertholdlimit can be set to cause an alert when a lock is held for an excessive period of time.</p> <p>Set the amount of time, in milliseconds, that a lock can be held before it is considered an alert situation.</p> <p>Note: The alerts <i>alertholdlimit</i> and <i>alertwaitlimit</i> are closely related, as they both measure locks within the system. Holding a lock (<i>alertholdlimit</i>) for a long time is not necessarily a bad thing. However, waiting for a lock (<i>alertwaitlimit</i>) is generally something to be avoided.</p>
alertirqueuelimit:n (“n” represents the number of records)	<p>Set the number of records that can reside in the IR queue before causing an alert.</p>
alertlog:sc.name.log (“name” represents the log name)	<p>Set the file where alerts should be written, using the full path name. The default will be alert.log within the current directory, typically the RUN directory.</p>

Alert Parameters	Descriptions
alertquerylimit:n (“n” represents the amount of time, in milliseconds)	Set the amount of time, in milliseconds, that a query can execute before causing an alert.
alertsqueueelimit:n (“n” represents the number of records)	Set the number of records that can reside in the SQL Shadow queue before causing an alert.
alertvirtuallimit:n (“n” represents the amount of memory in kilobytes)	Set the amount of memory, in kilobytes, that can be used before causing an alert.
alertwaitlimit:n (“n” represents the amount of time, in milliseconds)	Set system wait time, in milliseconds, before causing an alert. This alert is probably more important than the alert controlled by the <i>alertholdlimit</i> parameter, because this alert indicates that clients are waiting for resources, which will cause their response time to suffer.

Note: The alerts *alertwaitlimit* and *alertholdlimit* are closely related, as they both measure locks within the system. Holding a lock (*alertholdlimit*) for a long time is not necessarily a bad thing. However, waiting for a lock (*alertwaitlimit*) is generally something to be avoided.

Message Log: Alert Categories and Descriptions

Based upon the frequency set by the system administrator, the system periodically checks system events, finds alerts, and then prints them in the alert log. Problem events, such as problem queries, SQL activity, timing, and system locks, are detected based on the alert parameters set in the *sc.ini* file and logged, so that the system administrator can identify the potential problems and become proactive in handling the outcome.

Alerts found within ServiceCenter are categorized, according to alert categories, and written to the log with an assigned number that identifies the type of alert that is being detected. For example, if a user has exceeded the specified CPU usage limit, an entry in the Limits category will appear in the log. See *Alert Categories* on page 289 for details of the alert categories and descriptions for each one.

Alerts written to the alert log have the following header in each line.

```
category-type-item
```

See *Alert Categories* on page 289 for definitions of the categories and types for each category, and indicate the cause for the alert. For example, if a lock on the dbdict file was held for a long period of time, the alert header would be:

```
performance-4-dbdict
```

Alert Categories

Alert Category	Descriptions
Limits-n (“n” represents the Limits alert number)	Limits-1 = P4 database pool is getting close to being full. The alert item is the pool number.
	Limits-2 = User has exceeded the virtual memory (<i>alertvirtuallimit</i>) threshold. The alert item is the name of the user.
	Limits-3 = User has exceeded the specified CPU usage limit (<i>alertcpulimit</i>). The alert item is the name of the user.
	Limits-4 = Shared memory is critically close to full.
Mapping-n (“n” represents the Mapping alert number)	Mapping-1 = Field is truncated and mapped in RC format. The alert item is the file name and the field name that was truncated.
	Mapping-2 = Duplicate mapping. Multiple ServiceCenter fields to a single SQL field. The alert item is the file name with the duplicate mapping. The alert text identifies the fields that are involved in the duplicate mapping.
	Mapping-3 = Query cannot be translated to SQL. The alert item is the file name. The alert text will identify the query and the function that cannot be translated into SQL.
	Mapping-4 = Field cannot be used in an SQL query, because of its data type. The alert item will be the file name and the field name.

Alert Category	Descriptions
Performance-n (“n” represents the Performance alert number)	<p>Performance-1 = Query is not keyed. A long running query limit will be issued when a query exceeds the specified <i>alertquerylimit</i>, or a limit has not been set. The alert is the name of the file that is the target of the query. Consider creating a key to satisfy the query to avoid performance problems in the future when the database grows.</p> <p>Performance-2 = Query is partially keyed. A long running query limit will be issued when a query exceeds the <i>alertquerylimit</i> or a limit has not been set. The alert is the name of the file that is the target of the query. Consider creating a key to satisfy the query to avoid performance problems in the future when the database grows.</p> <p>Performance-3 = System waiting for a long period of time. The system has been waiting and exceeded the specified (<i>alertwaitlimit</i>) limit. The alert item is the name of the lock.</p> <p>Performance-4 = A lock is held for a long period of time. A lock hold limit will be issued when it exceeds the specified (<i>alertholdlimit</i>) limit. Many conditions can cause a lock to be held for a long period of time, such as a client updating a ticket (which locks the ticket from the time it is opened until the time it is closed). The alert item is the name of the lock.</p> <p>Performance-5 = Long running query. A long running query limit will be issued when a query exceeds the specified (<i>alertquerylimit</i>) limit, or a limit has not been set. The alert is the name of the file that is the target of the query. Consider creating a key to satisfy the query to avoid performance problems in the future when the database grows.</p> <p>Performance-6 = The hit ratio for a query is a ratio of the number of records evaluated versus the number of records that are selected. Using a fully keyed query, the hit ratio is always 100%, because an index is used to select the records. With a partially keyed query, the hit ratio will vary based on the number of records that can be selected via the index (rather than requiring the record be retrieved and evaluated). A low hit ratio indicates that the system has to evaluate a lot of records to locate the records that are of interest to the current query. A hit ratio of 50% means that ServiceCenter evaluates and discards half of the records that have been checked. The default value for <i>alerthitratio</i> is 90%.</p>

Alert Category	Descriptions
Stalled-n (“n” represents the Stalled alert number)	<p>Stalled-1 = SCD dtqueue is stalled. The number of records in the dtqueue is growing in excess of the specified (<i>alrtdtqueueulimit</i>) limit.</p> <p>Stalled-2 = SQL sqlqueue is stalled. The number of records in the sqlqueue is growing in excess of the specified (<i>alertsqueueulimit</i>) limit.</p> <p>Stalled-3 = IR irqueue is stalled. The number of records in the irqueue is growing in excess of the specified (<i>alertirqueueulimit</i>) limit.</p> <p>Stalled-4 = SCD dtqueue is stopped. The first record in the dtqueue is not changing.</p> <p>Stalled-5 = SQL sqlqueue is stopped. The first record in the sqlqueue is not changing.</p> <p>Stalled-6 = IR irqueue is stopped. The first record in the irqueue is not changing.</p>

The first time an alert is detected within the system, it is entered into the log. Once the entry is made in the log, the system will keep track of how many times an alert has occurred within the last hour and then write a summary to the log, indicating the number of times the alert occurred since the last entry. See the following example messages in [Sample Error Messages](#) on page 292 that you can expect to see in the alert message log.

Example System Message

An example message for the hit ratio of a query:
 1976 01/22/01 10:33:18 Performance-6-application, Hit Ratio not achieved on file application and query (comments>”M”): Of 47179 records checked, 44643 did not match the query;user(FALCON), application(display),panel (show.rio)

Sample Error Messages

1496 02/21/2001 13:57:17 Performance-4-dbdict, Held resource (dbdict) for 150 milliseconds; user(N/A), application(Unknown), panel(Unknown)

2272 02/21/2001 14:02:48 Performance-5-scmessage, Query (syslanguage="en" and class="scgui") took 130 milliseconds to complete; user(N/A), application(login), panel(prompt.for.password)

2272 02/21/2001 14:02:55 Performance-4-code, Held resource (code) for 140 milliseconds; user(FALCON), application(ocml.setup.environment), panel(build.admin)

2272 02/21/2001 14:02:56 Performance-1-erdddef, Full File Scan for query (distributed=true); user(FALCON), application(syslog.add), panel(add.syslog)

2272 02/21/2001 14:02:57 Performance-5-mail, Query (user.to="FALCON" or user.to="broadcast") and status="sent" and date.to.send<= '01/21/2001 14:02:56') took 711 milliseconds to complete; user(FALCON), application(mail.check), panel(select.mail)

Message Log Switch

The log switch feature allows users to have the ServiceCenter log written to a new file on a scheduled basis. Switching the files will prevent any one log file from becoming too large to work with and allow archiving or deleting of old portions of the log. This is particularly useful for customers who run 24x7, and do not have downtime to make backups of the log and clear it. If you do not set up the log switch options, the log will not switch, but will just keep growing.

