Peregrine

ServiceCenter

User's Guide

Release 5.1

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Peregrine SYSTEMS

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This edition applies to version 5.1 of the licensed program.

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Contents

About This Guide

The *ServiceCenter® User's Guide* provides an introduction to ServiceCenter, including an overview of its applications, modules, and utilities, and a discussion on the best practices in processes and workflow. For an extensive glossary on ServiceCenter terms used throughout this guide, refer to the *Introduction and Best Practices* guide.

The ServiceCenter applications covered in this guide are:

- *Service Management* on page 105
- *Incident Management* on page 197
- *Scheduled Maintenance* on page 145
- *Inventory Management* on page 257
- *Service Level Management* on page 345.
- *Root Cause Analysis* on page 377
- *Change Management* on page 407

This guide also includes information on the main ServiceCenter window and to use the applications, log on to and log off from ServiceCenter, and using the menus and buttons, including:

- *Getting Started* on page 23
- *IR Expert* on page 521
- *The Java Client Desktop* on page 87
- *Printing* on page 539
- *The Contacts File* on page 547
- *Knowledge Base - Diagnostic Aids* on page 561

Knowledge Requirements

As a ServiceCenter user, you need a basic knowledge of the environment in which you are working (Windows, UNIX, or OS/390).

Who Uses ServiceCenter?

Anyone in your company can benefit from using ServiceCenter. Help desk operators can open call reports to report hardware problems for their users, such as printing problems. IS can use Asset Management to track the hardware and software used by your company. Managers can use Request Management to approve and to track equipment orders.

Organization of this Guide

This guide is organized around the main functions associated with the ServiceCenter applications and modules. 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 Overview; get to know ServiceCenter's applications and utilities	*Who Uses ServiceCenter?* on page 14
How to use the menus, toolbar, and buttons	*Using the Menus, Toolbar, and Buttons* on page 40
Logging on to and logging out from ServiceCenter, setting up inboxes, and editing records	*Getting Started* on page 23
Accessing Service Management, searching call reports, creating categories for Service Management and Incident Management	*Service Management* on page 105
Accessing Asset Management, searching Asset Management, asset record tabs, creating and updating an asset record	*Incident Management* on page 197
Accessing Change Management, changes and tasks, using Change Management, approving a change or task phase	*Change Management* on page 407
Printing	*Printing* on page 539
Accessing contact records, creating and updating a contact record	*The Contacts File* on page 547
Plain language queries, using the Knowledge Base form	*Knowledge Base - Diagnostic Aids* on page 561

Sample Forms and Examples

The sample forms 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 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 displays 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
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Fax:	+1 (858) 480-3928

CHAPTER 1

Introduction

The *User's Guide* provides step-by-step instructions for using ServiceCenter applications, including logging on and off ServiceCenter and using the menus and buttons. Before you begin you'll need a basic knowledge of the working environment (Windows, UNIX, or OS/390).

Note: If you have not read *Introduction and Best Practices*, please do so before continuing with the *User's Guide*.

This chapter contains:

How do You Locate ServiceCenter Records?

The ServiceCenter database is a set of files containing *records*. As a ServiceCenter user, you can search, modify, create, and delete these records. Examples of records are:

- Users
- Inventory of assets
- Call reports
- Incident tickets
- Changes
- Requests

Throughout this guide you will see the term *query*. A query is a search of the ServiceCenter database. A *Query-by-Example (QBE)* is a search of the database using the information you know about the record for which you are searching.

If multiple records are found matching your search parameters, a *QBE Record list* displays from which you can select the record you want to see.

Once you have accessed a record, you can *browse* (view only), or *update* the record. Your ability to do this depends on how your system administrator configured your *user profile*. For example, as a user, you may not have the ability to approve a change record.

Instructions for searching the ServiceCenter database are found in the following chapters: *Service Management* on page 105, *Incident Management* on page 197, *Change Management* on page 407, *Inventory Management* on page 257, and the *Request Management Guide*.

Sample Data in the System

ServiceCenter comes with a set of sample data to help you work with and learn the system. The sample data is referenced throughout this guide to illustrate ServiceCenter applications and processes. You can modify or delete these records as you learn the system, and you can create new records. Also, your ServiceCenter administrator can use these records as a model for your actual data.

Sample data includes information in the following areas:

- **Users.** The sample data includes a set of fictitious users with associated profiles and records.
- **Inventory.** A simulated network inventory is included with the sample data. This sample inventory database includes modems, PCs, workstations, mainframe hosts, and so forth.
- **Call Reports.** A set of sample call reports is included. You can review, update, and close these reports as you would a call report in a production system.
- **Incident Tickets.** A set of sample incident tickets is included. You can review, update, and close these tickets as you would an incident ticket in a production system.
- **Changes.** The sample database includes a set of change records. You can review, update, close, or approve the change records according to the permissions granted to your current user level (for example, user or administrator).
- **Requests.** A set of sample equipment orders is included with Request Management. You can modify and approve these orders according to the permissions granted to your current user level.

DDE Support

If you are running a ServiceCenter client in a Windows environment, you can export information to Microsoft Excel. Utilizing Dynamic Data Exchange (**DDE**), you can export call lists and incident lists to any product, such as a Microsoft Excel spreadsheet. When you select the menu option to export to Excel, a spreadsheet automatically opens and the data displays in the spreadsheet. This DDE function requires Excel 95 or later.

ServiceCenter DDE support is available in both Windows 16-bit (Windows 3.11) and 32-bit environments (Windows NT and so forth). DDE support is created in a ServiceCenter RAD (Rapid Application Development) application. ServiceCenter DDE support for other applications can be created through RAD.

Note: You can export some ServiceCenter records to a text file, which is not part of the DDE support. You can run this from clients other than those operating in Windows.

Accessing the Knowledge Base

To access the ServiceCenter Knowledge Base:

1 Click **Search Knowledge Base** from an application home menu (Service Management, Incident Management, or Root Cause Analysis).

The Knowledge Base form displays.

Note: Refer to *Knowledge Base - Diagnostic Aids* on page 561 for a detailed description of the process used to search the Knowledge Base.

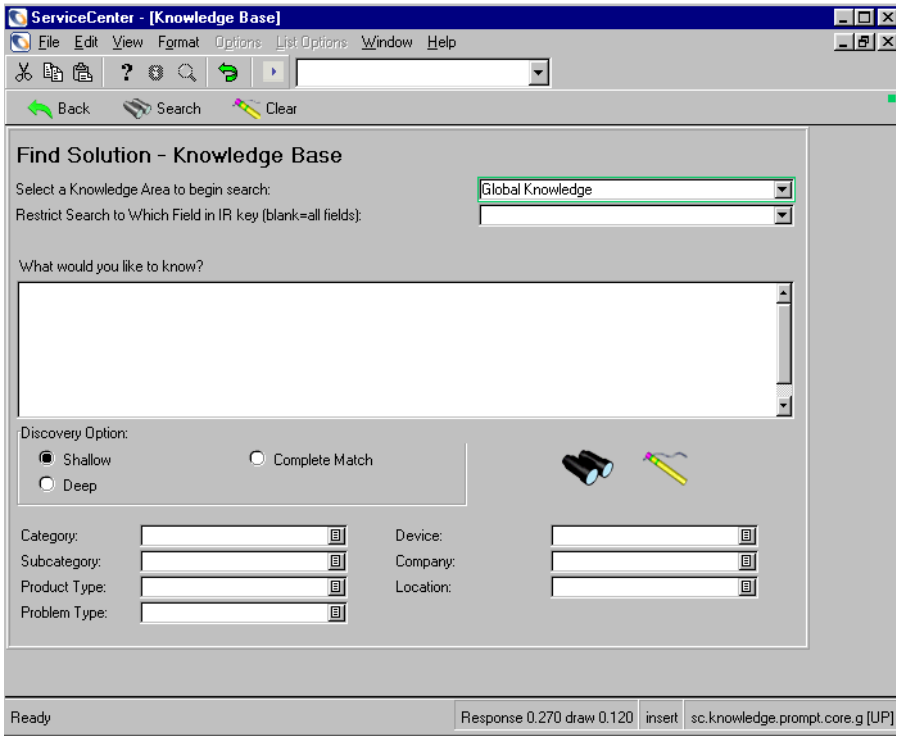


Figure 1-1: Knowledge Base Search form

2 Getting Started

CHAPTER

This chapter helps you get started using ServiceCenter and includes instructions for starting a client session, logging in and logging out, accessing the applications, and navigating around the ServiceCenter GUI (graphical user interface.)

The forms displayed in this guide may differ from your system because ServiceCenter is customizable and may be configured differently for your site. More advanced features may only be available to certain personnel, such as system administrators. Contact your ServiceCenter administrator with any questions about differences you find in the applications.

This chapter has been divided into the following sections:

Starting a Client Session

The platform you are using determines the way in which you start a ServiceCenter client session.

To start a client session in a Windows-based environment:

- Double-click the ServiceCenter icon on your desktop.

To start a client session from a UNIX prompt:

- In text mode, type the command:
  scenter

To start a client session in a 3270 session:

- Type the command:
  logon applid=applid
  where *applid* is the ServiceCenter-specified application ID.

Accessing ServiceCenter Using the Java Client

You can also access ServiceCenter from your PC by connecting directly to a ServiceCenter Express Server, using the ServiceCenter Java client. The Java client supports the same functionality as the traditional ServiceCenter Windows clients without any need for application or format customization. To learn more about the Java client, see *The Java Client Desktop* on page 87, as well as the *Java Client Installation and Configuration Guide*.

Access to ServiceCenter by Persons with Disabilities

When Section 508 recently became an addendum to the Rehabilitation Act of 1973, Federal government agencies were required to make electronic and information technology usable by persons with disabilities. ServiceCenter has been enhanced to accommodate persons with disabilities, making it compliant to Section 508 through use of its Java client.

The following components enable 508 compliance:

Java Accessibility API

An application development interface that provides information and content to assistive technologies, such as Jaws for Windows.

Java Accessibility Utility Package

Provides assistive technology vendors the ability to locate and gain access to all components (fields, buttons, check boxes, and radio buttons) within a form and track events.

Java Accessibility Bridge

A native platform implementation that provides the connection between the Java application and the native mode assistive technology program.

Note: This is currently implemented only for the Windows operating system.

Viewing Options

Pluggable look-and-feel architecture currently includes emulations of common GUIs, such as Windows and Unix Motif, and optional color schemes to enhance the user's viewing experience. It also provides support, so that assistive technology vendors can implement custom look-and-feels to support non-visual presentation, such as audio or tactual devices.

Note: The Java client currently sets the look-and-feel to that of the native platform on which it is running.

To set viewing preferences:

- Choose **View>Preferences>Look and Feel**.

—or—

- Choose **View>Preferences>Color Scheme**.

Set up preferences for the look and feel of the system, including the overall look of the menus (forms) and choices of color scheme.

Editing Options

Set preferences for disabling animation and gaining access to all components (such as, fields, buttons, check boxes, and radio buttons), including read-only fields.

To set accessibility and animation preferences:

- Choose **Edit>Preferences>Accessibility>Access all Fields**.

  Setting these preferences enables text reader assistive technologies to read through the components of a form (fields, buttons, check boxes, or radio buttons) within ServiceCenter. Users can also set a preference to disable animation, such as blinking status lights, that could become burdensome to the user.

- Choose **Edit>Preferences>Accessibility>Disable Animation**.

  Check this option to disable the blinking status light and messages within the status bar. This helps to ease any distractions caused by the blinking status light or flashing messages within the status bar.

- Choose **Edit>Preferences>Accessibility>Ignore Server Tab Order**.

  If this option is selected, the hard-coded tab order is overridden, allowing the user to use top-down, left-to-right tabbing.

  To learn more about tailoring your system using Forms Designer, see the *System Tailoring* guide.

Logging In to ServiceCenter

Your system administrator sets up your user name to have certain capabilities. For example, as a Help Desk operator, you can open incident tickets in Incident Management, but you may not be able to change capabilities.

Sample users are shipped with ServiceCenter with each of them having different user rights. These sample users are for training, testing, and product demonstrations. This guide uses five of these users. The capabilities of each of these users varies depending on their jobs. Login names of the sample users and the types of users that they represent are as follows. Note that the login name of each user is typed in *UPPERCASE* letters.

- *BOB.HELPDESK*—first-level help desk person
- *SUSIE.SUPERTECH*—service technician (such as IS personnel)
- *MAX.MANAGER*—manager (personnel with approval authority)
- *FALCON*—system administrator
- *JACK*—system user

When you first access ServiceCenter, a login form prompts you to enter your user name and password (Figure 2-1).

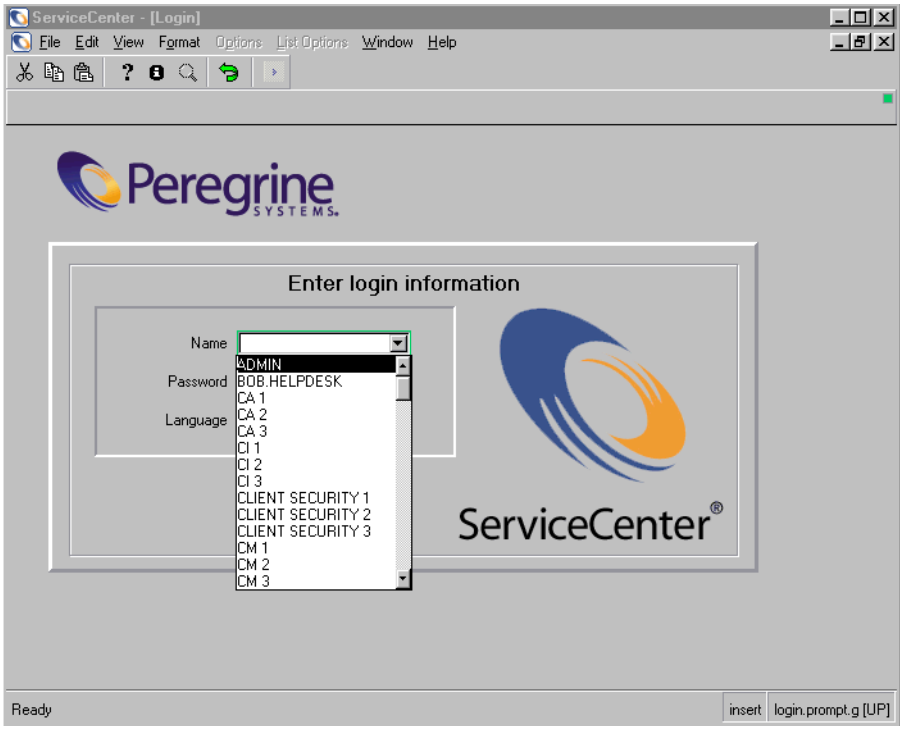


Figure 2-1: ServiceCenter Login form

To log on to ServiceCenter:

1 Type one of the login names of the sample users in the **Name** field.

The login is case-sensitive. For example, type BOB.HELPDESK. Notice that as soon as you type the B, ServiceCenter automatically fills in the rest of the name since this name is included in the login list.

You can also select the login name from the **Name** field drop-down list.

2 By default, no password is required for the predefined users.

3 Select a language if you want to use a language other than the default.

4 Click **OK**, or press **Enter**.

Note: When you select a language, ServiceCenter forms are automatically adjusted to that language's default form width. This is done to accommodate the proportions of different languages. In the basic system, forms in English are widened by 25%. All other languages are widened to 50%. You can adjust the width further by pressing Shift+Ctrl+W. This command widens the form in 25% increments. To narrow the form, press Shift+Ctrl+N.

Logging Out of ServiceCenter

ServiceCenter provides several options for logging out.

To log out of ServiceCenter from any form:

1 Choose **File>Exit ServiceCenter** from the menu.

A confirmation window displays asking if you want to end the current session.

2 Click **OK** to exit.

-or-

Click **Cancel** to return to the current ServiceCenter form.

To log out of ServiceCenter from the Home menu:

1 Click **Logout**.

The logout form displays asking you to confirm that you want to exit ServiceCenter.

2 Click **Exit**.

-or-

Click **Logout** to exit this client session.

-or-

Click **Home** to return to the **Home** Menu.

From the command prompt (administrator client):

1 Type Logout.

2 Press **Enter**.

No confirmation message displays.

In text mode:

1 Type Logout.

2 Press **Enter**.

No confirmation message displays.

Note: For information on text mode, see the *System Administrator's Guide*.

ServiceCenter Interface

Each ServiceCenter form displays in a main ServiceCenter window. The main window contains a menu bar with options that vary, depending upon the ServiceCenter form that is active. Tool bars and system trays are provided on each ServiceCenter form displayed in the main window.

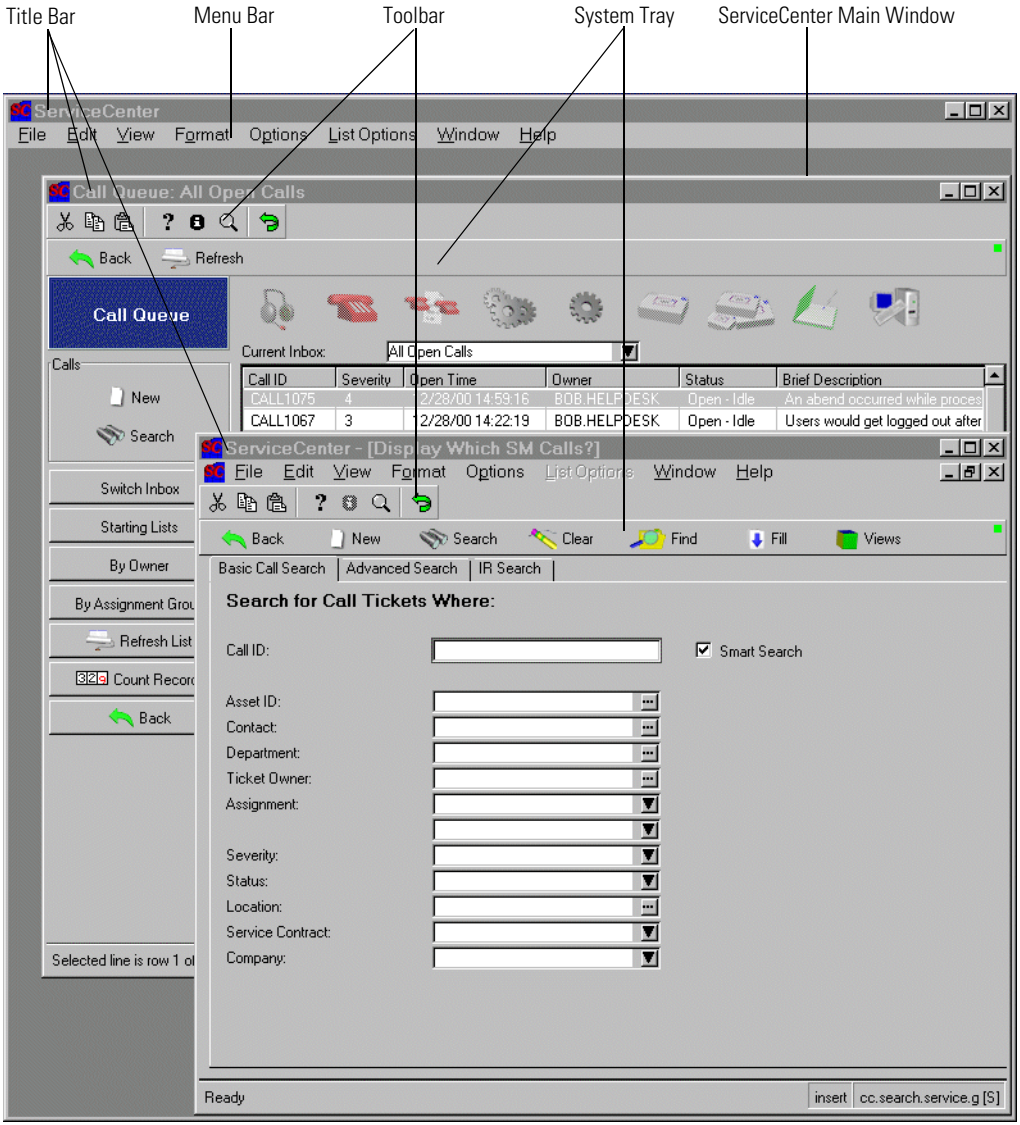


Figure 2-2: ServiceCenter Interface

ServiceCenter Home Menu

The ServiceCenter Home menu is the first window displayed after you log on to ServiceCenter. The Home menu displayed depends on how you are configured as a ServiceCenter user. This section explains some of the differences between the user and system administrator Home menus.

Help Desk Home Menu

ServiceCenter ships with a default help desk user profile (*BOB.HELPDESK*). When logging on as *BOB.HELPDESK*, the Help Desk home menu displays as follows:

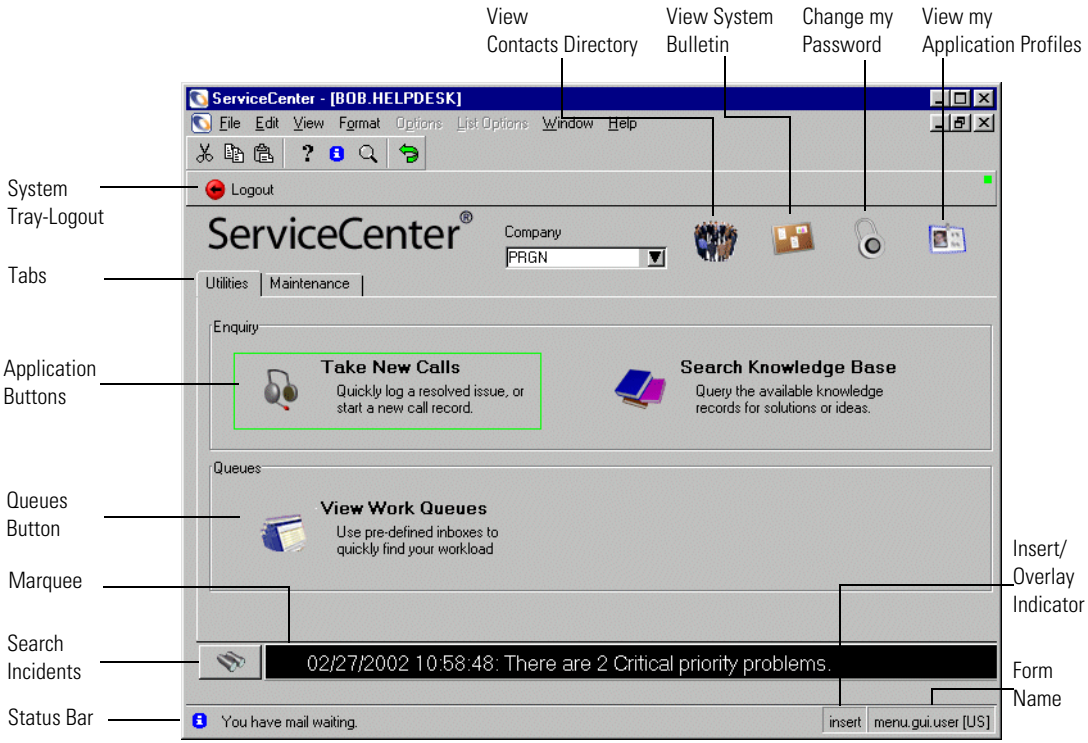


Figure 2-3: Help Desk Home Menu

The tabs in the form shown in Figure 2-3 access options available to help desk users.

Utilities tab

Field	Description
Take New Calls	Creates new call reports.
Search Knowledge	Accesses the ServiceCenter Knowledge Base. See *Knowledge Base - Diagnostic Aids* on page 561 for more information on the knowledge base.
View Work Queues	Examines call, incident, and change reports.

Maintenance tab

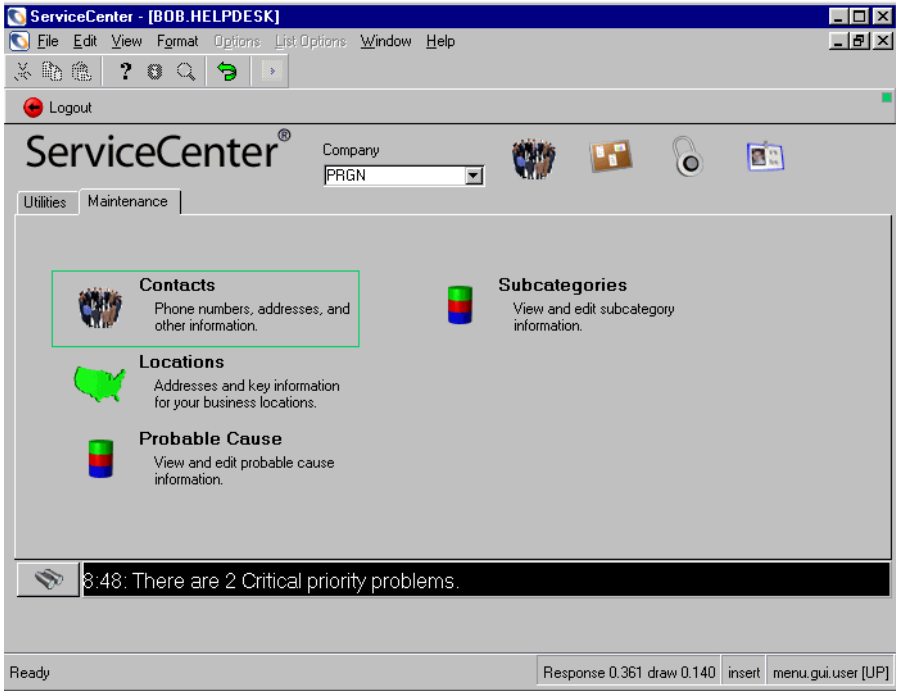


Figure 2-4: Help Desk Maintenance tab

Field	Description
Contacts	Examines or creates contact records.
Locations	Examines or creates location records.
Probable Cause	Examines or creates probable cause records for Service and Incident Management. Probable cause records describe common symptoms and their resolutions.
Subcategories	Examines or creates subcategory records for Service Management and Incident Management.

System Tray and Buttons

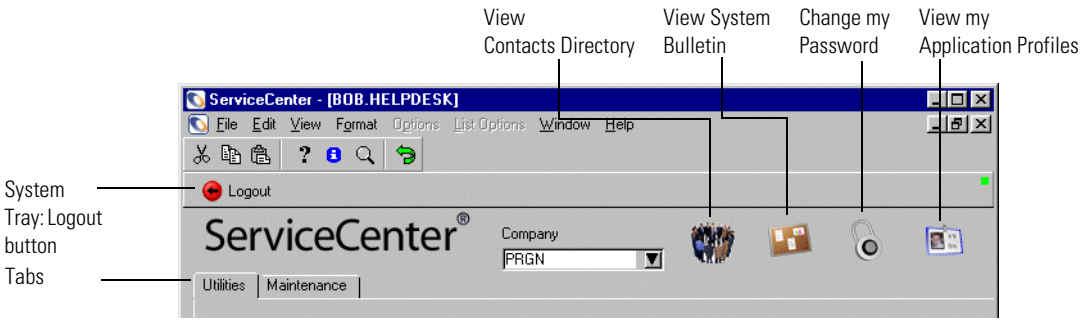


Figure 2-5: System Tray and Buttons

Button	Function
Logout	Closes the ServiceCenter client that you are running. This does not affect the ServiceCenter server.
View Contacts Directory	Accesses a blank contacts record. From this form, you can search for information about customers.
View System Bulletin	Displays a separate message window containing important status information provided by your system administrator.
Change my Password	Allows you to change your ServiceCenter password.
View my Application Profiles	Accesses a user profile list that displays information about your user privileges as an operator and user of the ServiceCenter applications.

Technician Home Menu

ServiceCenter ships with a sample user profile for a technician (*SUSIE.SUPERTECH*). The Technician Home menu is shown as follows:

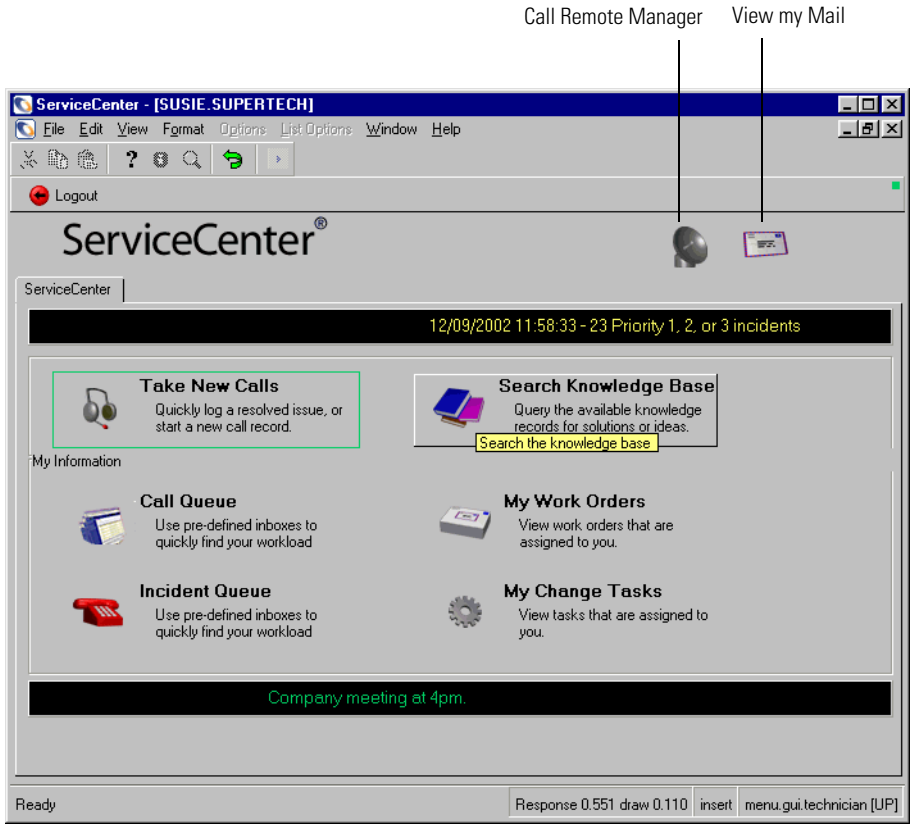


Figure 2-6: Technician Home menu

Button	Function
Take New Calls	Accesses Service Management to create a call report.
Search Knowledge Base	Searches the ServiceCenter database.
Call Queue	Allows you to examine call reports.
Incident Queue	Allows you to examine incident tickets.
My Work Orders	Checks Request Management for work orders.
My Change Tasks	Checks Change Management for tasks you need to complete in a change.
Call Remote Manager	If installed, accesses the Remote Management application.
View my Mail	Accesses the ServiceCenter Mail utility.

Manager Home Menu

ServiceCenter ships with a sample user profile for a manager *(MAX.MANAGER)*. Managers have wider ranging capabilities than the other users, including approval authority. However, managers do not have administrative functionality.

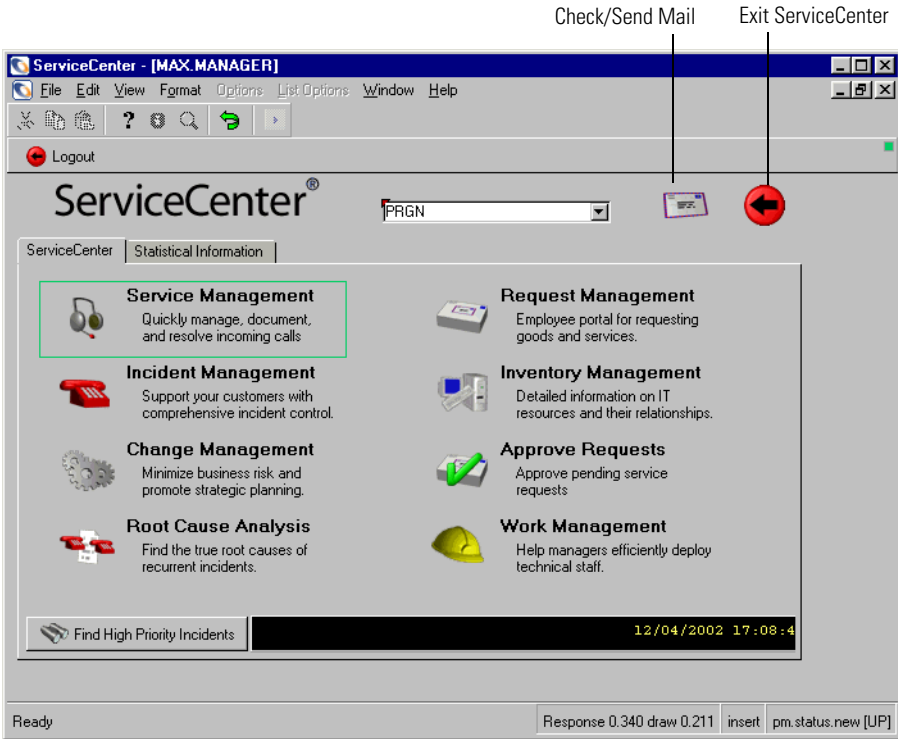


Figure 2-7: Manager Home Menu—ServiceCenter tab

ServiceCenter tab

Button	Function
Service Management	Accesses the call queue.
Incident Management	Accesses the incident ticket queue.
Change Management	Accesses the Change Management menu.
Root Cause Analysis	Accesses the Root Cause Analysis menu.
Request Management	Accesses the Request Management main menu.

Button	Function
Inventory Management	Accesses the Asset Management menu.
Work Management	Accesses the Work Management utility if installed. Work Management is added through a Custom installation. Refer to the *Client/Server Installation Guide for Windows NT* for more information.
Approve Requests	Accesses the Request Management orders which this user can approve.
Find High Priority Incidents	Searches the ServiceCenter database for incident tickets marked as High Priority. The results are displayed in a QBE Record list.
Check/Send Mail	Accesses the ServiceCenter Mail utility.
Exit ServiceCenter	Closes the ServiceCenter client that you are running. This does not affect the ServiceCenter server.