To invoke the log switch option, you must enter `numberoflogfiles:n` in `sc.ini`, where `n` = number of log files. See *Log Switch Parameter Definitions* on page 296 for more information.

The Log switch feature has two options:

- maximum log size
- log switch interval

You can set the maximum log size by entering `maxlogsize:n` in `sc.ini`, where `n` = maximum log size in bytes. See *Log Switch Parameter Definitions* on page 296 for more information.

You can set the log switch interval in the SC schedule file.

To set the log switch interval:

- 1 In the system administrator home menu, select the Toolkit tab.
- 2 Click **Database Manager**.
- 3 Enter **schedule** in the **Form** field of the Database Manager dialog box.
- 4 Press **Enter** or **Search**.
- 5 Select **schedule** from the QBE list.

A blank Schedule File record is displayed (Figure 7-1 on page 294).

ServiceCenter - [Search schedule Records]

File Edit View Format Options List Options Window Help

Back Search

Schedule File

Name: Class:
 Number: ID: Expiration:
 Status: Scheduled Class:
 Action Time:

Description | Strings | Numbers | Booleans / Times | Stacked Queries

Description:

Repeat Interval

Monthly
 Quarterly
 Semi-Annually
 Annually

Problem Status:
 Application:
 Query:

Ready overlay schedule.g(db.search) [S]

Figure 7-1: Schedule File

- 6 Enter Log Switch in the Name box.
- 7 Click Search.

The log switch record (Figure 7-2 on page 295) will appear with some data filled in.

The screenshot shows the ServiceCenter application window titled "ServiceCenter - [schedule: 1793492]". At the top is a menu bar (File, Edit, View, Format, Options, List Options, Window, Help) and a toolbar with icons for help, search, and navigation. Below the toolbar is a status bar with "OK", "Cancel", "Save", and "Delete" buttons. A table displays a single record:

ID	Name	Number	Expiration	Class
1793492	Log Switch		01/01/10 00:00:00	problem

Below the table is a "Schedule File" dialog box. It contains the following fields:

- Name: Log Switch
- Class: problem
- Number: (empty)
- ID: 1793492
- Expiration: 01/01/10 00:00:00
- Status: (empty)
- Scheduled Class: (empty)
- Action Time: (empty)

There are tabs for "Description", "Strings", "Numbers", "Booleans / Times", and "Stacked Queries". The "Description" tab is active, showing a large text area for the description and a "Repeat Interval" section with radio buttons for "Monthly" (checked), "Quarterly", "Semi-Annually", and "Annually". Other fields include "Problem Status", "Application" (us.switch.log), and "Query".

At the bottom of the dialog, it says "Selected line is row 1 of 1 records" and "overlay schedule.qbe.g [S]".

Figure 7-2: Log Switch

- 8 Change the expiration date to when you want to start the log switch. (mm/dd/yy hh:mm:ss)
- 9 Enter the frequency at which the log should be switched in the **Repeat Interval** field. (mm/dd/yy hh:mm:ss)

Note: The other fields in the schedule record do not apply to the log switch, or should not be changed.
- 10 Click Save and exit.

Log Switch Parameter Definitions

Parameter	Definition
<code>numberoflogfiles:n</code>	<p>Mandatory. n = number of log files, Minimum =1, Maximum =7. When the log reaches the maxlogsize, or when the log switch interval has been reached, the active log will be renamed log 1, and a new empty log will be started. The next time the active log reaches the maxlogsize, or when the log switch interval has been reached, the active log will be renamed log 2, and so on, until the log number has equaled n. At that point the active log will be renamed log 1 again. And so on. This parameter is set in sc.ini.</p> <p>Note: You must set this parameter on the server.</p>
<code>maxlogsize:n</code>	<p>Optional. n = maximum log size in bytes, default size = 5000. A new log will be created when the current one reaches this size, no matter what the log switch interval is. This parameter is set in sc.ini. This parameter will have no effect unless the <code>numberoflogfiles</code> parameter is displayed in sc.ini.</p> <p>Note: You must set this parameter on the server.</p>
<code>log switch interval</code>	<p>Optional. A new log will be created after this interval, no matter what the current log size is. This parameter is set in the ServiceCenter Schedule file. This option is not active unless the <code>numberoflogfiles</code> parameter is displayed in sc.ini.</p>

8

Mandanten Database Protection

CHAPTER

Overview

ServiceCenter's Mandanten feature protects records of multiple clients by logically separating a shared database. Clients see only the data they are allowed to share. Further discrimination of rights can be applied within client groups, allowing system administrators to conceal department records selectively within an organization. For example, finance department records may still be accessed by the finance group but not by the marketing group.

Unlike Format Control, which provides security at the application layer, the Mandanten feature operates at the database layer. Restrictions on data are invisible to the applications, and protection is achieved without regard to the application design.

As you go through this chapter, you will learn how to:

- Define Security Groups and determine names in the Operator record.
- Define Mandanten values in the Database Manager.
- Sequence the range of values that can be excluded.
- Define the file and Mandant field.
- Create virtual join fields.
- Create a Mandant field.
- Create a restricting query.
- Create a shared Mandanten.
- Activate the Mandanten Protection feature.
- Construct a query, using an index.

How Mandanten Protection Works

The Mandanten feature allows a system administrator to establish lists of field values (of type *character*) for disparate customers using the same database. These values are assigned to Security Groups named in an operator record and then associated with a *Mandant field* in a ServiceCenter file that is to be protected.

When a user logs on to ServiceCenter, the system establishes an access list of values at the database layer. Only those records containing defined Mandant Field values can be viewed by the user.

Excluded Files

-
- Warning:** 1. Do not attempt to protect fields in an operator record; the named user will be unable to log on to ServiceCenter.
2. Do not attempt to apply Mandanten protection to the following system files: `formatctrl`, `format`, `link`, `code`, `tzfile`, `menu`, `environment`, and `dbdict`.
-

Mandanten Structure

Mandanten protection is managed by four elements in the database:

- Security Groups array
- `scsecurity` file
- `scmandant` file
- `scaccess` file

Security Groups

Access to protected fields—those fields whose values are protected—is controlled from a tab in the Operator record called Security Groups. Groups named here determine which Mandanten values are available to the user. Shared ownership of records can be defined by naming several Security Groups for a single operator.

The `scsecurity` File

Lists of values are defined in the `scsecuritygroup` file and associated with the name of a Security Group. You may create lists of included values and those values (usually hierarchical) you want to exclude.

The `scmandant` File

Specific files are marked for Mandanten protection in the `scmandant` file. The Mandant (protected) field for that file is defined here as well. You may also create a virtual join with the same field in a second file if the data for your Mandant field is contained in that second file.

The `scaccess` File

The `scaccess` file allows you to format Mandanten values as restricting queries allowing for a deeper layer of protection within a Security Group. For example, a user might see only those incident tickets he or she owns that are in Alert Stage 3.

Mandanten Workflow

The Mandanten files (*scsecurity*, *scmandant*, and *scaccess*) create a Mandanten *filter*. When a user who is a member of a Security Group queries the database, the system uses this filter to extract the appropriate *data subset* from the database and return it to the user.

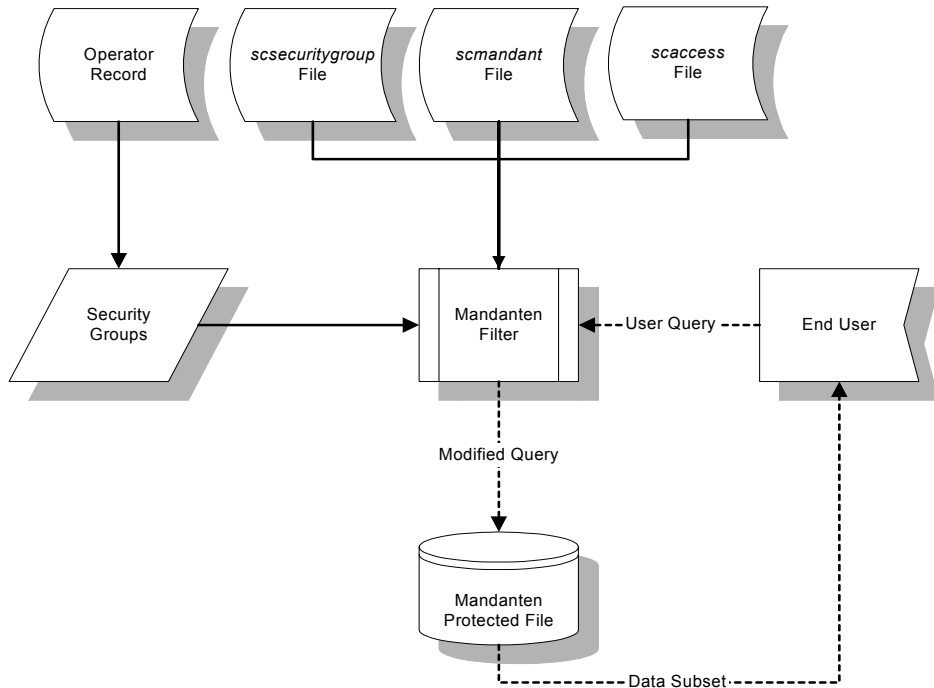


Figure 8-1: Mandanten workflow

Protecting a File

Mandanten protection works on any file in ServiceCenter; however, certain files make more sense to protect than others. For example, device records and incident tickets might require increased security on a system where different organizations share the same database.