Statistical Information tab

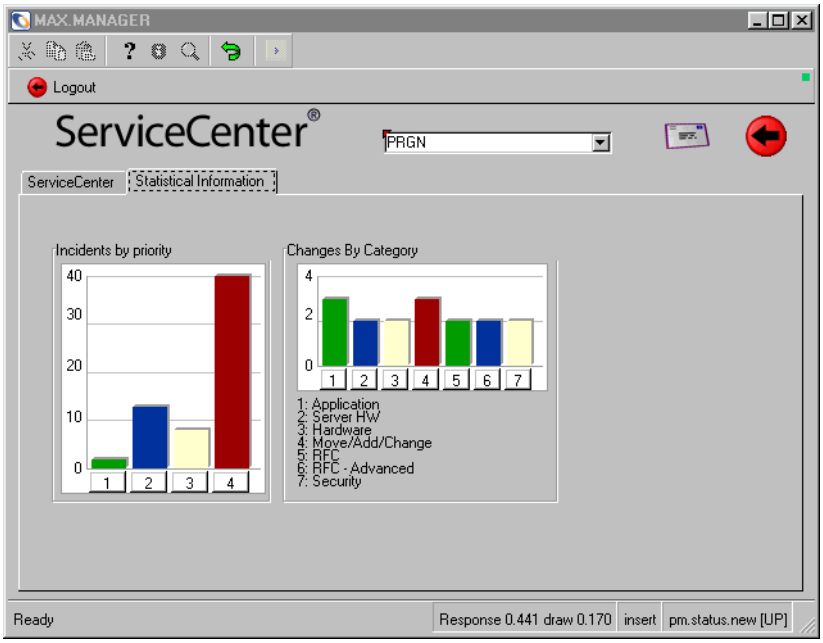


Figure 2-8: Manager Home Menu—Statistical Information tab

Graph	Description
Incidents by Priority	Graphs the number of open incident tickets in the database based on ticket priority: **1**, **2**, **3**, or **4**. Click on a priority number button in the graph to view tickets with that priority.
Changes by Category	Graphs the number of changes in the database according to the change category: ■ **Application** ■ **Server HW (hardware)** ■ **Hardware** ■ **Move/Add/Change** ■ **RFC** ■ **RFC - Advanced** ■ **Security**

By clicking the corresponding number button in the graph, you can view the changes listed in that category.

Administrator Home Menu

ServiceCenter ships with a sample profile for a user with system administration privileges *(FALCON)*. The *System Administrator's Guide* describes in detail the role of the administrator and the applicable functionality.

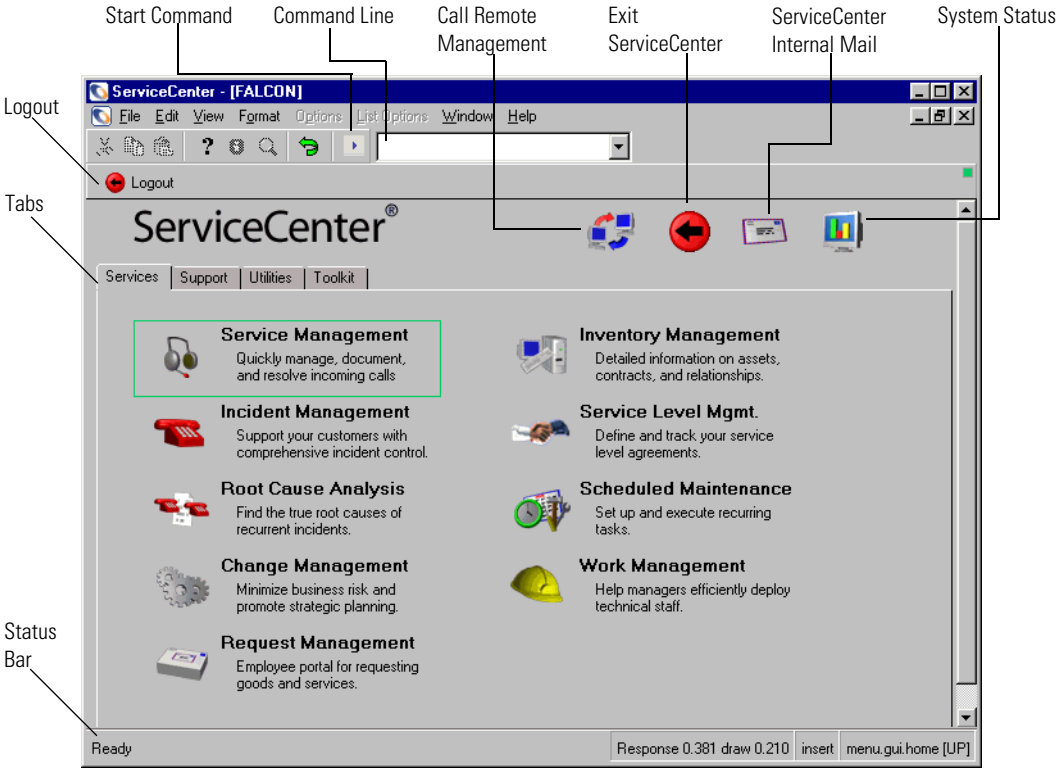


Figure 2-9: Administrator Home menu

Buttons

Button	Function
Call Remote Management	Accesses the Remote Management module.
Exit ServiceCenter	Logs out of the current ServiceCenter client session.
ServiceCenter Internal Mail	Accesses the internal **ServiceCenter Mail** utility (unrelated to external email).
System Status	Accesses the system status list to display status information about users and processes.

System Tray Buttons

Button	Function
Logout	Logs you out of the current ServiceCenter client session. This button is the same as the Exit button.
Command	Displays the ServiceCenter command prompt.

Tabs

Tab	Function
Services	Accesses the main ServiceCenter applications.
Support	Accesses the Contacts, Locations, Vendors, and Models files. See *The Contacts File* on page 547 for more information on the Contacts file. Refer to the *System Administrator's Guide* for information on the Locations, Vendors, and Models files.
Utilities	Accesses utilities used to administer and tailor ServiceCenter.
Toolkit	Accesses applications that are used to customize ServiceCenter.

Using the Menus, Toolbar, and Buttons

The ServiceCenter main window contains a menu bar. Each menu, except **Options** and **List Options**, has the same choices in each form. The choices in the Options and List Options menus vary from form to form.

The ServiceCenter tool bar is located at the top of each form. The tool bar provides shortcut buttons for choosing some of the menu options. Click the button to take the action represented by the equivalent menu option.

Many ServiceCenter forms also contain tabs. Tabs allow quick access to other applications or a set of grouped fields, which eliminates the need to open additional forms.

Status Light

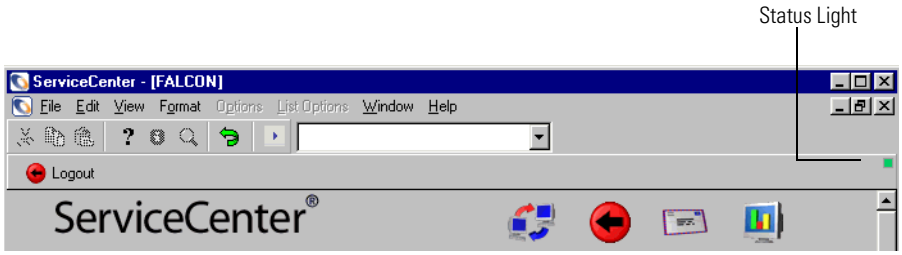
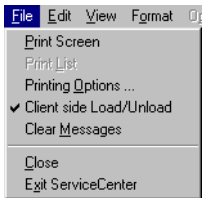


Figure 2-10: Status Light

The status light in the ServiceCenter Home menu indicates current ServiceCenter activity. See below for the activity indicator color descriptions on the ServiceCenter status light.

Activity indicator color	Status light description
Black	Scrolling a table while more data is being pulled from the system.
Blue	Packaging data to send to the server.
Cyan	Requesting rows of information for a table, requesting active notes messages/heartbeat, or processing a form event.
Green	Ready to interact.
Magenta	Building the form.
Red	Running RAD code on the server.
Yellow	Running RAD code on the client.



File Menu

The File menu contains these options:

File Menu Option	Description
Print Screen	Issues a command that prints the current ServiceCenter window on the printer selected in the **Print Setup** dialog box. The **Print Setup** dialog box is accessed from **Client Page Setup** in the **Printing Options** dialog box. The Print Screen option only applies to the current form displayed.
Print List	Only available if an inbox or a QBE Record List displays. The list is printed to the user's default ServiceCenter printer.
Printing Options	Displays a dialog box, so you can configure ServiceCenter printing. ■ **Client Page Setup**—accesses the client platform print dialog box to select and configure a printer. ■ **Client Font Setup**—accesses the client platform font set to select a font to be used when ServiceCenter prints a record. ■ **Print reports on**—allows you to select where ServiceCenter reports are spooled for printing. The default is the server printer. An **[S]** displays in the right corner of the Status bar of a form if the server printer is chosen (as shown in Figure 2-3 on page 31). If the client printer is selected, a **[P]** displays. You can change this setting from any ServiceCenter form. Pressing Ctrl-Shift+P toggles between the two settings. **Note:** Selecting **Client printer** ensures that reports are sent to a printer connected to the client. This option only operates when reports are printed in the foreground. Background print jobs are always performed using the server printer. ■ **Limit client reports to <N> pages**—sets the limit of report data sent from a ServiceCenter server to a client. Reports printed from a client are downloaded from the server. Some are lengthy, which prolongs the download time. **Note:** ServiceCenter reads client print settings from the default print settings set within your operating system. To avoid the need to reset these settings from session to session, select the appropriate default settings outside of ServiceCenter. For instance, in Windows you can make default print selections from the Control Panel.

File Menu Option	Description
Client Side Load/Unload	Allows an Express client to perform loads and unloads to and from the client machine. If this option is not selected, loads and unloads are performed on the server.
Clear Messages	Clears messages in the message pop-up window for the current client session.
Close	Closes the current form. If the form is your starting ServiceCenter point, you are taken to the exit form to log out of ServiceCenter.
Exit ServiceCenter	Logs you out of the current ServiceCenter session.

Edit Menu and Toolbar Button

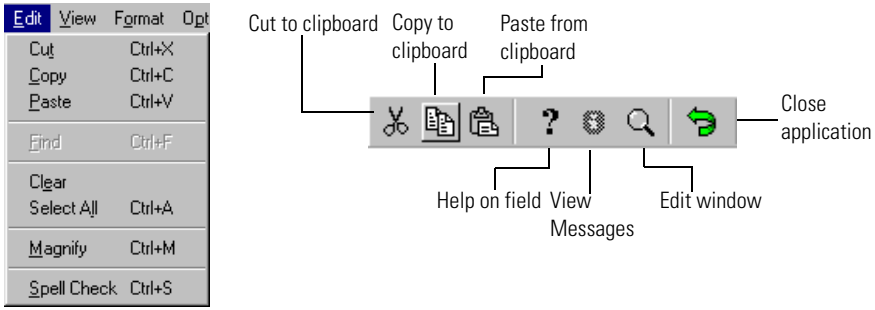


Figure 2-11: Edit Menu

The Edit menu and toolbar buttons provide standard text editing options for the current ServiceCenter form: Cut, Copy, Paste, Find, Clear, Select All, Magnify, and Spell Check. To use the Edit options, the cursor must be in a field. A field is an area where you can enter information. Text must be selected (highlighted) to use Cut and Copy.

The Edit menu's Cut, Copy, Paste, Find, Clear, Select All, Magnify, and Spell Check options can be executed with standard keystroke shortcuts. For example, Ctrl+X executes a Cut operation in a Windows client. The shortcut keys differ between platforms. For Windows, the shortcut key is the *Control* key. For Windows and other platforms, the keys are displayed in the menu next to the options.

The edit options also can be executed using the buttons in the tool bar. See the buttons with descriptions of each edit option described below.

Note: The Cut, Copy, Paste, and Clear options only apply to the current form. If the field with the same information is repeated in multiple forms that are related, you need to use an update function to apply the change to all those forms. The update function is discussed later in this guide under the various applications.

Edit Option	Description
Cut	Removes selected text from a field and places the text on a clipboard. A clipboard is a location in memory where information is temporarily stored. If you cut text from one field, then Cut or Copy more text, the new information replaces the old information on the clipboard. You could use Cut to remove text that has been entered in the wrong field, but needs to be placed elsewhere.
Copy	Places the selected text on a clipboard without removing the text from the field. You could use Copy if you wanted the same text placed in another field.
Paste	Allows you to place cut or copied text into a field. You can repeat the Paste and place the information from the clipboard into multiple fields, or you can paste the text into fields in other forms.
Find	Searches for and highlights text in the current field.
Clear	This is a menu option only. It deletes text from the field where the cursor currently is located. The text is *not* placed on the clipboard.
Select All	Selects all of the text in the current field.
Magnify (Edit window)	Opens a pop-up window for editing the text in the current field. The text editor contains the following options to make text editing easier: **Cut**, **Copy**, **Paste**, and **Clear**.

Spell Check

The *Spell Check* Edit option is a standard text spell checker that verifies the spelling of text for any extended text field, such as the **Description** field in an Incident Management ticket, within a document. You can also check the spelling of a selected word(s) by highlighting and right-clicking the word.

The *Spell Check* Edit option is available to Windows clients and Java clients. The functionality is the same for each client, but presentation of the spell checker slightly varies for each. Also, access to the *Spell Check* Edit option is different for each client type and is described below.

To activate the Spell Check Edit option:

1 Put the cursor in the extended text field in which you want to verify the spelling of text entered.

For example: You have entered a description of a reported problem in an Incident ticket and would like to verify the text within this field.

If you choose to have all the text verified within a document, begin the spell checker.

-or-

If you want to verify a selected word(s), highlight and right-click on the word. Begin the spell checker to verify the selected text.

- For Windows clients, choose **Edit>Spell Check** to begin the spell checker.
- For Java clients, click **Spell Check** in the tool bar or press **Ctrl+S**.

2 You are prompted with the Check Spelling dialog box where the words are verified for correct spelling against the spell checker's dictionary.

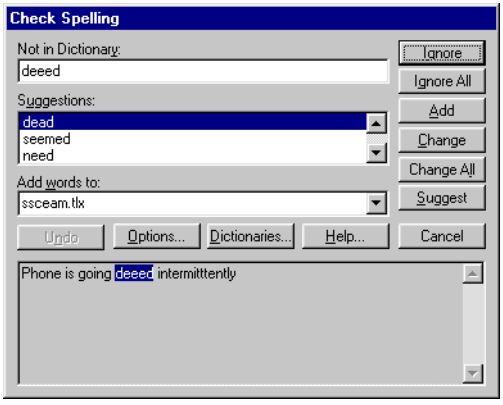


Figure 2-12: Check Spelling dialog box

The Spell Check Edit options presented in the dialog box include:

Spell Check Edit Option	Description
Ignore	Tells the spell checker to ignore this word and continue checking the rest of the text.
Ignore All	Tells the spell checker to ignore this word or highlighted text and continue checking the rest of the text.
Add	Adds a word to the dictionary, so that the spell checker recognizes it as a valid word.
Change	Changes the misspelled word to the suggested word highlighted in the list of *Suggestions*.
Change All	Changes all the words that are equally misspelled to the suggested word highlighted in the list of *Suggestions*.
Suggest	Suggests a replacement word from the dictionary and displays in the list of *Suggestions*.

3 When the spell checker is finished processing all the suggested changes and additions, the following prompt displays: *The spell check is complete.*

4 Click **OK** to return to the previous form.

Note: ServiceCenter is using Wintertree Software's Sentry Spelling Checker, which uses Standalone Windows help engine (WINNT\winhlp32.exe) to display the help file. Therefore, if you open Help and then cancel the spell checker or exit ServiceCenter without closing the Help dialog box, the dialog box does not automatically close.

Options within the Check Spelling dialog box

When the following options are selected, the spell checker works as explained in each option below.

Dialog Box Option	Description
Ignore capitalized words (e.,g., Canada)	Ignores words that are capitalized, yet not at the beginning of a sentence.
Ignore all caps words (e.g., ASAP)	Ignores words, such as acronyms, that are all in uppercase.
Ignore words with numbers (e.g., Win98)	Ignores words that contain numbers. Do not consider these misspelled.

Dialog Box Option	Description
Ignore words with mixed case (e.g., SuperBase)	Ignores words with mixed case. Upper and lower case within a word is acceptable.
Ignore domain names (e.g., xyz.com)	Ignores domain names, which are not contained in the dictionary.
Report double words (e.g., the the)	Reports double words as errors, so that the second word is highlighted and can be deleted.
Case sensitive	Looks for case-sensitive words. For example, if the month of april is all lower case, suggest the correct spelling of April.
Phonetic suggestions	Suggests words that sound the same as the misspelled word that has been identified.
Typographical suggestions	When a word has been identified as being misspelled, suggests a list of similar words with their correct spelling from within the dictionary.
Suggest split words	Suggests words that should be split. For example, if the spell checker identifies a word, such as follow-up, that should be split, suggest correctly splitting up the word into follow up.
Auto correct	When the spell checker identifies a misspelled word and the operator clicks change, automatically corrects the word to the suggested word in the list.
Main dictionary language	If there are several language versions of a dictionary within the spell checker, selects the main dictionary language to be used, such as English.
Suggestions	When the spell checker looks for suggestions from the dictionary for misspelled words, uses one of the following processes to determine how accurately and efficiently the suggestions should be found. ■ **Fast but less accurate**—use fast search with suggested results not being totally accurate. ■ **Moderately fast and accurate**—use a moderate search, which results in a more accurate list of suggestions. ■ **Slow but accurate**—use a slow search and have the results be as accurate as possible.

Dictionary options

Dictionaries are what the spell checker refers to when checking text for misspelled words within an extended text field. You can add, delete, import, and export words and word files. You can also add, create, and remove dictionaries so that you have multiple dictionaries, custom dictionaries, or a single dictionary.

Note: English only language dictionaries are supported. Multiple language dictionaries are not supported at this time.

To work with dictionaries:

▶ Open the Spell Check Edit option and click **Dictionaries** in the Check Spelling dialog box.

- Click **Add File** to browse through your directories and add dictionary files to the Spell Check Edit option within your client.

Note: You can add a file, but this option is not supported at this time.

- Click **New File** to create a custom dictionary and add it to the Spell Check Edit option within your client.
- Click **Remove File** to delete the dictionary from your Spell Check Edit option files.

Note: Be sure you are removing the correct file when you click **Remove File**, as the file is automatically deleted without any warning.

Preferences

The *Preferences* Edit menu option contains *Accessibility* options that are available only to the Java clients. Java clients can choose to use the *Accessibility* options to gain optimum use of the ServiceCenter system.

To access the *Preferences* Edit options:

1 Choose **Edit>Preferences>Accessibility**.

2 From within the *Accessibility* Edit menu option, you have three choices:

a **Access All Fields**

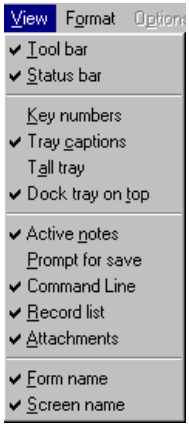
Check this option to enable installed assistive technologies to read through tabbed fields, including read-only fields, on any ServiceCenter form, such as an Incident ticket.

b Disable Animation

Check this option to disable the blinking status light and messages within the status bar. This helps to ease any distractions caused by the blinking status light or flashing messages within the status bar.

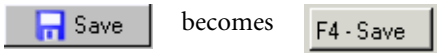
c Ignore Server Tab Order

If this option is selected, the hard-coded tab order is overridden, allowing the user to use top-down, left-to-right tabbing.



View Menu

The **View** menu allows you to configure the features displayed in each ServiceCenter window. When an option is selected, a check mark (✓) displays next to the option. The View menu contains the following options:

View Menu Option	Description
Toolbar	Displays the ServiceCenter toolbar below the menus.
Status bar	Displays the ServiceCenter status bar at the bottom of the window. The status bar is discussed later in this section.
Key numbers	Replaces the icons on the system tray buttons with the function key (F Key) number and a label for each option. For example:  becomes
Tray captions	Displays captions on the system tray buttons.
Tall tray	Changes the height of the system tray from one row of buttons to two rows of buttons.
Dock tray on top	Places the system tray at the top of the form. If this option is not chosen, the system tray sits above the status bar at the bottom of the form.
Active notes	Instructs ServiceCenter to display the messages in a pop-up window. Active Notes must be selected for the ServiceCenter **Publish and Subscribe** feature to update messages, marquees, and graphs. Publish and Subscribe is discussed in the *System Tailoring* guide. If this option is not chosen, the messages appears at the bottom of the form.
Prompt for save	Instructs a ServiceCenter client session to ask if you want to save any unsaved changes before exiting the record.

View Menu Option	Description
Command Line	Displays the ServiceCenter command prompt to enter commands for accessing files, running applications, queries, scripts, and command shortcuts, searching command shortcuts, and changing the currently-active menu in Menu Manager. This menu option is only displayed for a system administrator.
Record list	Displays the QBE Record list in a split interface at the top of a record, allowing the user to quickly browse records without switching forms. Clearing Record list from the View menu causes the QBE Record list to display in a separate window.
Attachments	Enables using and accessing attachments in forms.
Form name	Displays the name of the current form in the status bar.
Screen name	Displays the current screen name in parentheses in the status bar.

Format Menu

The **Format** menu has one option: **Font**. This option displays a dialog box that allows you to change the font display in all the ServiceCenter forms in your current client session.

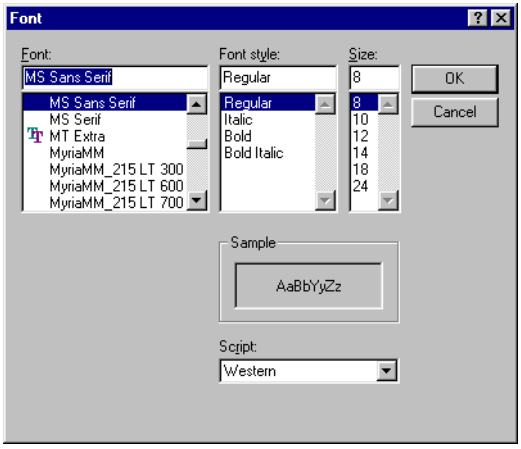


Figure 2-13: Font dialog box

The Font dialog box contains the following fields:

Font Dialog Box Option	Description
Font	Sets a new font.
Font Style	Specifies how the font displays: Regular, **Bold**, *Italic,* or ***Bold Italic***.
Size	Sets the font point size (the font dimensions).
Sample	Provides an example of the selected font settings.
Script	Not applicable.

Note: The availability of fonts depends on what fonts are installed on your system. How a font displays depends on the type and size of the font.

Sans serif fonts have no *tails* on the characters. Helvetica is a sans serif font.

Serif fonts have tails. The font used in this guide, New Century Schoolbook, is a serif font. Times is a common serif font that is used on many systems.

Variable fonts have different widths for each character. Helvetica and New Century Schoolbook are variable fonts.

Fixed fonts have the same width for each character. `Courier` is a fixed font.

Using font styles such as Bold or Italic also affects the spacing of the characters on a form. If labels are being clipped in the forms, select a different font, style, or size.

Options Menu

The selections available under the **Options** menu are dependent on the current ServiceCenter application and user profile record settings. The Options menu offers additional functionality tailored to specific forms.

Refer to the individual application chapters for information about **Options** menus.

List Options Menu

Record List must be selected in the **View** menu for the **List Options** menu to be active. If Record List is selected, the **List Options** menu becomes available when a list of records is being viewed. The selections available under **List Options** are used to control the list of records, and are dependent on the current ServiceCenter application.

If **Record List** is cleared in the **View** menu, some of the selections available under the **List Options** menu may be available under the **Options** menu.

Help Menu

The Help menu provides online information about ServiceCenter. The Help menu contains two options:

Help Menu Option	Description
Help on Field	Provides general, online information about the field where the cursor is located. A box at the bottom of the form displays the help information. Press F3 (end) to exit Help and return to the current form.
About ServiceCenter	Displays a window providing the ServiceCenter release number plus network, system, and hardware information about the client and server. Click **OK** to close the window.

Toolbar Buttons

In addition to the Cut, Copy, Paste, and Edit window buttons, also available as Edit Menu options, and the Help On field button, available as a Help Menu option, the toolbar includes the following buttons:

Toolbar Button	Description
 **View Messages**	Displays a message pop-up window showing any messages currently in the status bar at the bottom of the form. An asterisk (*) preceding a message in the status bar indicates the message has multiple lines. To see all message lines in their entirety, click **View Messages**. Active when error, alert, or warning messages are issued, but not for status messages, such as **Ready**. The color of this visual icon indicates the type of message waiting: Blue is a call to action, black is informational, and red indicates an error message. When messaging is active, ServiceCenter automatically displays the message window when a message is issued.
 **Close Application**	Returns you to the previous ServiceCenter application you were running. This option avoids repeatedly clicking **Back** and operates in a hierarchical method. If you are down one level from the Home menu, you are returned to the Home menu. If you are in a utility or application within one of the primary applications or utilities, such as Incident Management, you are returned to the previous level of the application or utility. For example, if you are searching the knowledge base from an incident ticket, Close Application returns you to the incident ticket.

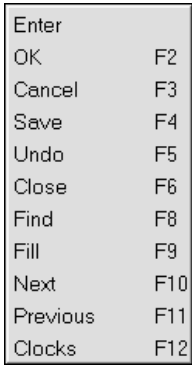
System Tray Buttons, Function Keys, and Pop-Up Menus

The system tray buttons represent standard ServiceCenter functions that are available for the currently displayed form. These options are also available by using function keys.

Note: Functions accessed by system tray buttons and function keys can also be launched from the pop-up menu, which is accessed by clicking the right mouse button.

	Function	Description
	OK	Saves the information in the current form or executes the action to be taken by the current form, then exits to the previous form.
	Add (F2)	Creates a new record from the information in the current form.
	New (F1)	Opens a form to create a new record.
	Refresh (F2)	Updates queues.
	Logout (F3)	Logs you out of the current ServiceCenter client session (from the Home menu only).
	Back (F3)	Returns you to the previous form.
	Cancel (F3)	Returns you to the previous form without saving any changes you have made to the record.
	Save (F4)	Saves any changes you have made to the current form. Save is used in some applications to save a new record.
	Delete (F5)	Deletes the active record.
	Search (F6)	Searches (queries) the ServiceCenter database for a record matching the search criteria.
	F7	Displays a list of related views (forms) for the currently accessed application or utility.

	Function	Description
	Find (F8)	Searches the database for values for the field where the cursor is placed. the record for the resulting information displays. A list of possible records displays if multiple records match the search criteria. If no matching records are found, an error message displays. Refer to *Fill and Find Functions* on page 68.
	Clear	Removes any data that has been entered in fields.
	Fill (F9)	Searches for values to populate the field where the cursor is placed. A list displays with possible entries for the field. The Fill function automatically fills the selected field and any linked fields with the appropriate information. For example, this feature populates an incident ticket with asset information when a Logical Name is specified. ServiceCenter looks at a *link record* for the information required. If no matching records are found, an error message displays. Refer to *Fill and Find Functions* on page 68.
	Next (F10)	Access the next record.
	Previous (F11)	Access the previous record.



A pop-up menu with options displays by holding down the right mouse button. Options available vary, depending on the form.

Function keys (F keys) also access these options. The function keys for each option are displayed in the pop-up menu.

The function key numbers can be displayed on the system tray buttons by choosing **View>Key numbers** from the menu bar.

You can also access a pop-up menu by right-clicking a field (such as the **Contact** field) that contains data that has been selected.

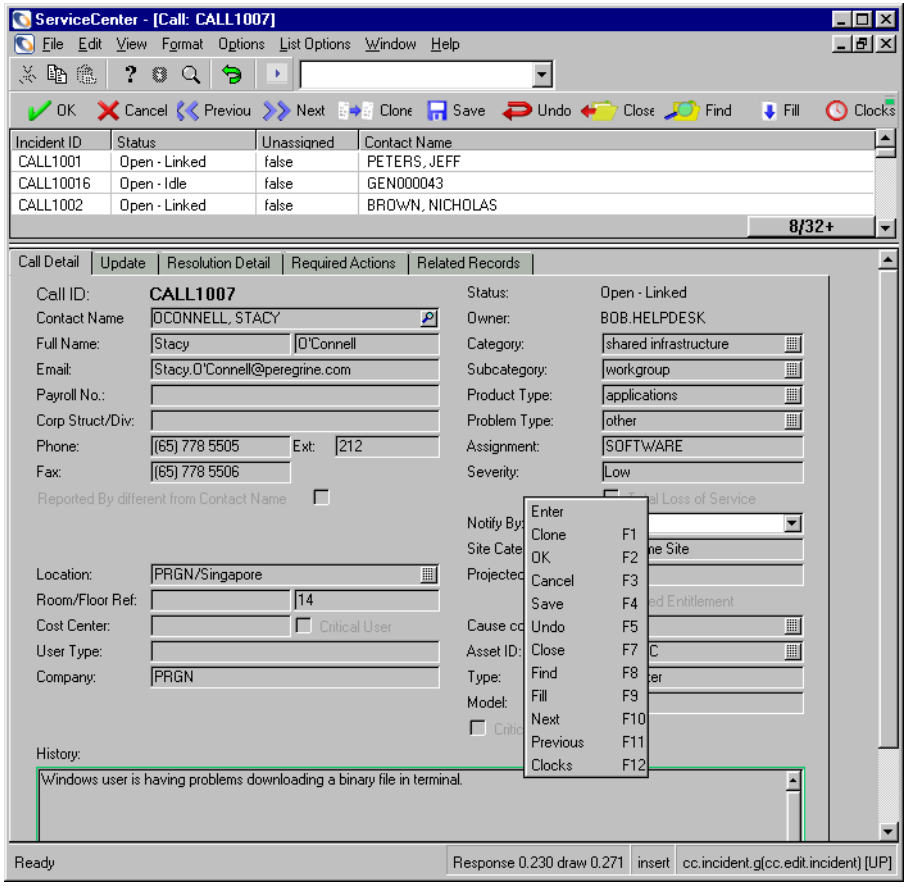


Figure 2-14: ServiceCenter Window with a Pop-up Menu Displayed

You can then cut or copy the selected text and paste the text into another field, including a field on another form.

Field Buttons

ServiceCenter forms contain the following four field buttons, which perform the designated function for the associated field:

Button	Function
Fill button	Activates the Fill function for a field. If partial information is entered, the appropriate records are accessed to fill in the associated information.
Down arrow	Accesses a drop-down list with selections for a combination box.
Find	Accesses a list of all possible entries for a field.
Dot	Accesses a QBE Record list to change a value in a read-only field.

Status Bar

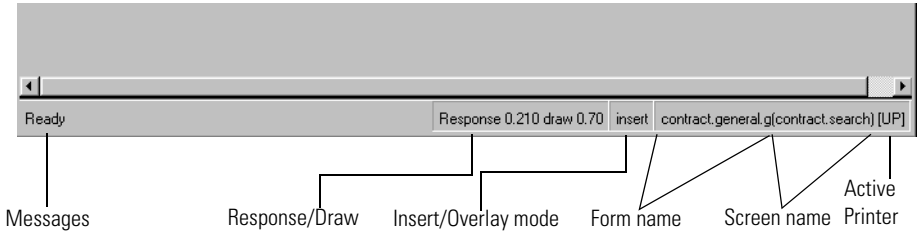


Figure 2-15: Status Bar

Status

When the Status bar option is selected in the **View** menu, the following information displays for both ServiceCenter and the current form.

The status bar displays:

- Displays error and informational messages
- Indicates whether insert mode is active on the user's keyboard
- Provides the current form name
- Provides the current screen name
- Indicates which printer is active

The status area displays the status of the current form, error messages, and ServiceCenter information. The status area tells the user what is or is not happening in the system. For example, the status area can read:

- "Ready"—the system is ready for user input.
- "Please specify a Category"—a required field, Category, was not populated.
- "Invalid syntax for query"—a query was entered improperly.

Different icons appear in the status area depending on the type of message displayed. For example, if a required field has not been populated, a red exclamation point displays.

The status area only displays a single line of text. If a message has multiple lines of text, an asterisk appears at the beginning of the message. The entire contents of the message area can be viewed in the Message Popup Window by selecting the View Messages button located in the tool bar or clicking the icon in the status bar.

Response/Draw

Toggles the Response Time Monitor (RTM) parameter and activates the statistics in the status bar of the current form.

- Response—This is the response time of the server and the time spent executing the RAD code when the system leaves one form and enters another.
- Draw—This is the time the system takes to redraw the form when changing the forms.

Insert/Overlay

Indicates if the keyboard is in the Insert or Overlay mode for entering data in the form.

- Insert mode allows you to add new text without disturbing the text that is currently in the field.
- Overlay mode allows you to type over existing text.

You can toggle between the modes using the Insert key.

Form and Screen Name

ServiceCenter has both forms and screens.

- Form name—refers to the format file that stores the attributes of the form being viewed.
- Screen name—refers to the display screen file that defines the functionality of the form displayed. A user can access this record to tailor each form individually.

The name of the current form displays on the right side of the status bar. The screen name displays to the right of the form name in parentheses.

It is possible to toggle on and off in the **View** menu the form name and screen name.

Printer Selection

The letter immediately to the right of the form or screen name indicates the printing set up.

- [S]—Printing from this session outputs to the server's default printer.
- [P]—Printing from this session outputs to the client's default printer.

It is possible to toggle between the two printing options.

- Press **Ctrl** + **Shift** + **P**.
- Choose **File**>**Printing Options**.

Fields

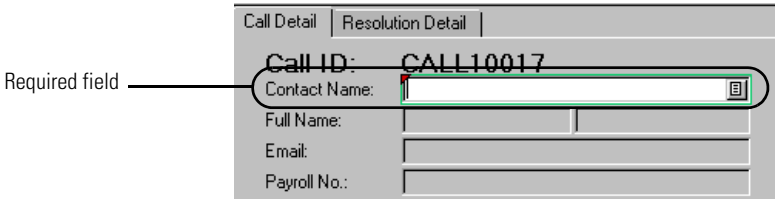
Fields are areas of the form where pertinent information for that record appears. That information might be an asset name or a description of a problem. You can enter information into some of these fields while other fields are filled in automatically by ServiceCenter. You can determine the type of a field by its display.

Data entered and displayed in the fields is stored in the appropriate ServiceCenter records.

Required Fields

Required fields are those fields necessary to complete a form. For example, if you are opening an incident ticket, a category is required.

These fields are denoted by a red triangle in the upper left-hand corner of the field.



If you do not enter data in this field before saving the record, an error message displays. In some forms, a list of possible values displays.

Protected Fields

Protected fields are those fields you cannot modify. Using the incident ticket as an example, the incident number field cannot be changed when you have accessed an existing incident ticket.

Which fields are protected is dependent on the form you are in and the configuration set up for you. Although you can place your cursor in a protected field, you cannot edit that field.

Working with Multiple Sessions

Working with multiple sessions on your desktop is a handy and efficient option that allows you to perform multiple tasks within the same client's desktop.

> For example: You can open a call in Service Management, search for changes in Change Management, or open a new incident in Incident Management, all within the same client.

To maneuver to and from each task, click the window you wish to make active to bring it to the front, allowing you to work in the selected task. When you are ready to move to a different session, either minimize the window you are currently in or click the next window to make it active and bring it to the top of your tasks.

Figure 2-16 displays working within multiple sessions in the Java client. For the Java client, select the sessions you would like to open from the tree navigation.