A system administrator may select an existing field to protect or may create a specific Mandant field for the purposes of protecting client files. Shared ownership may be desirable, particularly when assigning rights to system administrators.

To establish Mandanten protection for a file, perform the following procedures:

- 1 Pick an appropriate field to use to protect client data. You may select an existing field or create one specifically for that purpose. The field must be of the data type *character*.
- 2 Name your Security Groups in the Operator record.
- 3 Define Mandanten values in the `scsecurity` file.
- 4 Name the file to be protected and the Mandant field using the `scmandant` file.
- 5 Create any restricting queries for the values listed using the `scaccess` file.

Selecting a Field

As one possible example, you might choose to protect the **Location** field in the `device` file. The value in this field reflects the physical location of equipment, typically in the same location as a related client or department. To discriminate the level of protection further, the **Network Name** field could be used to define a restricting query. When the user queries the database for device file records, only those devices from a prescribed location and network are presented.

Defining Security Groups

Determine names for your Security Groups in the Operator record. Use meaningful names that a system administrator responsible for managing a shared database can recognize. For example, if you have chosen to protect the **Location** field in the `device` file, you may want to create Security Groups that reflects your client's physical location (for example, Atlanta, Dallas, and so on), or simply use a company name.

To name Security Groups:

- 1 In the system administrator's home menu, click the Utilities tab.
- 2 Click **Administration**.

The Administration menu is displayed.

3 Click Operators.

A blank operator record form is displayed.



4 Click Search or press Enter.

5 Select an operator or template from the record list displayed (Figure 8-2 on page 302).

The screenshot shows the ServiceCenter application window titled "ServiceCenter - [Operator: BOB.HELPDESK]". The window contains a menu bar (File, Edit, View, Format, Options, List Options, Window, Help), a toolbar with various icons, and a list of operators. The list has columns for Login Name, Full Name, Phone, and Printer. The selected operator is BOB.HELPDESK with Full Name HELPDESK, BOB and Phone (858) 481-5000. Below the list is the "Operator Record" form with tabs for General, Security, Login/Contact Profiles, Startup, Notification, Security Groups, and Billing Information. The General tab is active, showing fields for Login Name (BOB.HELPDESK), Full Name (HELPDESK, BOB), Language (English), Default Company (PRGN), Date Information (Time Zone, Format), Time Limits (Database, Asset Mgmt, Change Mgmt), Application Profile (User Role, Service Profile, Incident Profile, Root Cause Profile, Inventory Profile, Contract Profile, Change Profiles), and Request Profiles.

Login Name	Full Name	Phone	Printer
BOB.HELPDESK	HELPDESK, BOB	(858) 481-5000	

Operator Record

General | Security | Login/Contact Profiles | Startup | Notification | Security Groups | Billing Information

Login Name: BOB.HELPDESK Full Name: HELPDESK, BOB
 Language: English Default Company: PRGN

Date Information
 Time Zone: Application Profile
 Format: User Role: HELPDESK TECH LEV
 Service Profile: HELPDESK TECH
 Incident Profile: HELPDESK TECH
 Root Cause Profile: TECH
 Inventory Profile: INITIATOR
 Contract Profile: DEFAULT
 Change Profiles: INITIATOR
 Request Profiles: REQUESTOR

Database: 00:00:10
 Asset Mgmt: 00:00:10
 Change Mgmt: 00:00:10

Ready insert operator.qbe.g [S]

Figure 8-2: QBE list of operators

- 6 Select the Security Groups tab in the operator record form (Figure 8-3 on page 303).

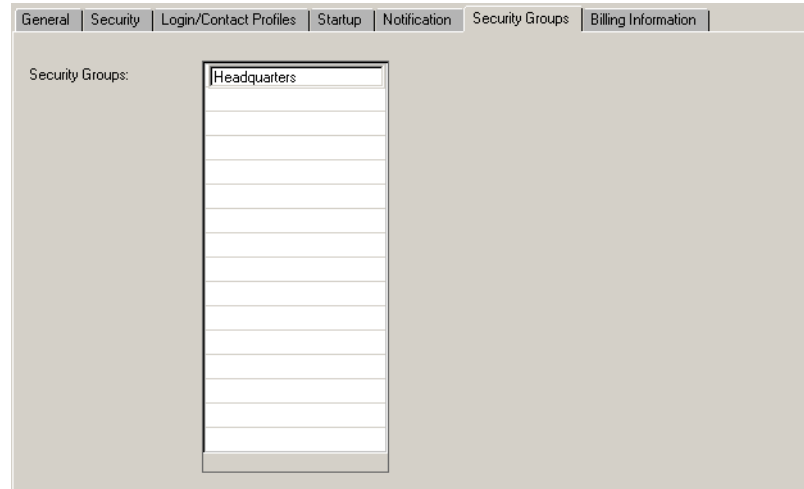
The image shows a screenshot of a web-based operator record form. At the top, there is a horizontal navigation bar with several tabs: 'General', 'Security', 'Login/Contact Profiles', 'Startup', 'Notification', 'Security Groups', and 'Billing Information'. The 'Security Groups' tab is currently selected. Below the navigation bar, the main content area is titled 'Security Groups:'. It features a vertical list box with a scroll bar on the right. The first item in the list is 'Headquarters', which is highlighted. The rest of the list is empty.

Figure 8-3: Security Groups in the operator record

- 7 Enter the name of the Security Group(s) in which that user is a member. In this example, BOB.HELPDESK is a member of a Security Group called **Headquarters**.

Note: You may enter an array of groups in this field if the user has the right to share records from other Security Groups.

- 8 Click **Save**.

A message appears saying *Operator record updated*.

Defining Mandanten Values

Mandanten values are defined in the `scsecurity` file. You may list as many values as you wish. The system returns only those records whose Mandant field values match the entries in the **Included Values** field of this record.

To gain access to the Mandanten tab through the Central Administration Utilities:

- ▶ If you are familiar with the Central Administration Utilities, you may access the Mandanten tab through use of these utilities. For more information on accessing and using the Central Administration Utilities, please refer to *User Access and Security Control* on page 131 and see the discussion about *Central Administration Utilities* on page 142.

To define the Mandanten values:

- 1 In the system administrator's home menu, click the Toolkit tab.
- 2 Click Database Manager.
- 3 Enter `scsecurity` in the **Form** field of the Database Manager dialog box (Figure 8-4 on page 304).

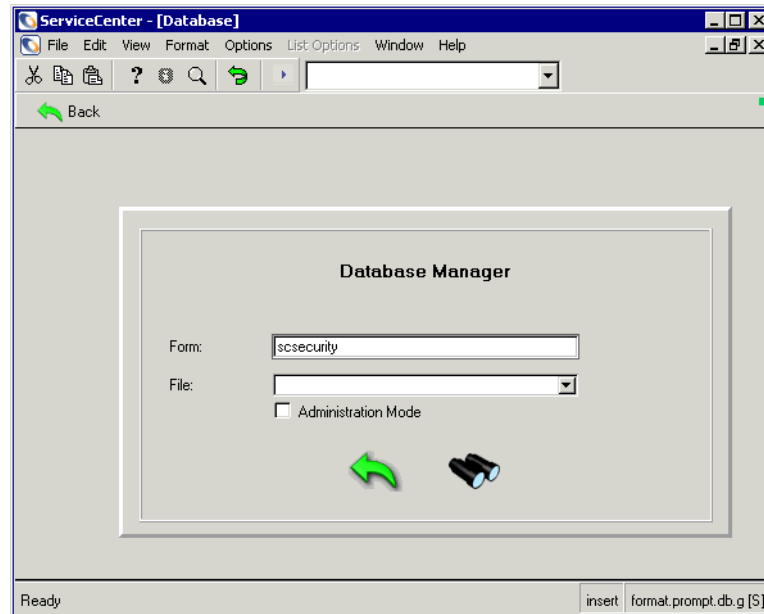


Figure 8-4: Database Manager dialog box

4 Click **Search** or press **Enter**.

A blank Security Group record is displayed.