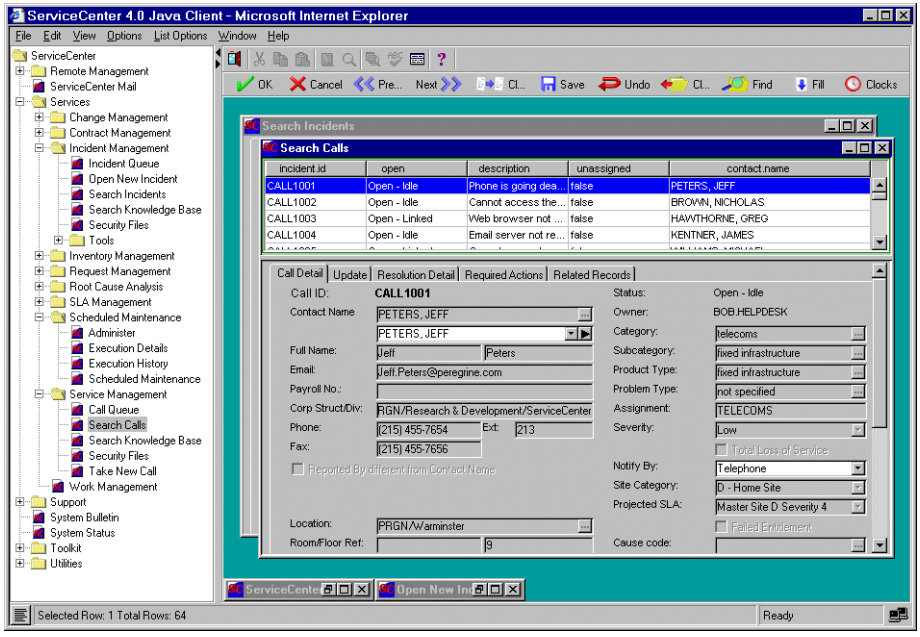


Figure 2-16: Working with Multiple Sessions in the Java Client

Multiple Display Interface (MDI mode) versus Single Display Interface (SDI mode)

In Multiple Display Interface (MDI mode), ServiceCenter can display multiple ServiceCenter windows within an overall client session window. The menu bar remains displayed at the top of the main ServiceCenter window, and each form displays within the window. The system tray and toolbar display on each form within the window (Figure 2-18 on page 63), not at the top of the main ServiceCenter window as shown in the Single Display Interface (SDI) mode (Figure 2-17 on page 62).

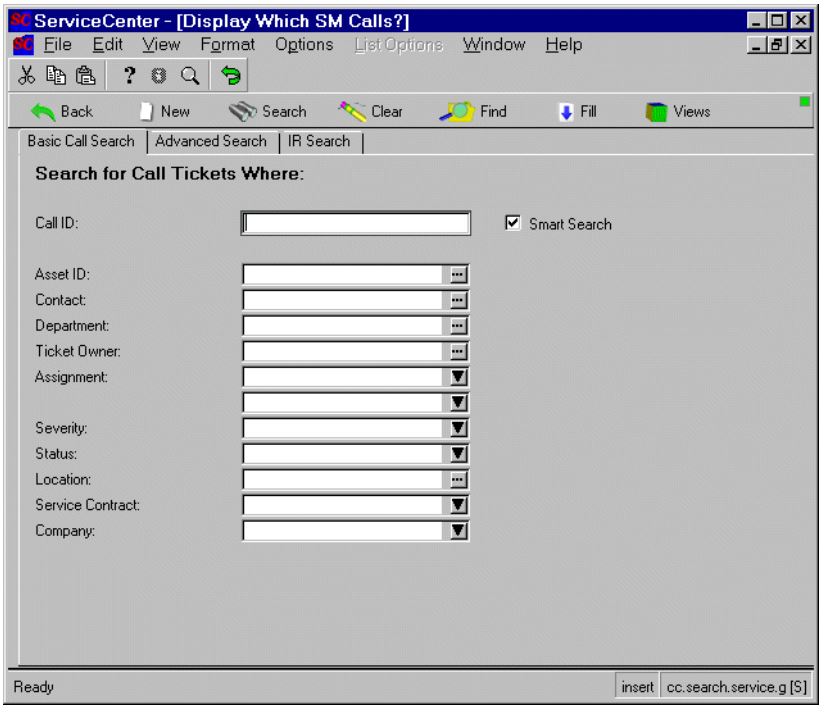


Figure 2-17: ServiceCenter in SDI Mode

If you wish to change to SDI mode, contact your system administrator to have the MDI feature disabled.

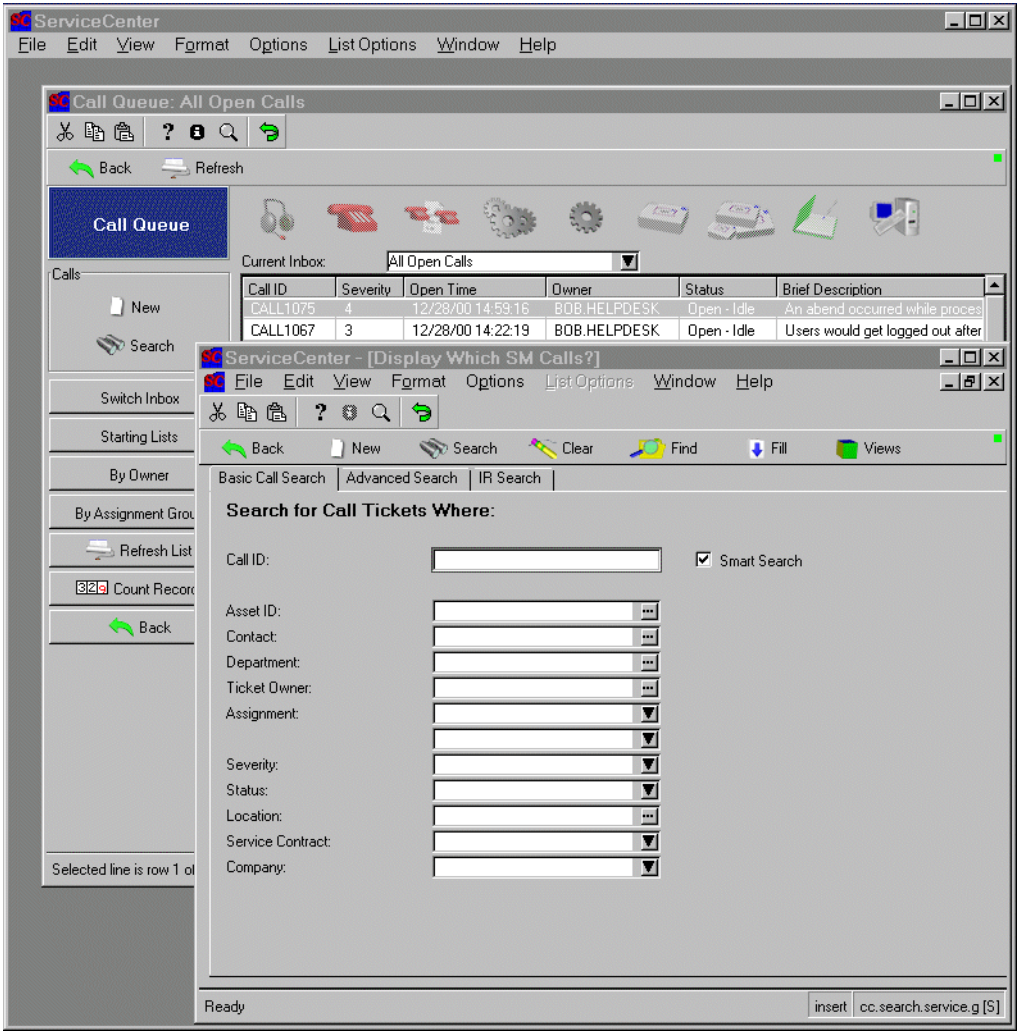


Figure 2-18: ServiceCenter in MDI Mode

Record List mode versus Document mode

Users usually want QBE Record lists to display together above a form displaying data from one record on the list (Record List mode). Information from the highlighted list entry displays in the body of the form.

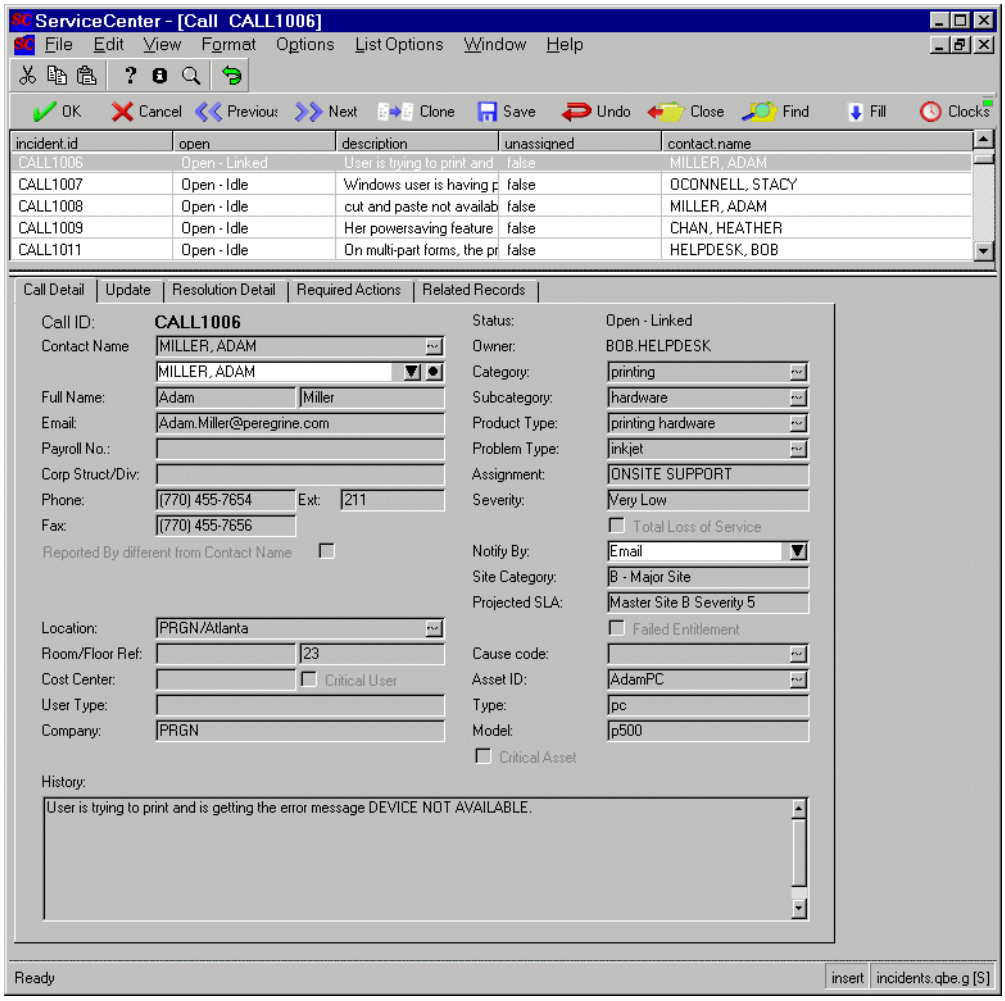


Figure 2-19: QBE in Record List Mode

If you prefer, you can change the interface to display the QBE Record list in a separate window.

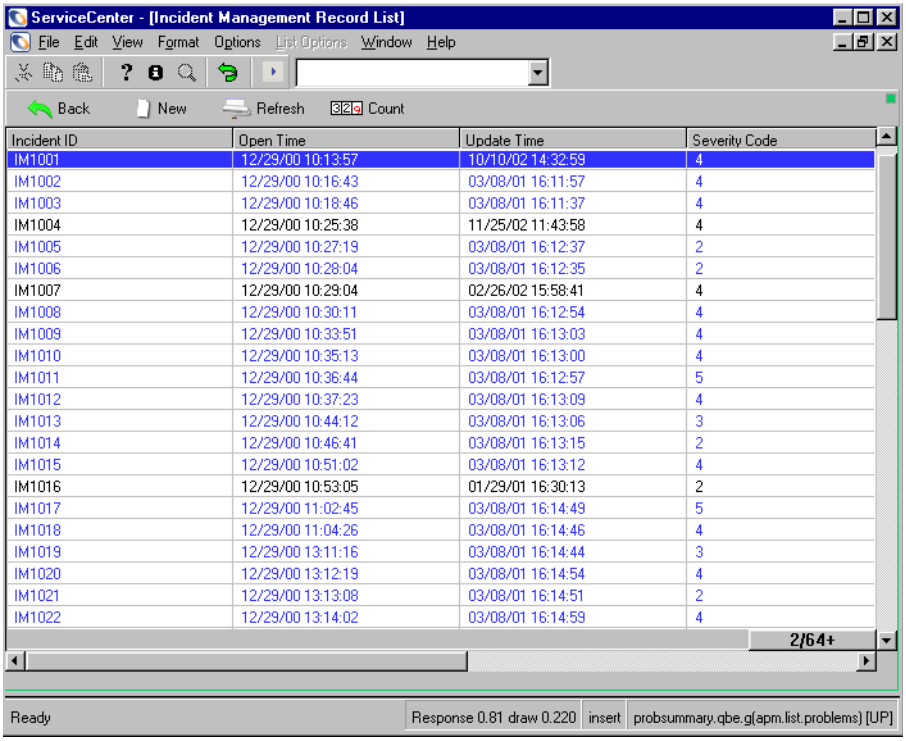


Figure 2-20: QBE list with Record List Mode Turned Off (Document Mode)

To turn off the QBE Record List mode:

1 Search for a record (for example, an incident ticket or call report) in any of the applications (for example, Incident Management or Service Management).

The record displays with the QBE list at the top of the form, as shown in Figure 2-19 on page 64.

2 Choose **View>Record list** to clear the option, which is selected.

3 Click **Cancel** or **Back** to return to the previous form.

The QBE list is now displayed in a separate window, as shown in Figure 2-20 on page 65. This change is saved when you log out. The change affects only your account.

You can change back to QBE Record List mode at any time by choosing **View>Record list** on the menu.

Automatic Refresh of Record List

The record lists can be updated to display records that have been added. After a record is added you must close the function that is being used and re-open the function to display the added record. See the *System Administrator's Guide* for more details about this feature.

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 helps you easily find the information you need.

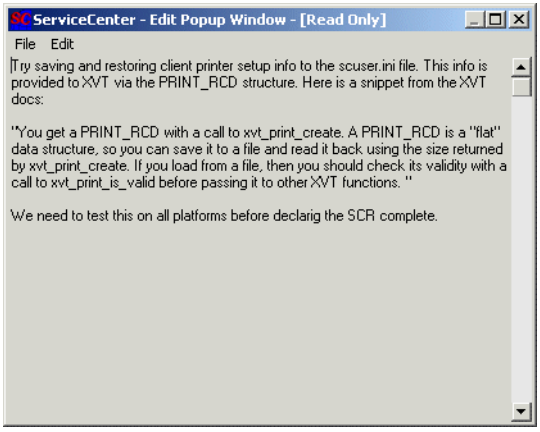
When you're in an extended text field, such as a lengthy description of an incident in Incident Management, you can initiate a search within that field to find the information you need.

To initiate a search of a text field:

1 Place your cursor in the extended text field you want to search.

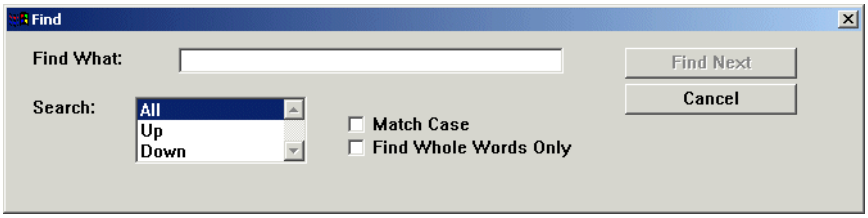
2 Click **Edit window**.

An editing shortcut window displays, displaying the selected text.



3 Choose **Edit**>**Find** or press **Ctrl** + **F**.

A dialog box for searching the text field displays.



4 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 are not located.).
Cancel	Allows you to cancel the search and return to the View Messages window.

5 Click **Find Next**.

The first instance of the search is highlighted.

6 Click **Find Next** again to find the next instance of the search.

7 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.

Case-Insensitive Mode in P4 Database

Case-insensitive mode exists so that you can enter user information into the P4 database without having to consider the case sensitivity of the alphabetic lettering. This optional mode can be very useful, since you do not have to be concerned with whether or not database information has been entered in all uppercase, all lowercase, or first letter only as uppercase, etc. Before you consider turning on the case-insensitive mode, read all about it in the *Database Management and Administration Guide,* so that you are aware of the ramifications of turning on, and back off again, this optional mode.

Fill and Find Functions

The Fill and Find functions query the database for information, such as component or location. The query can be done from another ServiceCenter application. For example, data from an asset record in Asset Management can be accessed from an incident ticket in Incident Management.

Note: The down arrow to the right of a field, accesses a drop-down list of possible entries for a field.

Fill Function

Fill Functionality for a Single Field

The **Fill** function allows you to quickly enter data into a record, such as an incident ticket. If partial information is entered in a field, the Fill function finds the appropriate record and adds any related information. For example, if you enter Br in a name field and click **Fill**, ServiceCenter finds the record for Nicholas Brown, along with the assets linked to his contacts record.

To use the Fill function for a single field:

1 Place the cursor in the field that you want to fill.

2 Do one of the following:

- Click **Fill** to the right of the field, if available.

- Click **Fill** in the menu bar.
- Press **F9**.

A QBE Record list displays with possible entries for the selected field.

Note: If Fill functionality isn't available for a field, you receive the following error message: *No link exists for this field; fill function cannot be performed.*

3 Double-click the record you want to use.

The field and any other related fields are filled.

Fill Functionality for Array Fields

The Fill function for array fields allows you to select multiple values for the array.