5 Enter the name of your Security Group in the **Security ID** field (for example, Headquarters).

6 Enter all field values in the records to be displayed to the user in the **Include Value List**.

In this example, we want to display only the records for devices belonging to PRGN.

Note: These are case-sensitive values. Be sure the case of the value in the `scsecurity` file matches that of the value in the device records.

7 Enter values you want to exclude in the **Exclude Value List**.

This field is used when the Mandanten values have a hierarchical structure with broad values. A certain sequence within the range of values can be excluded, as in the case of a large organization using location codes as Mandanten values.

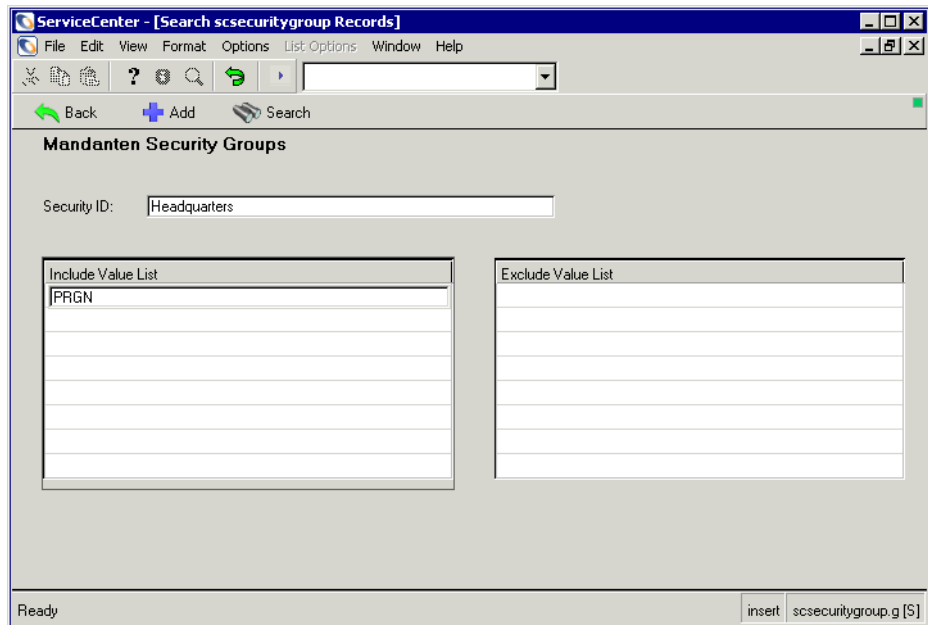


Figure 8-5: Mandant Field values defined in a security group record

8 Click **Add** to add the record to the database.

The following message displays in the status bar: *scsecuritygroup record added.*

Wild Cards

You can use an asterisk (*) as a *wild card* to define the entire range of a value list (Figure 8-6 on page 307). If a large organization has several major divisions, records for all divisions can be included by entering a single value delimited by an asterisk.

For example, let us suppose that an organization has four principal divisions. The wild card searches for these values in the **Mandant Field Name** field:

- PRGN A
- PRGN B
- PRGN C
- PRGN D

As system administrator, you can make the records for *all* the PRGN divisions available to the Headquarters security group by entering PRGN* in the **Include Value List**.

Perhaps the *PRGN C* division is the financial unit of the organization, and their records need to be protected from access by the other three divisions. In this case, simply enter *PRGN C* in the **Exclude Value List** to make the financial records inaccessible to the Headquarters security group.

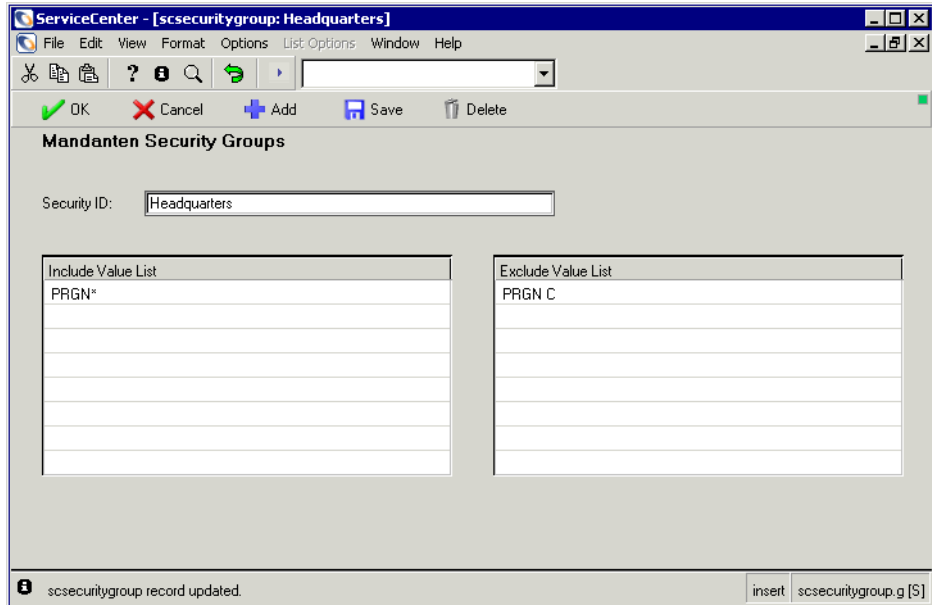


Figure 8-6: Value Range defined with a wild card

To make the *PRGN C* records visible to the financial division, create an *scsecurity* record that defines a new security group (for example, Financial) with *PRGN C* entered in the **Include ValueList**.

Defining the File and Mandant Field

Name the file you want to protect and name a Mandant field in the *scmandant* file (Figure 8-7 on page 309). Only one Mandant field can be associated with a file. You must use the linking feature in the *scmandant* file if the data for your Mandant field is contained in a file other than the file you are protecting (for example, a file virtually joined to another).

Virtual Join Fields

Field	Description
Linkage Field Name	Name of the Mandant field that you want to link to a second file.
Source File Name	Virtually joined source file in which the data for your Mandant field is stored.
Source Field Name	Name of the field in the source file containing the specified Mandanten values.
Exclude Field	Record by record exclusion list that is rarely used. This field uses the same criteria as the Exclude Values List in the scsecurity file.

Creating Records

To gain access to the Mandanten tab through the Central Administration Utilities:

- ▶ If you are familiar with the Central Administration Utilities, you may access the Mandanten tab through use of these utilities. For more information on accessing and using the Central Administration Utilities, please refer to *User Access and Security Control* on page 131 and see the discussion about *Central Administration Utilities* on page 142.

To create a Mandant field:

- 1 In the system administrator's home menu, click the Toolkit tab.
- 2 Click **Database Manager**.
- 3 Enter scmandant in the **Form** field of the Database Manager dialog box.
- 4 Click **Search** or press **Enter**.
A blank Mandant field record is displayed.
- 5 Enter the name of the file you want to protect in the **File Name** field.

In this example, we want to protect the device file.

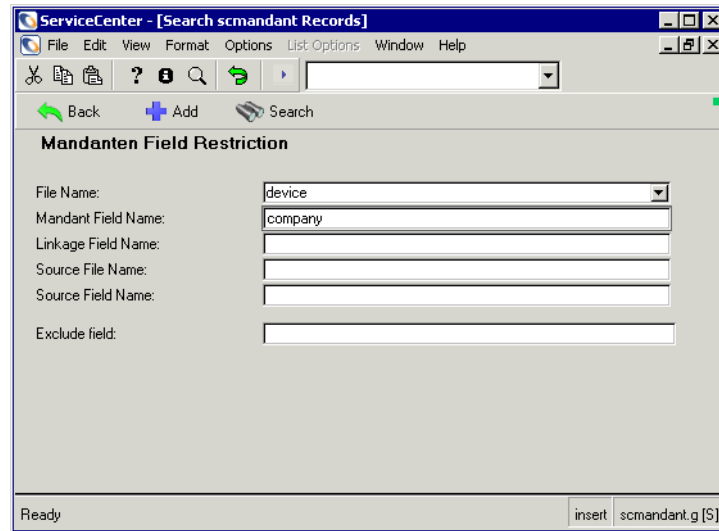


Figure 8-7: Mandant Field record

- 6 Enter the name of the Mandant field in the **Mandant Field Name** field.

In this example, we have selected **company** as our Mandant field.

Note: The value in this field needs to match the type of data in the Include or Exclude Value lists.

- 7 Click **Add** to add the record to the database.

The following message is displayed in the status bar: *scmandant record added.*

Creating a Restricting Query

The `scaccess` file allows you to format Mandanten values as a restricting query (Figure 8-8 on page 310). For example, you can write a query to restrict a user's access to records for those devices he owns that are part of a specific network and no others.

Note: This is an optional layer of security. It is used in addition to the normal Mandanten field protection.

To create a restricting query:

- 1 In the system administrator's home menu, click the Toolkit tab.
- 2 Click **Database Manager**.
- 3 Enter `scaccess` in the **Form** field of the Database Manager dialog box.
- 4 Click **Search** or press **Enter**.
A restricting query record is displayed.
- 5 Enter the name of the file you want to protect in the **File Name** field.
In this example, we are protecting the device file.

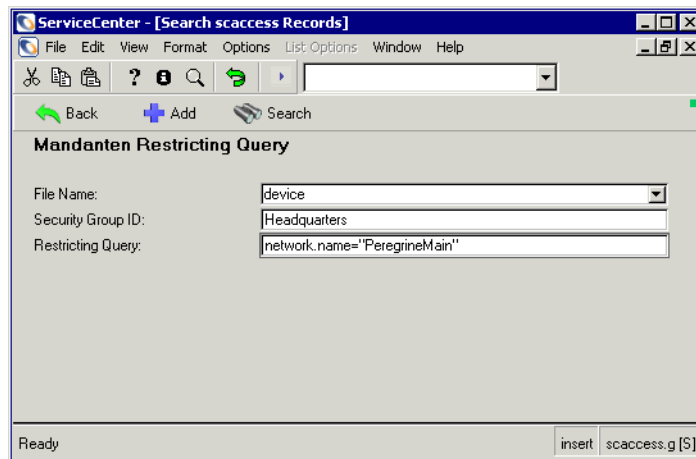


Figure 8-8: Restricting Query record

- 6 Enter the name of the Security Group associated with the file being protected in the **Security Group ID** field.
In this example, our Security Group is **Headquarters**. This is the name of a Security Group you named in the operator record.
- 7 Create a query in the **Restricting Query** field to select specific kinds of records belonging to the user.
In this example, the query `network.name="PeregrineMain"` allows a user to see only those devices in the main Peregrine network.
- 8 Click **Add** to add the record to the database.
The following message is displayed in the status bar: *scaccess record added.*

Shared Mandanten

In the most common usage of the Mandanten feature, individual records in a segmented database are owned by particular clients. There are, however, cases when a record is *shared* within a segmented database between the clients. An example might be the Incident Management categories or assignment lists. More than one client may want a hardware category. Rather than defining categories of hardware-A and hardware-B, it is possible to define a single category of hardware and to indicate that client A and client B share the category. This is accomplished by defining an array within the file that lists the clients that can share the record. Any user who has at least one value in their access list that matches one of the values in the array will be given access to the record.

Quite often Mandanten values have an internal hierarchy—for example:

- Peregrine-East
- Peregrine-West
- Peregrine-West-Development
- Peregrine-West-Financial
- Peregrine-West-Sales
- Peregrine-North

To ease the maintenance of the Mandanten access lists, it is possible to use a wild card character (*) in the Mandanten values. A user could be given access to all Peregrine records with a single entry of **Peregrine***. To make the wildcard usable, however, there must be a list to which a user is denied access. Therefore, if users should have access to all Peregrine data except Peregrine Financial data, the access list would contain **Peregrine***, and the denied list would contain **Peregrine-West-F***.

The wildcards ease maintenance; however, when the *shared* Mandanten feature is used against a large database and the user query being made does little to exclude the number of records that apply, there can be a performance problem. This occurs because each record must be selected and analyzed to see if the include/exclude arrays within the record match the array of include and exclude values that are defined for the user. Because this analysis is going against four arrays and any of these arrays may contain the wildcard character, it is not possible to modify the original query such that an index can be used to select the records (as is done with standard Mandanten queries).

Initialization Parameter

The shared Mandanten feature is activated by adding the parameter `sharedmandantquery` to the server initialization (`sc.ini`) file. ServiceCenter server processes check for the `sharedmandantquery` parameter, and if it is present, the query entered by the user will be modified to contain the Mandanten filter specifications.

Constructing the Query

If we are told that wildcard characters are not used, a query can be constructed which uses an index. Therefore, `sharedmandantquery` tells the system to modify the query when going against shared Mandanten files in the same way we modify the queries when going against standard Mandanten files. With a modified query, the search engine (P4 or SQL) will be able to use an index to satisfy the query.

Using the internal hierarchy list shown earlier, an example of a modified query would be one with the appended phrase:

```
<user query> And mandant.file isin {"Peregrine-East",  
  "Peregrine-West","Peregrine-West-Development", "Peregrine-West-Financial",  
  "Peregrine-West-Sales", "Peregrine-North"}
```

The modified search allows the search engine to find the records that qualify, as long as the `Mandant` field is defined as part of the key. For SQL, the `Mandant` field array must be mapped as a multi-row array, which happens automatically for any key field.

A

APPENDIX

Command Line Prompt Calls

This appendix provides lists of both generic and direct prompt calls that you can enter from the ServiceCenter command line, including the RAD application that each command calls and each command's function.

Generic Prompt Calls

Command	RAD Application Called	Function
*a<application name>	as specified	Runs the specified RAD routine. Example: *adatabase accesses Database Manager.
*f<file name>	database	Accesses a specified file. Example: *fcontacts accesses the contacts file.
*m<menu name>	menu.manager	Changes to a specific menu. Example: *mCM3 accesses the Change Management menu.
*q<query name>	query.stored	Runs a stored query. Example: *qcm3r.user.all accesses a list of your change requests.

Command	RAD Application Called	Function
*s<script name>	script.execute	Runs the specified script. Example: *socmq.open.hr.quote opens an HR Request ticket.
#<shortcut name>	non-applicable	Queries for a list of shortcut commands. Example: #do brings up a list of all commands that start with “do.”

Direct Prompt Calls

Command	RAD Application Called	Function
about	bulletin.key	Displays the system bulletin and any active “hot” incidents.
admin	menu.manager	Displays the text-based System Administrator menu.
ag	encl.appl	Displays the RAD Editor prompt (formerly known as Application Generator).
agcompare	compare.applications	Displays the RAD Application Comparison form.
agentrev	query.stored	Executes the “agentrev” query which displays a list of the schedule records for all SCAuto agents.
agentstat	scauto.check.setup	Displays a form allowing for options to ststop currently-available SCAuto agents.
agmap	agmap.sched	Displays the Application Mapping form.
agr	report.exerciser	Executes the “OPEN PROBLEM ANALYSIS REPORTS - ASSIGNMENT GROUP” report via Report Exerciser.
alert	database	Displays the Alert Definition form.

Command	RAD Application Called	Function
alertdefs	se.search.engine	Displays the Alert Definition form.
alertlogs	se.search.engine	Displays the Alert Log form.
am	menu.manager	Displays the text-based Administration menu.
appr	database	Displays the Approval Definition form.
approvaldefs	se.search.engine	Displays the Approval Definition form.
approvallogs	se.search.engine	Displays the Approval Log form.
asgnlist	report.exerciser	Executes the “assignment group listing” report via Report Exerciser.
asr	report.exerciser	Executes the “ALERT STATUS REPORT” report via Report Exerciser.
assign	problem.management	Displays the Assignment Groups form.
audit	menu.manager	Displays the text-based Audit menu.
auditdelta	audit.unload.front	Displays the form for unloading an Audit Delta.
audithist	database	Displays the Audit History form.
auditonoff	database	Displays the Audit Control form.
auditlog	database	Displays the Audit Log form.
audspec	database	Displays the Audit Specification Table form.
autoshut	database	Displays the Automatic Shutdown Information form.
back	menu.manager	Initiates an action that backs out of the current form and displays the text-based Main menu.
bm	database	Displays the form for accessing Benchmark field information.
bmconfig	database	Displays the Benchmark Configuration Record form.