To use the Fill function for a multiple fields:

1 Place the cursor in the first field that you want to fill.

2 Click **Fill** or press **F9**.

3 Select the appropriate record(s) using one of the following methods:

- Click **Fill All** if you want all records added.
- Select all records one at a time by clicking each row that contains the record you want to add.
- Choose **Options**>**Toggle Multiple Selection**. Toggle Multiple Selection allows you to select more than one record at a time.

  When Toggle Multiple Selection is activated, the title bar reads, "Select Related Records Multiple Selections are ENABLED." (If the Toggle Multiple Selection is not activated, the title bar reads, Select Related Records Multiple Selections are DISABLED.")

  Each time you select a record, a message displays in the status line indicating, *# records filled*, where # is the total number of records selected thus far.

Find Function

The **Find** function allows you to locate data for selected fields by accessing a related field in a different ServiceCenter file. Certain fields have link records that allow Find to locate related details for that field. **Find** locates and associates records for fields, such as asset, logical or contact names, locations, vendors, or users (for example, **Reported By** in an incident ticket).

A record can be viewed or modified within the application in which it was created. As an end-user, your options are determined by the rights assigned by your ServiceCenter administrator. For example, you may be able only to view, not modify, Asset Management records.

To use the Find function:

1. In any editable form, place the cursor in the field where you want to view the related ServiceCenter records. You can enter partial data in a field to narrow the search.
2. Click **Find**, or press **F8**.

   A record with information related to that field displays.

   If no records are found, or the selected field is not linked to the Find function, an error message displays in the status bar.

The result of a Find query run on a **Reported by** field in a call report is shown in *The Contacts File* on page 547. The Contact Information form displays with information about the name (Brown) entered in the **Reported by** field on the call report.

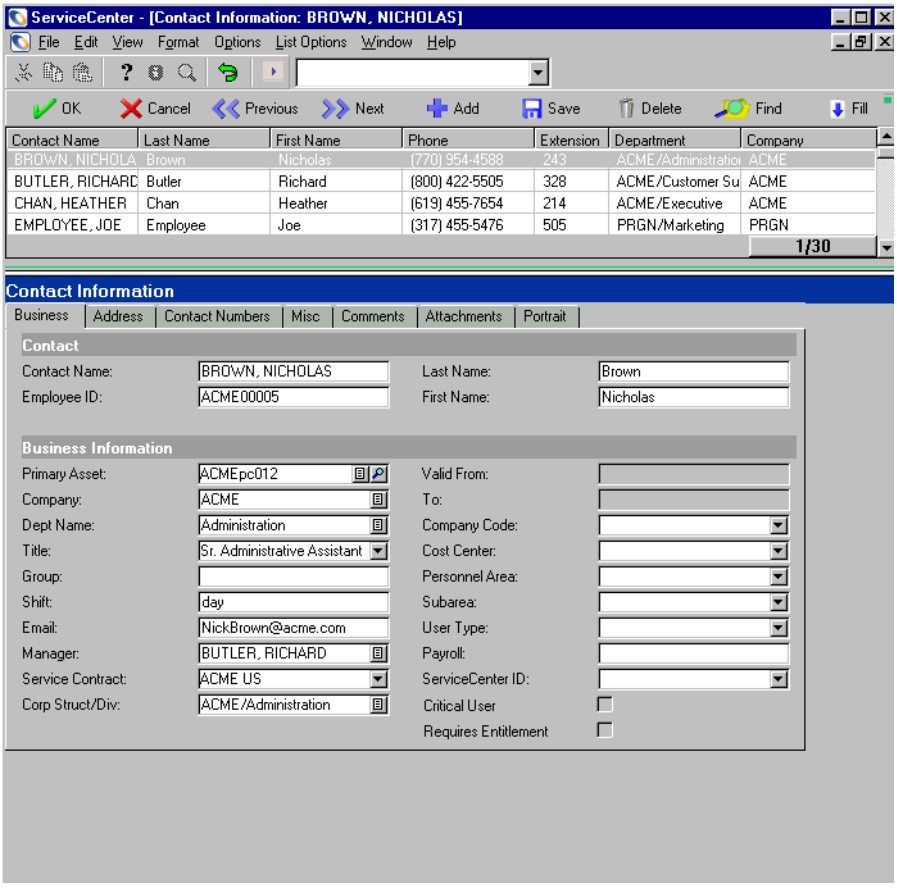


Figure 2-21: Contact Information Record

To leave the related record, do one of the following:

- Click **Cancel**, **OK**, or **Close**.

  -or-

- Press **F3** to return to the form from which you ran Find.

Note: The information from the record is *not* placed in the form from which you accessed Find. Use Fill to enter data automatically.

Changing the Column Headings in a QBE Record List

You can change the information included in a record list by changing the columns that are displayed in the list.

To change the columns in a QBE Record list:

1 With the QBE Record list displayed that you want to modify, choose **List Options>Modify Columns** (or the Options menu if Record List mode is not active).

A form displays that allows you to select the columns you want to change in the record list.

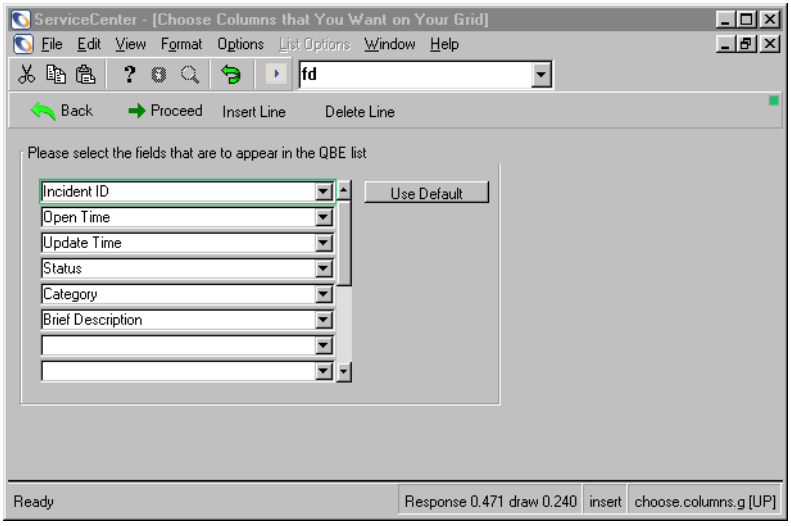


Figure 2-22: Form for Modifying QBE Record List Columns

2 Click the **Down arrow** for each column you want to change, then select the new heading from the drop-down list.

3 If you want to add a column, select a column heading from the drop-down list next to a blank field.

4 If you want to add a column heading between two existing headings, place the cursor in the field below where you want to add a new line. Click **Insert Line**.

5 If you want to delete an existing line, place the cursor in the field you want to delete. Click **Delete Line**.

6 When you have completed your selections, click **Proceed**.

The QBE Record list displays with new column headings and related information filled into the list (Figure 2-23 on page 73).

-or-

Click **Back** to cancel your selections.

Note: The changes you make to the columns are saved when you log out. These changes are made to your account only and do not affect other users.

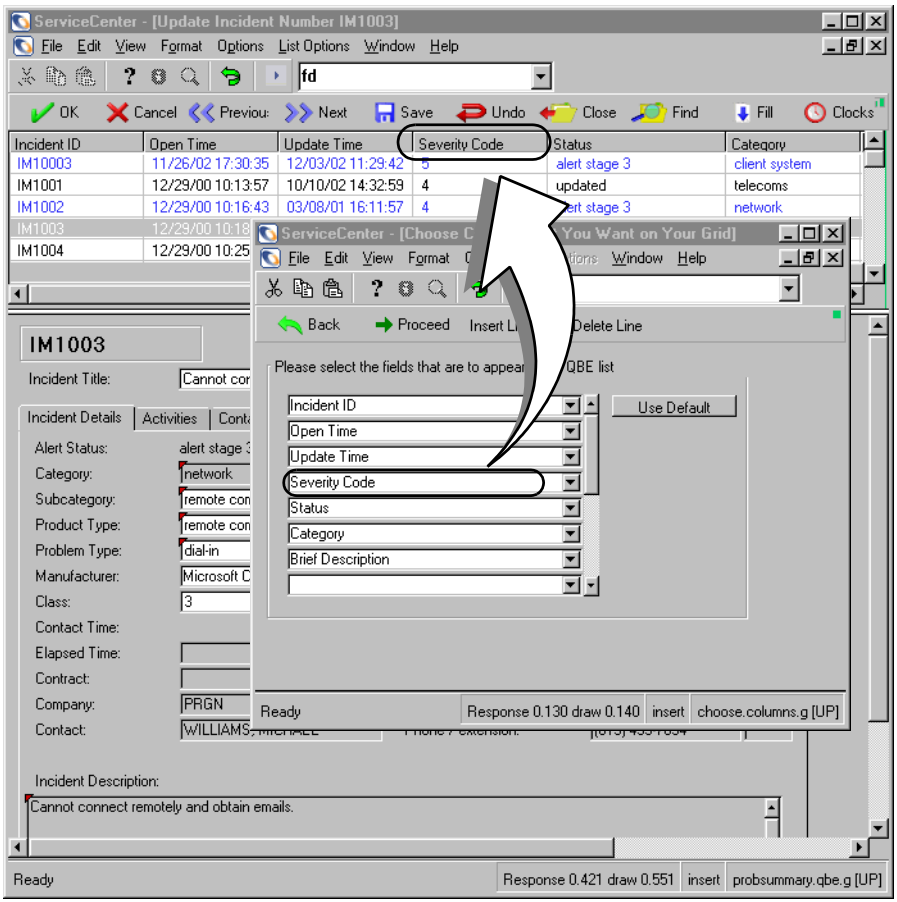


Figure 2-23: Incident Ticket with Modified Column Heading

To return to the default column settings:

1. With the QBE Record list displayed, choose **List Options>Modify Columns** from the menu.
2. Click **Use Default**.

   The QBE Record list displays showing the default column headings.

Navigating Tabs

Many ServiceCenter forms use tabs. Instead of opening multiple forms, you can click on a tab to get a specific area of information in a record.

For example, if you access the Asset Management PC asset form, you see tabs for System Summary, Components, Software, and so forth.

To select a tab or switch between tabs:

- Click a tab.
- Press **<Shift><Ctrl>I** to navigate between tabs.
- Press the Tab key to move to the first tab. You can then use the keyboard arrow keys to navigate back and forth between tabs.

- Use the arrows at the end of the tabs to access more tabs.

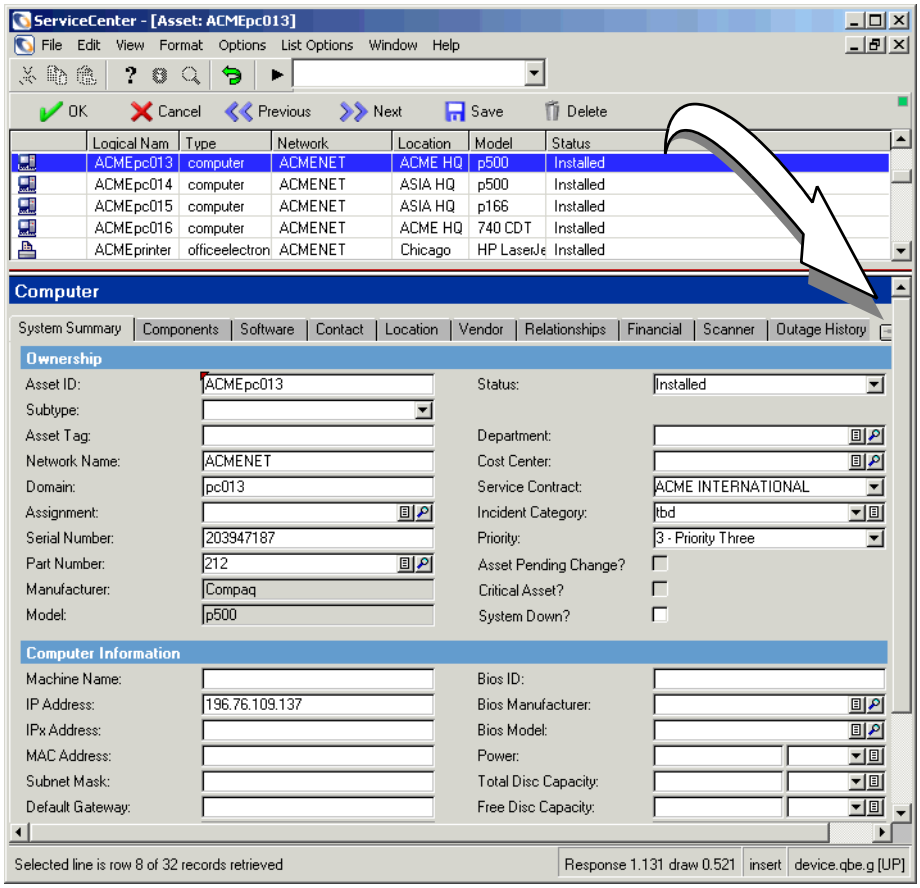


Figure 2-24: Sample Asset form with Tabs

Bitmaps

ServiceCenter can store bitmaps directly into the ServiceCenter database, regardless of the type of physical database being used. Whether you are trying to attach a picture of a location in the Attachments tab of a Change ticket or trying to attach an Excel spread sheet to a new contact record, the option to attach and save these bitmaps is available. Your forms can be set up to attach bitmaps by going into the Forms Designer utility. See the *System Tailoring* guide for information about designing your forms to have the correct properties set to attach bitmaps.

Right-Click Options for the Java-Based Client

When you right-click a bitmap within a Java-based client, you are presented with the following options:

- **Open**—opens the bitmap file.
- **Open With**—opens the bitmap file with the application of your choice.
- **Save As**—saves the bitmap file into the directory/file of your choice. You are given access to your computer neighborhood where you can browse to find the location of choice to save and store a copy of this file.
- **Copy**
- **Cut**
- **Delete**
- **Insert File**
- **Add**
- **OK**
- **Cancel**

Inboxes

Inboxes allow you to save queries to quickly and easily conduct a search with the same parameters for any file within the system. Frequently used inboxes can be saved within the **Current Inbox** list. See the *Application Administration Guide* for more information on maintaining Inboxes. As a way of sorting the information within queries, Inboxes are based on parent/child relationships. All queries are filtered through the parent query. For example, a child query of *Open Incidents Assigned to Me* filters through the parent query *All Open Incidents*.

This section gives instructions for creating and using inboxes. Specific instructions for application inboxes are included in the chapters for each application. Also see the *Application Administration Guide* for information on maintaining inboxes.

Note: Inboxes are available for all files whether you are working within a utility or an application. By default, inboxes are automatically set up for Service Management, Incident Management, Root Cause Analysis, Change Management, and Request Management. Also, inboxes are only available to you in the application where your user profiles allow their use.

Creating an Inbox Definition

Inboxes are used in most ServiceCenter applications and can be defined for any file within ServiceCenter.

Once inboxes are established, queries can be viewed and modified within an inbox. Queries can be saved to update the contents of an inbox. For example, you may want to search for all incident tickets with an alert status of Deadline Alert for a specified user. Instead of configuring these search parameters each time, click **Switch Inbox** and select a different inbox or go to your **Current Inbox** list for quick and easy access.

To create a new inbox:

1 Click **Search** in a menu or queue.

A Search form displays. An example of an Incident Management search form with basic search fields displayed is shown in Figure 2-25.

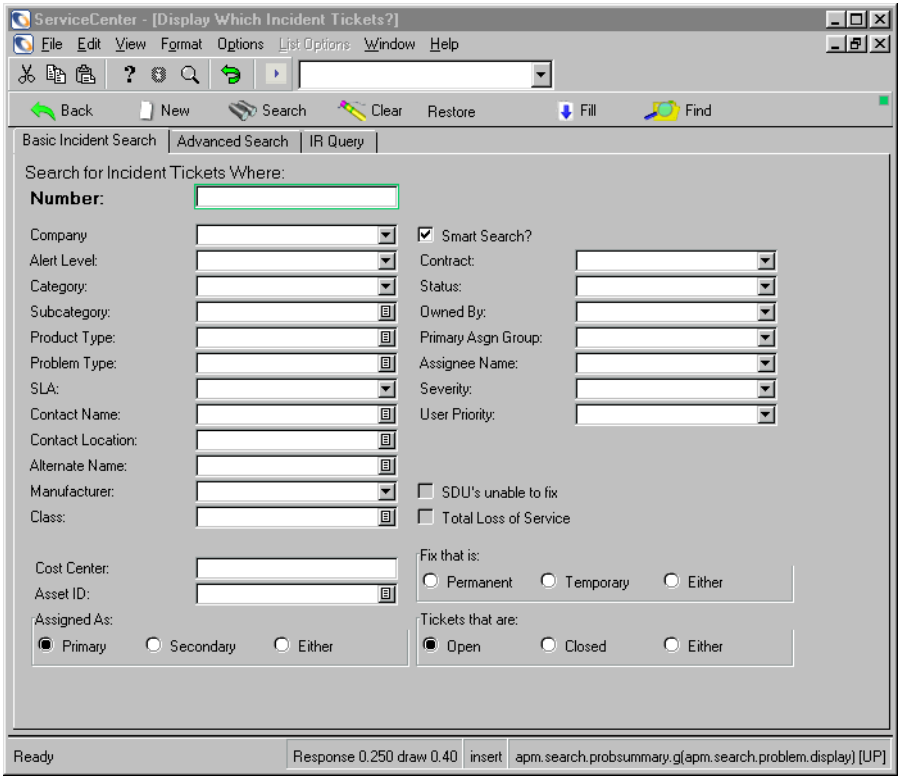


Figure 2-25: Incident Management Basic Search Fields

2 Enter search parameters in the Basic Search, Advanced Search, or IR Query tabs. See *Search Incident Management* on page 206 for details on the search tabs and descriptions of their fields.