Command	RAD Application Called	Function
bmparms	database	Displays the Benchmark Parameters form.
bulletin	database	Displays the System Bulletin form.
caldaily	database	Displays the Calendar Event Add/Edit form.
caldefs	menu.manager	Displays the text-based Calendar menu.
calduty	database	Displays the Normal Working Hours form.
calholiday	database	Displays the Holiday Names form.
call	exercise	Displays the Application Exerciser form for testing/running a RAD application directly.
callqueue	sc.setup.manage	Displays the Call queue.
category	database	Displays the Category form for Service Management.
catlist	report.exerciser	Executes the “category listing” report via Report Exerciser.
cau	menu.manager	Displays the Central Administration Utilities menu.
cc	menu.manager	Displays the text-based Service Management menu.
chgqueue	sc.setup.manage	Displays the Change queue.
clavail	availability.clear	Allows for the clearing of availability information.
cls	pm.access	Displays the Incident queue.
cm3	menu.manager	Displays the text-based CM3 Main menu.
cm3grp	database	Displays the Change Management Groups Definition form.
cm3maint	menu.manager	Displays the text-based CM3 Maintenance menu.
cm3msg	database	Displays Change Management Event Definition form.

Command	RAD Application Called	Function
cm3profile	database	Displays the CM Security Profile form.
cm3r	se.search.engine	Displays the search form for Change Management requests.
cm3rcat	cm3r.category.maint	Displays the Change Management Request Category form.
cm3renv	se.search.engine	Displays the Change Management Application Environment form.
cm3ropen	cmc.open.from.menu	Initiates the script for opening a new change request ticket.
cm3rpt1	report.exerciser	Executes the "All Requests Planned to Start Within the Next 30 Days" report via Report Exerciser.
cm3rpt10	report.exerciser	Executes the "Summary Manhour and Leadtime Totals by Request Group" report via Report Exerciser.
cm3rpt2	report.exerciser	Executes the "Aging Totals by Business Area" report via Report Exerciser.
cm3rpt4	report.exerciser	Executes the "Summary Manhour and Leadtime Totals by Category" report via Report Exerciser.
cm3rpt5	report.exerciser	Executes the "Summary Manhour and Leadtime Totals by Assignment Group" report via Report Exerciser.
cm3rpt6	report.exerciser	Executes the "Summary Manhour and Leadtime Totals by Request Group" report via Report Exerciser.
cm3rpt7	report.exerciser	Executes the "Aging Totals by Business Area" report via Report Exerciser.
cm3rpt8	report.exerciser	Executes the "Summary Manhour and Leadtime Totals by Category" report via Report Exerciser.

Command	RAD Application Called	Function
cm3rpt9	report.exerciser	Executes the “Summary Manhour and Leadtime Totals by Assignment Group” report via Report Exerciser.
cm3rpts	menu.manager	Displays the text-based CM3 Reports menu.
cm3t	se.search.engine	Displays the search form for Change Management tasks.
cm3tcat	cm3t.category.maint	Displays the Change Management Task Category form.
cm3tenv	se.search.engine	Displays the Change Management Application Environment form.
cm3topen	cmt.open.from.menu	Initiates the script for opening a new change task.
cm3upg1	report.exerciser	Executes the “Compare and Report DBDICT” report via Report Exerciser.
cm3upg2	report.exerciser	Executes the “Compare and Report cm3t DBDICT” report via Report Exerciser.
cm3upg5	report.exerciser	Executes the “Convert CM2 Capability Words” report via Report Exerciser.
cmcontrol	cm.edit.config	Displays the Change Management Control form.
cmdlist	report.exerciser	Executes the Menu Command List report via Report Exerciser.
cmsla	database	Displays the Change Management SLA form.
commlst	report.exerciser	Executes the “communications listing” report via Report Exerciser.
commtype	database	Displays the Communication Type form.
commun	database	Displays the attribute form for the Communications device type.

Command	RAD Application Called	Function
comp	se.search.engine	Displays the System Information Definition form (system Company record).
compare	compare.applications	Displays the RAD Application Comparison form.
configure sla	sla.edit.config	Displays the Service Level Agreement Control form.
contacts	database	Displays the Contacts form.
contract	menu.manager	Displays the text-based Contract Management menu.
copyfile	copy.database.file	Initiates the script for copying a database file.
costcncr	database	Displays the SAP Cost Center form.
cpnycode	database	Displays the Company Codes form.
createcat	create category	Initiates the script for adding an Incident Management category.
createschd	database	Displays the Schedule form.
curalerts	se.search.engine	Displays a list of the current alerts.
curapprovals	se.search.engine	Displays a list of the current requests awaiting approval.
curconvert	database	Displays the Currency Rate Information form.
currency	database	Displays the Currency form.
datamap	database	Displays the Data Map form.
db	database	Displays the Database Manager prompt.
dbdict	dbdict.utility database	Displays the Database Dictionary prompt.
de	database	Displays the Display Application Event Definition form.
delmail	database	Displays the form for sending internal ServiceCenter broadcast mail.

Command	RAD Application Called	Function
device	icm.access	Displays the Asset Information form.
devloc	report.exerciser	Executes the “INVENTORY LISTING BY LOCATION” report via Report Exerciser.
devrpt	report.exerciser	Executes the “DEVICE LISTING” report via Report Exerciser.
devtype	icm.create.device	Displays the Inventory Device Types form.
devvend	report.exerciser	Executes the “INVENTORY LISTING BY VENDOR” report via Report Exerciser.
directory	report.exerciser	Executes the “USER DIRECTORY” report via Report Exerciser.
dist	database	Displays the Distribution Group form.
dmrpts	menu.manager	Displays the text-based Doc Management Analysis Reports menu.
do	database	Displays the Display Application Option Definition form.
doc	menu.manager	Displays the menu with options for maintaining the document engine.
drc	report.exerciser	Executes the “OPEN PROBLEM ANALYSIS REPORT - CATEGORY” report via Report Exerciser.
ds	database	Displays the Display Application Screen Definition form.
dtqueue	database	Displays the distributed ticketing queue form.
dtrace	report.exerciser	Executes the “Downstream Devices” report via Report Exerciser.

Command	RAD Application Called	Function
dtshad	database	Displays the distributed ticketing shadow form.
edit gkn	database	Displays the form for editing core knowledge.
enduser	database	Displays the attribute form for the Enduser device type.
enduserlst	report.exerciser	Executes the “enduser listing” report via Report Exerciser.
entitle	database	Displays the Service Entitlement form.
erp	menu.manager	Displays the text-based ERP menu.
err	report.exerciser	Executes the “EXCESSIVE REASSIGNMENT REPORT” report via Report Exerciser.
es	menu.manager	Displays the text-based Event Services menu.
esadmin	menu.manager	Displays the text-based Event Services Administration menu.
evemail	sca.window	Displays the form for sending an email event.
eventbld	axces.build.maps	Initiates the wizard for building event mappings.
eventfltr	database	Displays the Event Filters form.
eventin	database	Displays the Event Services input queue.
eventmap	database	Displays the Event Map form.
eventout	database	Displays the Event Services output queue.
eventreg	database	Displays the Event Registration form.
evfax	sca.window	Displays the form for sending a fax event.
evicmbld	scauto.build.maps	Initiates a script for building ICM mappings.

Command	RAD Application Called	Function
evpage	axces.page.window	Displays the form for sending a paging event.
evwrite	sca.window	Displays the form for sending an incident, inventory, or generic event.
exceedcall	query.stored	Executes the “overcall contracts” query which displays a list of all service contracts that have exceeded their call allocation.
exceedim	query.stored	Executes the “overproblem contracts” query which displays a list of all service contracts that have exceeded their problem allocation.
expired	query.stored	Executes the “expired contracts” query which displays a list of all service contracts that have expired.
expline	database	Displays the Expense Line Information form.
faxinfo	database	Displays the Fax Configuration form.
fc	format.ctrl.maint	Displays the Format Control form.
fd	forms.designer	Displays the Forms Designer prompt.
fep	database	Displays the attribute form for the Frontend device type.
fep1st	report.exerciser	Executes the “front end processor listing” report via Report Exerciser.
files	database	Displays the Configuration File form for database unloads.
fixed	database	Displays the Fixed Function Keys for 327x Terminals form.
formatctrl	format.ctrl.maint	Displays the Format Control form.
formofad	database	Displays the Form of Address form.
forms	forms.designer	Displays the Forms Designer prompt.

Command	RAD Application Called	Function
from sql	pmc.sql.unfront	Initiates the process for bringing data from an RDBMS database to P4.
gen core	ke.gencore.verify	Displays the prompt for generating the core Knowledge Base.
gl	database	Displays the global list form.
hardware	menu.manager	Displays the text-based Hardware Configuration menu.
hd	pm.access	Displays the Incident queue.
help	database	Displays the Help form.
hfield	database	Displays the text-based help field form.
History	query.stored	Displays aging results for SLA on bar graphs.
Home	menu.manager	Displays the Main menu.
host	database	Displays the attribute form for the Host device type.
hostdev	database	Displays the attribute form for the Host Devices device type.
hostdevlst	report.exerciser	Executes the “host peripherals listing” report via Report Exerciser.
hostlst	report.exerciser	Executes the “host listing” report via Report Exerciser.
hrcontacts	erp.request.batch	Displays the prompt for importing PeopleSoft HR data.
hrimport	erp.request.batch	Displays the prompt for importing PeopleSoft HR data.
hrsupport	database	Displays the States form.
htopic	database	Displays the Help form.
icm	menu.manager	Displays the text-based Inventory Management menu.
icmappenv	database	Displays the Asset Management Application Environment form.

Command	RAD Application Called	Function
icmconvert	icm.convert.files	Displays the link record for building inventory records during the upgrade process.
icmenv	menu.manager	Displays the text-based Inventory Management menu.
icmgroups	database	Displays the Inventory Management Groups form.
icmprofile	database	Displays the Inventory Security Profile form.
icmreports	menu.manager	Displays the text-based Inventory Management Reports menu.
im	menu.manager	Displays the text-based Incident Management menu.
im admin	menu.manager	Displays the text-based Incident Management Environment menu.
imapplenv	database	Displays the Incident Management Environment form.
imassign	database	Displays the Assignment Groups form.
imbuild	pm.build.probsubm	Initiates the script for the building of probsummary records.
imconvert	pm.convert.format	Displays the Convert Incident Format form.
imgroups	database	Displays the Incident Management Groups form.
imm	menu.manager	Displays the text-based Incident Management menu.
improfile	database	Displays the IM Security Profile form.
imreset	pm.clear.downtime	Allows for the clearing of availability information.
inact	kill.inactive.setup	Displays the Kill Inactive Users Setup Parameters form.
incident	menu.manager	Displays the text-based Incident Management menu.
incidentqueue	sc.setup.manage	Displays the Incident queue.

Command	RAD Application Called	Function
info	database	Displays the Agent Initialization Registry form.
inventory	menu.manager	Displays the text-based Inventory Management menu.
invlist	database	Displays the text-based Inv/Config Management Listings menu.
irassg	report.exerciser	Executes the “Problem Response Analysis By Assignment” report via Report Exerciser.
ircomp	report.exerciser	Executes the “Problem Response Analysis By Component” report via Report Exerciser.
irloc	report.exerciser	Executes the Problem Response Analysis By Location” report via Report Exerciser.
irq	ir.query.window	Displays the form for issuing an IR query.
irvend	report.exerciser	Executes the “Problem Response Analysis By Vendor” report via Report Exerciser.
jesptrs	database	Displays the Configuration File form for jes.
ke	menu.manager	Displays the text-based Knowledge Engineering menu.
knowledge	sc.knowledge	Displays the search form for Knowledge Base information.
line	database	Displays the attribute form for the Line device type.
linelst	report.exerciser	Executes the “line listing” report via Report Exerciser.
link	edit.link	Displays the Link form.
linklist	report.exerciser	Executes the Link File Listing report via Report Exerciser.
load transfer	apm.upgrade.load.transfer	Initiates the ServiceCenter Upgrade Utility Load Transfer form.

Command	RAD Application Called	Function
loc	database	Displays the Location form.
location	database	Displays the Location form.
loclist	report.exerciser	Executes the “location listing” report via Report Exerciser.
loclst	report.exerciser	Executes the “location listing” report via Report Exerciser.
logmsg	database	Displays the “log” type Message Class form.
Logoff	menu.manager	Logs out of the session completely.
logoff	menu.manager	Displays the text-based Logoff prompt.
Logout	menu.manager	Displays the Logout prompt.
mailmsg	database	Displays the “mail” type Message Class form.
main	menu.manager	Displays the text-based Main menu.
mcf	database	Displays the Capability Word form.
menu	database	Displays the Menu form.
message	database	Displays the Message form.
mmm	menu.manager	Displays the text-based Main menu.
model	database	Displays the Model form.
modelicm	database	Displays the ICM Model form.
modelven	database	Displays the Model Vendor Information form.
modlist	report.exerciser	Executes the “MODEL LISTING” report via Report Exerciser.
monitor	system.monitor	Displays the system status form.
moresa	menu.manager	Displays the text-based System Admin menu (2 nd form).
moreutil	menu.manager	Displays the text-based User Utilities menu (2 nd form).

Command	RAD Application Called	Function
moreutil2	menu.manager	Displays the text-based User Utilities menu (3 rd form).
msg	database	Displays the generic Message Class form.
msgclass	menu.manager	Displays the text-based Message Class menu.
msglog	database	Displays the Message Log form.
msgtype	database	Displays the Message Type form.
napainfo	query.stored	Executes the “napainfo” query which displays the record for maintaining NAPA information.
new call	cc.first	Displays a blank call form for ticket entry.
new incident	apm.first	Displays a blank incident form for ticket entry.
new prob	apm.first	Displays a blank incident form for ticket entry.
new sla	sla.edit.objects	Displays the Service Level Agreement form.
note	database	Displays the Notification Definition form.
number	database	Displays the Sequential Number form.
ocm	menu.manager	Displays the text-based Request Management Main menu.
ocmbldlvl	ocm.co.bld.lvls	Displays the prompt for updating all of the level numbers for all components in the model file.
ocmcatalog	menu.manager	Displays the text-based Request Management Catalog menu.
ocmco	database	Displays the Request Management Component Definitions form.
ocmdeliv	report.exerciser	Executes the “Delivery Forecast for Next 7 Days” report via Report Exerciser.

Command	RAD Application Called	Function
ocmdreqj	report.exerciser	Executes the “Daily Quote Log” report via Report Exerciser.
ocmdrj	report.exerciser	Executes the “Daily Receipt Journal” report via Report Exerciser.
ocmevents	database	Displays the Request Management Events form.
ocmexample	menu.manager	Displays the text-based Request Management Example User menu.
ocmggroups	database	Displays the Request Management Group Definition form.
ocml	ocml.access	Displays the search form for Request Management line items
ocmlcat	database	Displays the Request Management Line Item Category form.
ocmlcreate	ocm.category.create	Displays the Request Management Line Item Category form.
ocmlenv	menu.manager	Displays the text-based Request Management Line Item Environment menu.
ocmlenvir	query.stored	Displays the Request Management Line Items Application Environment form.
ocmlmast	database	Displays the Request Management Catalog Select Categories form.
ocmlphase	database	Displays the Request Management Line Item Phase form.
ocmlrec	database	Displays the Request Management Receiving Log form.
ocmmain	menu.manager	Displays the text-based Request Management Main menu.
ocmo	ocmo.access	Displays the search form for Request Management orders.
ocmoappr	ocmo.access	Displays a list of orders that have been approved.

Command	RAD Application Called	Function
ocmocat	database	Displays the Request Management Order Category form.
ocmocavail	database	Displays the Request Management Check Availability Order Generation Schedule Record.
ocmcreate	ocm.category.create	Displays the Request Management Order Category form.
ocmodemand	database	Displays the Request Management Background Order Generation Schedule Record form.
ocmoenv	menu.manager	Displays the text-based Request Management Order Environment menu.
ocmoenvir	query.stored	Displays the Request Management Orders Application form.
ocmoopen	ocmo.access	Initiates the script for creating a new Request Management order.
ocmophase	database	Displays the Request Management Order Phase form.
ocmphaselg	database	Displays the Request Management Phase Log form.
ocmpo	report.exerciser	Executes the "Print Purchase Orders" report via Report Exerciser.
ocmprofile	database	Displays the Request Management Profile form.
ocmq	ocmq.access	Displays the search form for Request Management quotes.
ocmqcat	database	Displays the Request Management Quote Category form.
ocmqcreate	ocm.category.create	Displays the Request Management Quote Category form.
ocmqenv	menu.manager	Displays the text-based Request Management Quote Environment menu.

Command	RAD Application Called	Function
ocmqenvir	query.stored	Displays the Request Management Quotes Application Environment form.
ocmqopen	ocmq.access	Initiates the script for creating a new Request Management quote.
ocmqphase	database	Displays the Request Management Quote Phase form.
ocmrpts	menu.manager	Displays the text-based Request Management Reports menu.
ocmsupport	menu.manager	Displays the text-based Request Management Support Files menu.
ocmvenper	report.exerciser	Executes the “Vendor Performance Based on Line Item Dates” report via Report Exerciser.
odr	report.exerciser	Executes the “OPEN PROBLEM ANALYSIS REPORTS - DOCUMENT NUMBER” report via Report Exerciser.
oncall	database	Displays the On Call Schedule contact form.
oncallsched	database	Displays the On Call Schedule calendar form.
operator	database	Displays the Operator form.
opn	pm.access	Displays the Incident queue.
order	query.stored	Displays a list of the user’s work orders.
overspent	query.stored	Executes the “overspent contracts” query which displays a list of all service contracts that have exceeded their financial budget.
password	password.change	Displays the prompt for changing the login password.
pfkeys	database	Displays the PF Key Mapping form.
pm	menu.manager	Displays the text-based Problem Management menu.