3 Click **Search** or press **Enter**.

A QBE Record list of matching records displays, with the first record in the list displayed in the form.

Note: If only one record matches the search, that record displays. If no matching records are found, a message displays stating *No Records Found*.

4 Choose **List Options>Save List as Inbox** (if Record List is selected in the View menu) or choose **Options>Save as Inbox** (if Record List is cleared in the View menu).

Note: This option only displays if your User Profile for this application allows you to create inboxes.

The following question displays in a pop-up window: *Save this record as an inbox?*

5 Click **Yes**.

An inbox edit form displays. The **This is an inbox of type** field is filled in automatically.

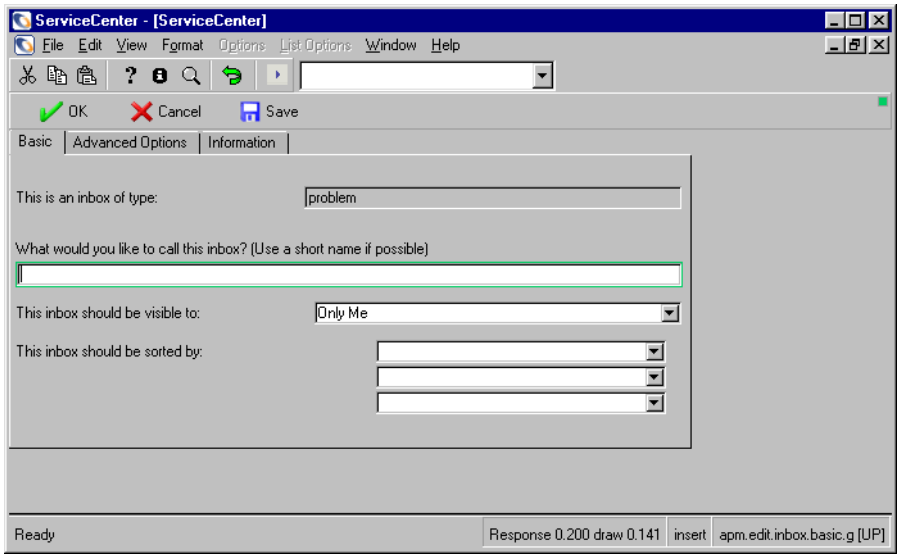


Figure 2-26: Incident Management Inbox Edit form

6 Enter a name for the inbox in the **What would you like to call this inbox? (Use a short name if possible)** field.

7 From the **This inbox should be visible to** field drop-down list, select which users can see the inbox:

- Only Me—only the creator (you, the user) of the inbox. This is the default setting.
- All Users—all users, according to application, such as all IM users.

8 Advanced administrators only: in the **This inbox should be sorted by** field, specify a sort sequence that matches an existing key, if needed to select the appropriate key for this query. Use this option only if truly needed and if you understand the file's key structure enough to ensure a fully keyed query.

9 Click the Advanced Options tab.

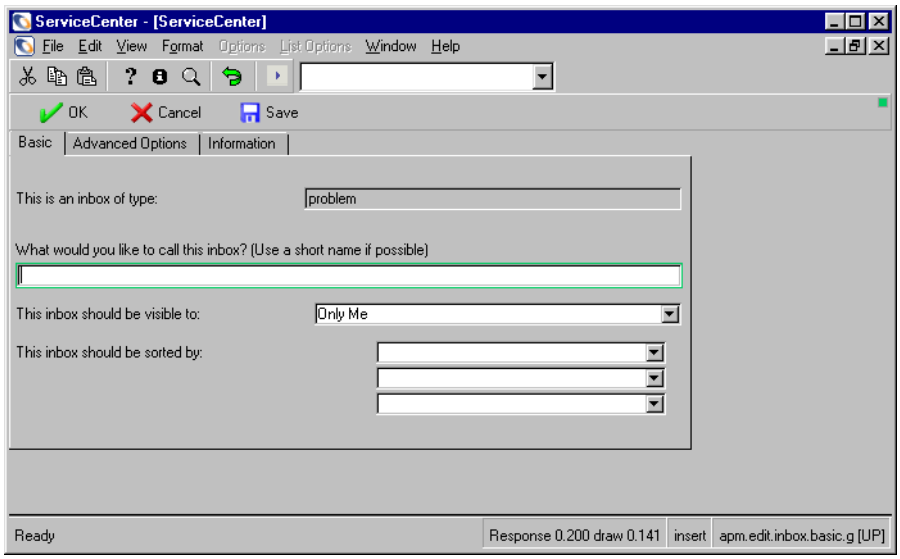


Figure 2-27: Inbox Edit form—Advanced Options tab

The **This inbox is defined by** (**Only advanced users should change this**) field displays the syntax that defines the query. A default setting of *true* is automatically placed in this field.

Note: This field should be changed only by an advanced user with knowledge of query language.
If the query is not fully keyed (doesn't have a matching key in the dbdict), you can experience server performance problems with ServiceCenter. Make sure that inbox queries are tuned for your database.

The **Normalize Date Fields** option (default setting) allows Incident Management to modify a query to search from the current date, not the date the inbox was created. For example, if you create an inbox on March 1 to look for incident tickets opened before March 1, and today is March 7, the query is normalized to look for tickets one week from the current date because one week has passed since the inbox was created.

The **Use Literal Date Fields** option, if chosen, causes the inbox to always query from the date it was created. If you created an inbox on March 1, 2001 to look for tickets before that day, whenever this inbox is accessed, the query looks for tickets before March 1, 2001.

10 Click the Information tab if you want detailed descriptions of all the fields in all the tabs on this form.

11 Click **Save**, or press **F2**.

A message displays, stating that the inbox definition has been added.

Note: To view the new inbox, you must exit your ServiceCenter client and log on again.

Using Inboxes

Inboxes are used within queues. Except for buttons that are specific to an application, each queue contains the same buttons. Components of a queue are shown in Figure 2-28.

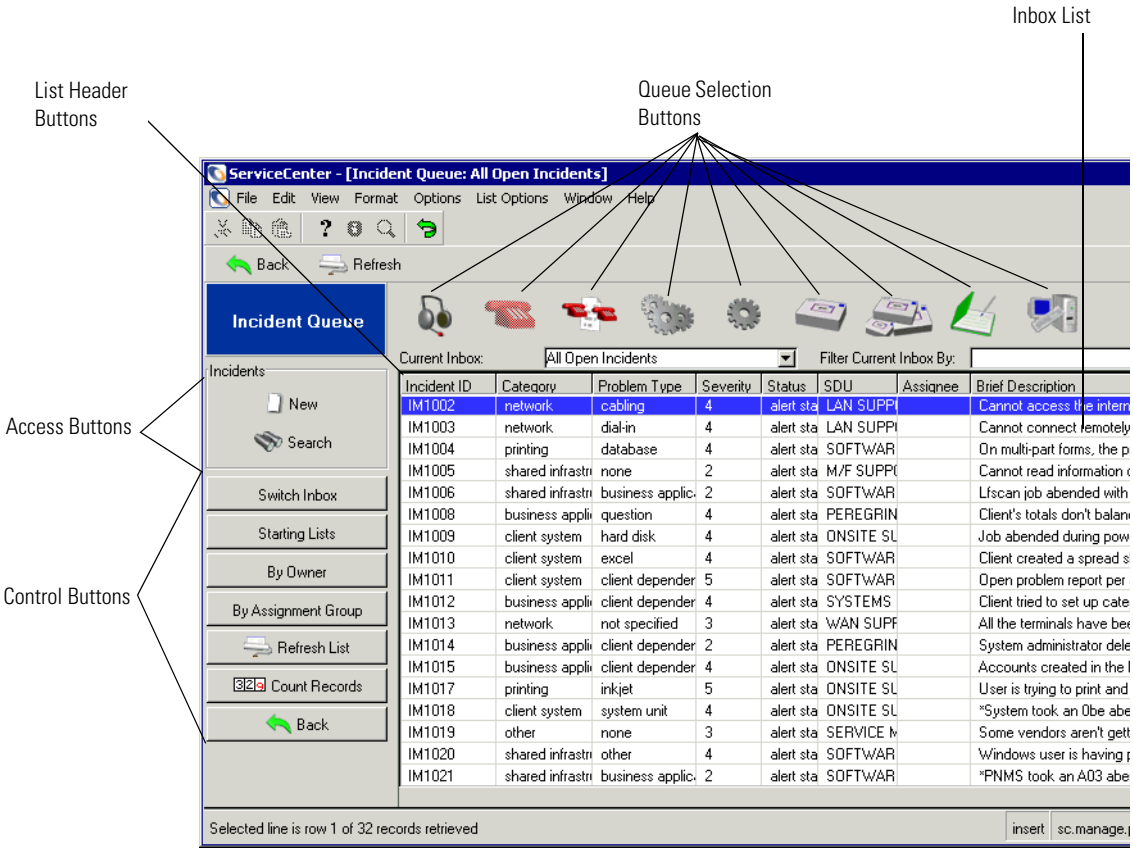


Figure 2-28: Incident Management Queue

Access Buttons

Access buttons allow you to search the database or create a new record (for example, a call report, incident ticket, change record, or change task).

New starts the process to create a new record.

Search accesses the search function.

Control Buttons

These buttons allow you to control which inbox displays. The buttons allow you to move between inboxes and ServiceCenter applications, change the lists, update (refresh) a list to include the latest records, and count the number of records in a list.

Switch Inbox—displays a dialog box in which you can select another inbox associated with that queue. (If you are in Incident Management, only IM inboxes are available.)

Starting Lists—returns to your default inbox for this queue.

Refresh—updates the currently displayed list.

Count—tallies the number of records in the currently displayed list and displays a message box with the results.

Back—returns you to the previous form.

Queue Selection Buttons

These buttons allow you to select the application queue to display. The buttons allow you to access other application queues without going back to the main menu to access the new application.

Note: The button for the currently accessed application is not displayed.

Call Queue—accesses the initial **Call List**. This button is also used to access Service Management from other menus.

Incident List—accesses the initial Incident List. This button is also used to access Incident Management from other menus.

Root Cause List—accesses the initial Root Cause List. This button is also used to access Root Cause Analysis from the other menus.

CM Change List—accesses the initial Change List.

CM Task List—accesses the initial Task List.

RM Quote List—Accesses the Request Management quote QBE Record list.

RM Order List—Accesses the Request Management order QBE Record list.

RM Line Item List—Accesses the Request Management line item QBE Record list

Inventory Management—Accesses the Asset Management menu Resources tab.

Header Buttons

Header buttons provide labels for the list columns. The labels vary between applications. By clicking on a header button, you can order the list according to that heading.

Current Inbox Drop-Down List

This list provides a subset of all inboxes from which a user can select one. It functions like a favorites list and can contain entries for all queues and not just the current one.

Inbox List

This list provides the results of the search conducted by the current inbox. For some users, a general list displays when an inbox is first accessed.

You can select a record in an inbox list by double-clicking the listing.

Inbox Search Result	Description
Switch Inbox	Changes the list to display the results of the search for a different inbox in that application.
Inbox Selection Buttons	Changes to an inbox in another application.

Editing Records

When you access a ServiceCenter record, the form first displays in *view mode*. View mode means the record is not locked and no conflict resolution management is required. As soon as you place start typing in a field, or otherwise start to change the record, ServiceCenter attempts to lock the record. This is a background process and is often transparent to the user. This process locks the user into the record and prevents other users from simultaneously editing the same record. To do this, ServiceCenter checks the record to see if another user is using that record and creates the following scenarios:

- If the record is in use, a message displays indicating another user is updating the record.
- If the record is not in use, but you do not have the current version of the record, you are prompted to refresh the record.
- If the record is not in use and you have the most current version, you may continue typing without interruption.

Manual Saving

To manually save changes in records:

1. Click **OK**, or press **F2** or **Enter**. This updates the record and returns you to the previous form.
2. Click **Save**, or press **F4**. This updates the record and leaves the current form displayed.

Autosaving

ServiceCenter records are automatically saved (autosaved) when certain actions take place in a writable record if the record has been updated. A record is autosaved when you:

- Click **Back**, or press **F3**.

- Click **Next**.

- Click **Previous**.

Note: Clicking **Cancel** does not autosave the current record.

CHAPTER 3 The Java Client Desktop

The Java client for ServiceCenter includes an interface that incorporates a tree-based method of navigation called ServiceCenter Explorer. The previous menu-based method of navigating through ServiceCenter is still available for those users who are more comfortable with menu-based navigation.

In addition to the ServiceCenter Explorer menu, unique features in the ServiceCenter Java client include:

- Multiple Document Interface (MDI) support
- A Favorites Bar, similar to that found in Web browsers
- Frequently used forms access
- **Restore Forms on Startup** option
- Multiple sessions ability
- Activity indicator in the status bar
- Message button in the status bar
- Save windows on exit
- The Java client also supports hyperlinks, such as, http://, mailto:, and ftp://, in a text field. Clicking a link automatically launches the default browser if you're running the client as an application. Links are shown as blue, underlined text within the field. When the cursor is over a clickable link, it changes to a hand.

The Java client incorporates user interface enhancements only, so the forms with which you interact and the functionality of those forms remains the same throughout ServiceCenter.

The two features you are likely to notice and appreciate most are the MDI support and the ServiceCenter Explorer. Using ServiceCenter Explorer, you can quickly drill down to a form. MDI support allows for easy management of multiple open forms (see *Multiple Display Interface (MDI mode) versus Single Display Interface (SDI mode)* on page 62).

You should note, however, that the ServiceCenter Explorer and Menu forms views are completely independent of one another. For example, certain actions can only be performed with the ServiceCenter Explorer. Also, forms available in the ServiceCenter Explorer tree and forms available in the form-based menus may differ, depending on how your server has been configured.

The ServiceCenter Java client displays as an applet within a Web browser, or as a standalone Java application.

Java Client Features

The Java client has several unique features that operate differently than the standard Windows client. The forms, methods, and process used have not changed; however, the method of access has changed. In addition, users can revert to the traditional Windows client look and feel by selecting the forms-based navigation feature from the menu bar. See *Switching Between Forms and ServiceCenter Explorer* on page 92.

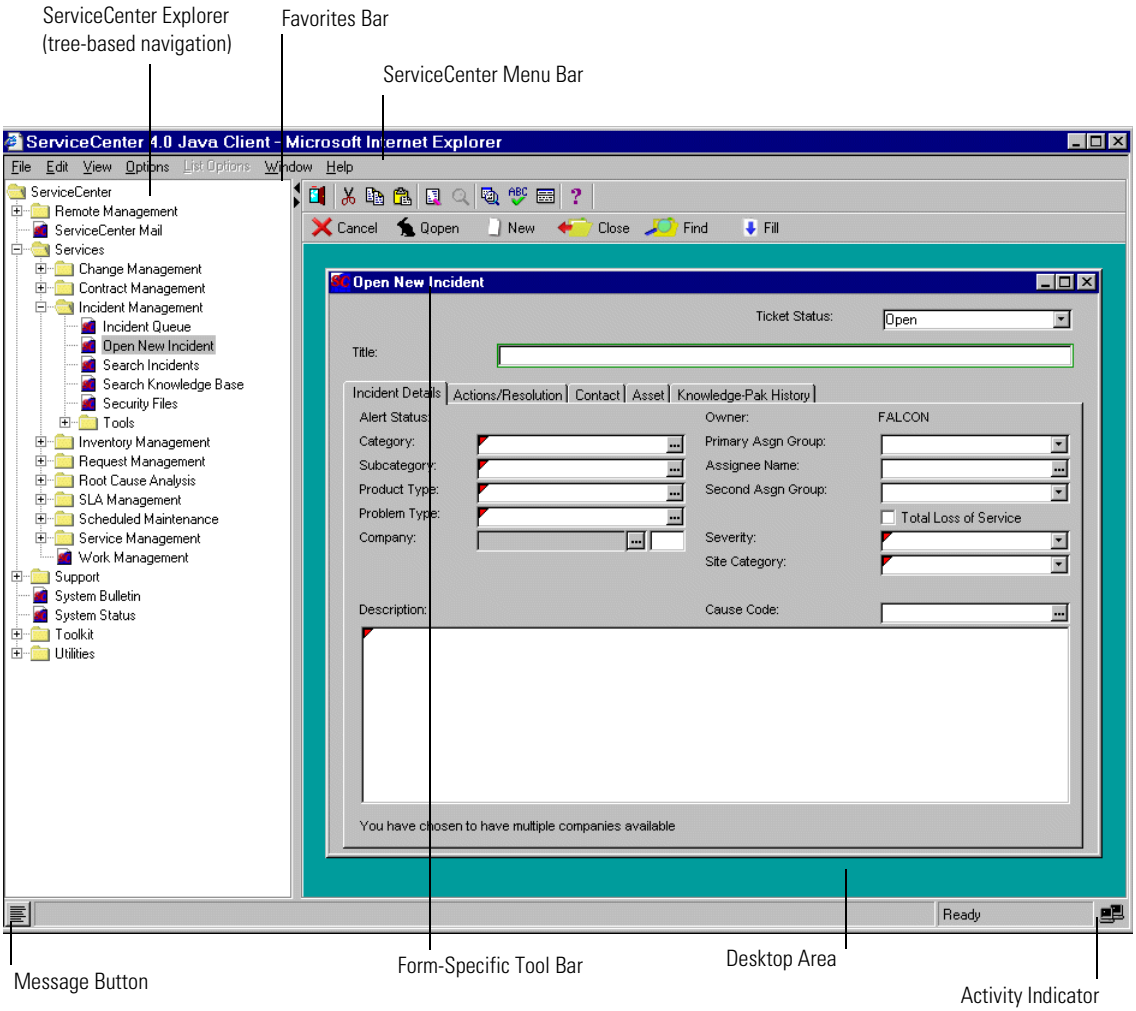
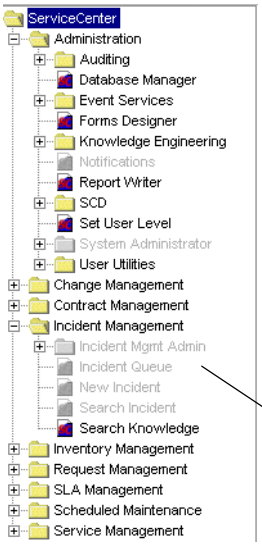


Figure 3-1: The Java Client Interface

ServiceCenter Explorer: Tree-based Navigation

The ServiceCenter Explorer is a tree-based navigation component that allows you to quickly drill down the menu hierarchy to get to the forms with which you want to work. In addition, system administrators can customize the Explorer tree. See the *Java Client Installation and Configuration Guide* for more information.