Command	RAD Application Called	Function
pm admin	menu.manager	Displays the text-based Problem Management Environment menu.
pmapplev	database	Displays the Incident Management Environment Profile form.
pmassign	database	Displays the Assignment Group form.
pmbuild	pm.build.probsum	Displays the form for building probsummary records.
pmconvert	pm.convert.format	Displays the Convert Incident Format form.
pmgroups	database	Displays the Incident Management Groups form.
pmprofile	database	Displays the IM Security Profile form.
pmreset	pm.clear.downtime	Displays the Clear Availability Information form.
position	database	Displays the Titles & Position form.
prassg	report.exerciser	Executes the “Problem Response Analysis By Assignment” report via Report Exerciser.
prcomp	report.exerciser	Executes the “Problem Response Analysis By Component” report via Report Exerciser.
print	report.exerciser	Executes the “Print of Application” report via Report Exerciser.
printappl	report.exerciser	Executes the “Print of Application” report via Report Exerciser.
prloc	report.exerciser	Executes the “Problem Response Analysis By Location” report via Report Exerciser.
problem	menu.manager	Displays the text-based Problem Management menu.
prtmsg	database	Displays the “print” type Message Class form.

Command	RAD Application Called	Function
prvend	report.exerciser	Executes the “Problem Response Analysis By Vendor” report via Report Exerciser.
ps	menu.manager	Displays the text-based Peoplesoft menu.
psnlarea	database	Displays the HR Personnel Area form.
psnlsuba	database	Displays the Personnel Subarea form.
purgarch	pa.main.appl	Displays the Purge/Archive form.
purgeaudit	audit.purge	Displays the form for purging audit history.
qsamfiles	database	Displays the Configuration File form for qsam.
quiesce	system.quiesce	On MVS systems, prevents additional users from logging in until shutdown has completed.
RAD	database	Displays the RAD Editor prompt.
rad	encl.appl	Displays the RAD Editor prompt.
rca	menu.manager	Displays the Root Cause menu.
re	report.exerciser	Displays the Report Exerciser prompt.
recalc partials	sla.recalc.totals	Displays the prompt for recalculating SLA information over a given time frame.
region	database	Displays the Country Division form.
report	report.exerciser	Displays the Report Exerciser prompt.
resetbm	benchmark.reset	Resets the system Benchmark results.
reslist	report.exerciser	Executes the “resolution code listing” report via Report Exerciser.
resol	database	Displays the Resolution Codes form.

Command	RAD Application Called	Function
review cc	cc.setup.manage	Displays the Call queue.
review im	apm.setup.manage	Displays the Incident queue.
review pm	sc.setup.manage	Displays the Incident queue.
rmail	read mail	Displays the prompt for selecting which type of internal ServiceCenter mail to read.
rt	menu.manager	Displays the text-based Text RT menu.
run	encl.appl	Displays the Application Exerciser form for testing/running a RAD application directly.
rv	pm.access	Displays the Incident queue.
rw	report.writer	Displays the Report Writer prompt.
sap	menu.manager	Displays the text-based SAP menu.
sapconfig	query.stored	Executes the "sapconfig" query which displays the Enterprise Connections configuration record.
sarpts	menu.manager	Displays the text-based System Admin Report menu.
sc5upgrade	menu.manager	Displays the Application Upgrade menu.
sc5upgradetext	menu.manager	Displays the text-based Application Upgrade menu.
scd	menu.manager	Displays the text-based SCD (ServiceCenter Distributed) menu.
scdsites	database	Displays the distributed ticketing sites form.
sch	database	Displays the Schedule File form.
schedule	database	Displays the Schedule File form.
schmail	mail.set.schedule	Displays the form for scheduling background mail.
scknowledge	sc.knowledge	Displays the Knowledge Base form.

Command	RAD Application Called	Function
scm	menu.manager	Displays the Main menu.
scmsg	database	Displays the ServiceCenter Message form.
scr	report.exerciser	Executes the “shift change report” report via Report Exerciser.
scripts	script.maint	Displays the Script Definition form.
search cal	cc.search.incidents	Displays the search form for Service Management calls.
search calls	cc.search.incidents	Displays the search form for Service Management calls.
search incident	apm.search.problems	Displays the search form for Incident Management incidents.
search prob	apm.search.problems	Displays the search form for Incident Management incidents.
search sla	sla.search.objects	Displays the search form for Service Level Agreements.
servcont	database	Displays the Service Contract form.
shadow	pmc.sql.front	Initiates the process for shadowing data between SQL and P4.
shutdown	system.shutdown	Initiates the process for shutting down the ServiceCenter server.
SLA	sla.graph	Displays the current SLA response metrics bar chart.
sla	menu.manager	Displays the text-based SLA menu.
sm	menu.manager	Displays the text-based Service Management menu.
sm admin	menu.manager	Displays the text-based Service Management Environment menu.
smail	mail.send.appl	Displays the prompt for confirming the sending of internal ServiceCenter mail.
smapplenv	database	Displays the Service Management Environment form.

Command	RAD Application Called	Function
smgroups	database	Displays the Service Management Groups form.
smprofile	database	Displays the Service Management Security Profile form.
softlist	report.exerciser	Executes the “software product listing” report via Report Exerciser.
software	database	Displays the Installed Software form.
sol cans	se.search.engine	Displays the Pending Knowledge Items form.
spool	spool.scheduler	Displays the Spoolheader form.
sq	database	Displays the Stored Query Maintenance form.
sql	menu.manager	Displays the text-based SQL menu.
start	apm.upgrade.main	Initiates the Upgrade Utility wizard.
startbm	benchmark.start	Displays the Benchmark Utility form.
status	system.status	Displays the system status form.
stdptrs	database	Displays the Configuration File form for standard printers.
subtotals	database	Displays the Subtotal Definition form.
sw	database	Displays the attribute form for the Software device type.
swlst	report.exerciser	Executes the “software product listing” report via Report Exerciser.
sysadm2	menu.manager	Displays the text-based System Admin Menu II menu.
sysadmin	menu.manager	Displays the text-based System Administrator menu.
syslog	database	Displays the System Log form.

Command	RAD Application Called	Function
task	query.stored	Displays a list of the user's change tasks.
terminals	database	Displays the Terminal Configuration form.
termtype	database	Displays the Terminal Type Definition form.
titles	database	Displays the Aristocratic Titles form.
to sql	pmc.sql.front	Initiates the process for pushing P4 data to an RDBMS database.
tpdev	database	Displays the attribute form for the Teleprocessing device type.
tplst	report.exerciser	Executes the "tp devices listing" report via Report Exerciser.
triggers	database	Displays the triggers form.
tskqueue	sc.setup.manage	Displays the Task queue.
tsomsg	database	Displays the "tso" type Message Class form.
unload	us.unload	Displays a list of unload scripts.
unshadow	pmc.sql.unfront	Initiates the process for turning off the shadowing of data between SQL and P4.
uoperprof	query.stored	Displays the Operator Status Display form.
upd	pm.access	Displays the Incident queue.
userlevel	us.userlevel	Displays the current user access level and the options for changing this access.
userstats	report.userstats	Displays the prompt for executing the Usage Statistics report.
userutil	menu.manager	Displays the text-based User Utilities menu (1 st form).
usrcmr	cm3r.main	Displays a list of the current Change Management request categories.

Command	RAD Application Called	Function
usrdir	database	Displays the Contacts form.
usricm	icm.access	Displays the Asset Information form.
usrknow	database	Displays the search form for Knowledge Base information.
usrocma	ocmo.access	Displays a list of the current Request Management orders.
usrocmo	ocmo.access	Displays the search form for Request Management orders.
usrprof	menu.manager	Displays the text-based Profiles menu.
validity	se.search.engine	Displays the Validity Table Specifications form.
vend	database	Displays the Vendor/Manufacturer form.
vendlist	report.exerciser	Executes the “vendor listing” report via Report Exerciser.
vendor	database	Displays the Vendor/Manufacturer form.
venlist	report.exerciser	Executes the “vendor listing” report via Report Exerciser.
viewbm	benchmark.avg.results	Displays the Benchmark Results.
vsaminfo	query.stored	Executes the “vsaminfo” query which displays the record for maintaining VSAM information.

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