The options a user sees are the same as the Menu forms based navigation area. Users only see and are able to access those areas for which they have privileges, as with the form-based navigation system.



ServiceCenter Explorer menu with both available and unavailable forms shown. Grayed out forms are unavailable to this user.

The Favorites Bar, Frequently Used forms menu, and **Restore Forms on Startup** options are only enabled when using the ServiceCenter Explorer.

Note: Forms available in the ServiceCenter Explorer tree and forms available in the form-based menus may differ depending on how your server has been configured.

Testing Client Server Bandwidth

Press Ctrl-Shift+S, while Java client is the active window, to test the transmission speed between the server and the Java client. This test takes about 15 seconds, sending small packets of data to the server and displaying the results in the Message window (see Figure 3-2 on page 91). This a quick test of the network for trouble-shooting purposes, and differs from the About Connection Speed option available from the options menu.

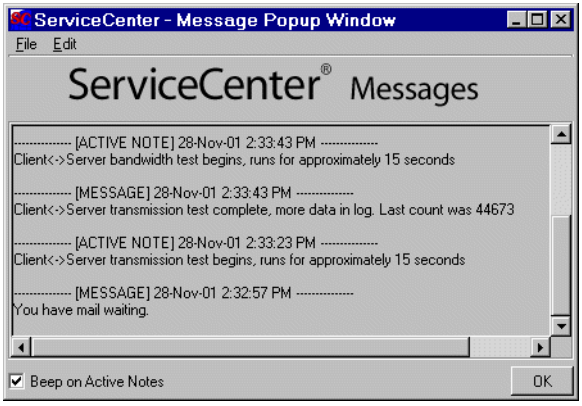
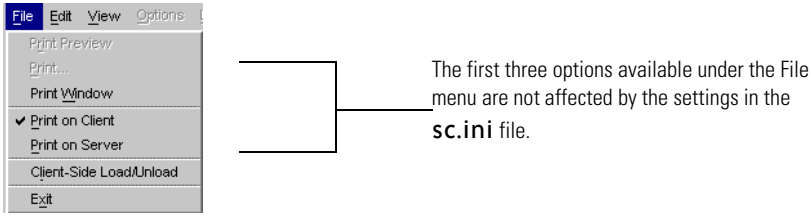


Figure 3-2: Active message window

Printing From the Java Client

The Java client print behavior is set in the sc.ini file. See the *Java Client Installation and Configuration Guide* for more information. The options set in the sc.ini file do not affect the first three options available from the File menu.

The first three print options found under the Java client File menu are set to *always* Print on Client.



For example, if the sc.ini file is set to "Print on Server," and the user selects either Print Window, Print List, or Print Preview from the ServiceCenter File menu, then the print jobs use the client's default printer.

If this same user selects **Print List** from the **List Options** menu, then the print jobs use the server's primary printer, as specified in the sc.ini file.

Switching Between Forms and ServiceCenter Explorer

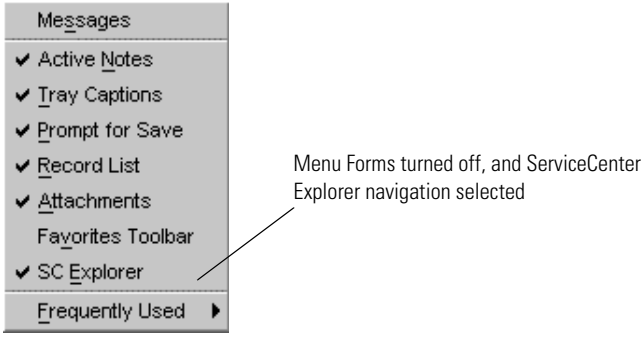
When the ServiceCenter Java client first starts, ServiceCenter Explorer navigation is turned on by default. To change the default so that the Menu Form is displayed at startup, see the ServiceCenter *Java Client Installation and Configuration Guide*.

To switch between Menu Form and ServiceCenter Explorer navigation:

1 Open the Java client.

Note: If you installed the Java client to a local or network directory, the ServiceCenter server must be started in order for the Java client to be launched. In addition, if you installed the Java client to a Web directory, then your Web server must also be running.

Click **View** on the ServiceCenter menu bar.



2 Select **SC Explorer**. The check mark next to the SC Explorer option is removed and the familiar form-based main menu of ServiceCenter displays on the desktop.

3 To turn off Menu Forms, repeat the previous steps and make sure there is a check mark next to SC Explorer.

Dynamic Toolbars

The Java client displays forms on the desktop portion of the Windows display. Each form in ServiceCenter has a specific set of options associated with the form (Figure 3-1 on page 89). Switching to a different form loads that form's toolbar options.

Toolbars, menu items, and options are all form specific and dynamically update to reflect the currently active form on the desktop.

Hiding ServiceCenter Explorer

You can hide or show the ServiceCenter Explorer by clicking either the right or left arrows next to the ServiceCenter Explorer menu. Click the left facing arrow to expand the desktop area and hide the ServiceCenter Explorer menu. Click the right facing arrow to push back the desktop and expose the ServiceCenter Explorer menu. Click the right arrow once more to hide the desktop.

Hiding the ServiceCenter Explorer tree does not disable the feature, as selecting the Menu forms option does.

You can also adjust the relative width of the ServiceCenter Explorer by clicking and dragging the vertical separator bar.

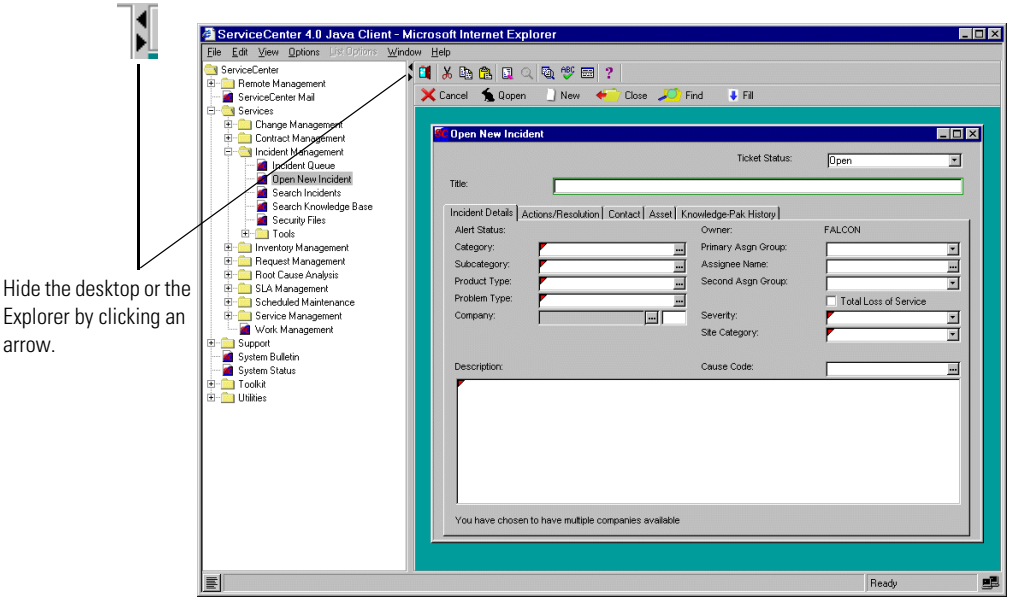


Figure 3-3: Hiding ServiceCenter Explorer

Controlling Forms

Multiple forms can be displayed on the Java client desktop by tiling, cascading, or floating the forms. The Java client also allows you to remember open forms when you exit and reopen them the next time you login.

Note: The **Save Windows on Exit** option is only available if you are in SC Explorer view.

To access the form window options:

1 Click **Window** on the Java client menu bar.

2 Select the display option. Your choices are:

Display Option	Description
Tile	Each form is assigned a section of the Java client desktop with a portion of all open forms visible. You can choose to tile horizontally or vertically.
Cascade	Forms stack behind one another, with a portion of each form visible. Clicking on a form brings it to the front.
Close	Selecting this option closes the currently active form on the Java client desktop.
Close All	Closes all open forms. Floating forms are not affected.
Float	Floating a form allows you to move the currently active form out of the Java client to anywhere on your computer desktop. Drag the currently active form anywhere on your computer's desktop by clicking and holding on the form's title bar. Refer to Figure 3-4 on page 96.
Restore Forms on Startup	With this option enabled, any forms that were open when you closed the Java client or logged out of ServiceCenter are displayed the next time you start the Java client. This feature is turned off by default. See *Restore Forms on Startup Option* on page 102 for more information.

The names of any open forms are displayed at the bottom of the Window menu. Click on a form name to bring that form to the front.

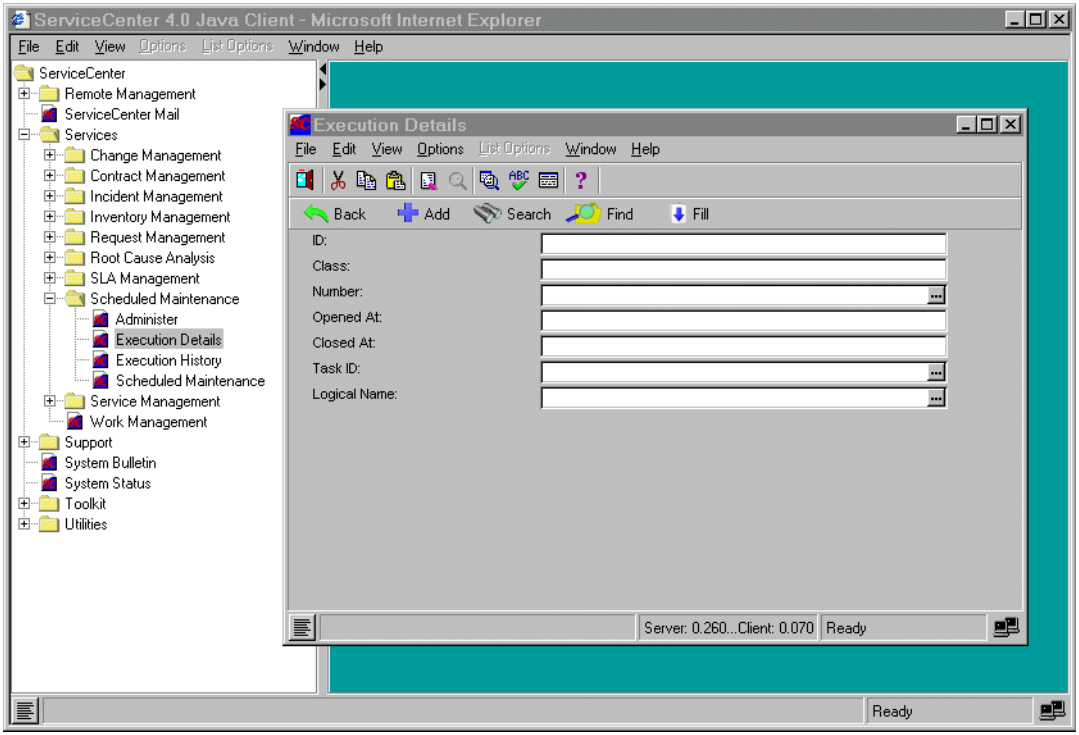


Figure 3-4: Floating a form out of the ServiceCenter Java client

Changing the Desktop Color

You can change the color of the Java client desktop.

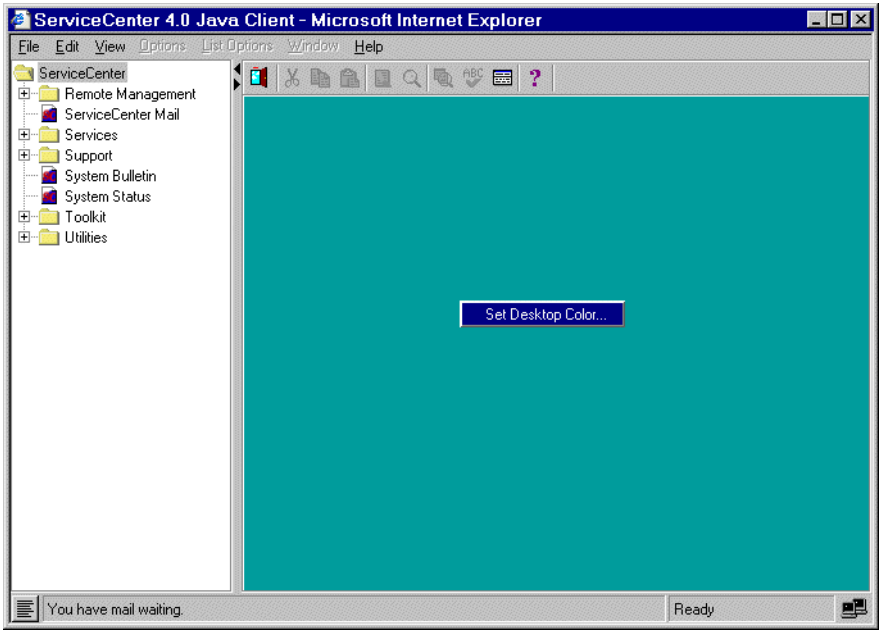
To change the desktop color:

1 Right-click anywhere in the desktop area.

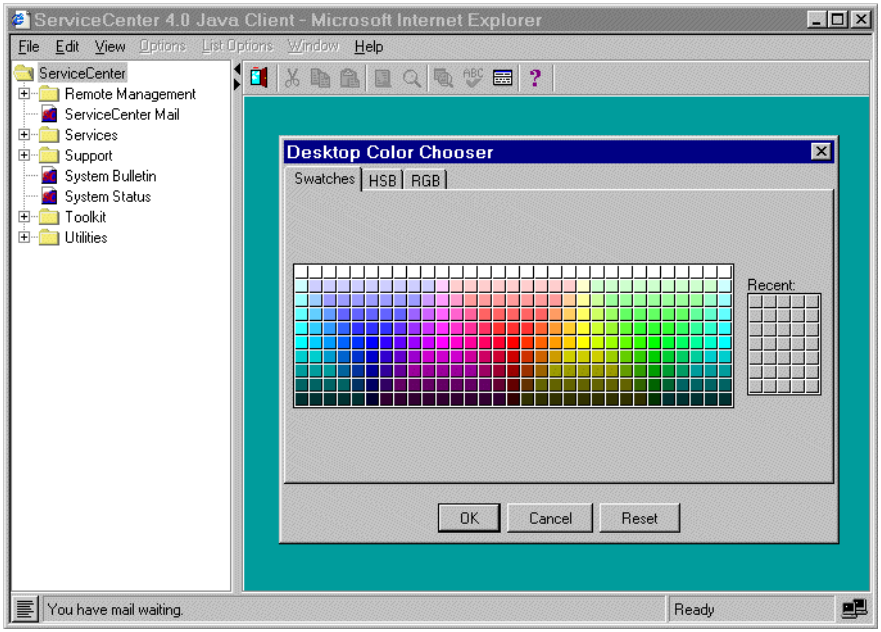
The Set Desktop Color option displays.

2 Click **Set Desktop Color**.

A color chooser displays.



Choose a new color by clicking on the color you want, and then click **OK**.



3 The new desktop color is applied.

The desktop color information is saved and displays the next time you start the ServiceCenter Java client

Favorites Bar

The Favorites Bar allows you to access forms that are used on a regular basis with one click, similar to Netscape's bookmarks or Internet Explorer's Favorites Bar.

Placing Forms

To place a form on the Favorites Bar:

1 Open ServiceCenter with the ServiceCenter Explorer navigation view selected.
See *Switching Between Forms and ServiceCenter Explorer* on page 92.

2 In the ServiceCenter Explorer menu, right-click on the name of the form you want to place in the Favorites Bar.

A shortcut menu with two options displays.

3 Select **Add to Favorites**. The form name is placed on the Favorites bar.

Although you can only place forms on the Favorites Bar from the ServiceCenter Explorer view, once they are placed you can access your favorites from either the Forms Menu or ServiceCenter Explorer views.

Renaming Forms

To rename a form currently on the favorites bar:

1 Right-click the form name on the Favorites Bar.

A shortcut menu displays.

2 Select **Rename**.

The name changes to an editable text box.

3 Type the new name of the form and press **Enter**.

The form name on the toolbar changes to the new name.

Renaming a form affects the name of the form only as it displays on the Favorites Bar.

If there are more forms on the Favorites bar than can be displayed at once, a Browser button displays on the right edge of the Favorites Bar, indicating there are forms on the Favorites Bar that are hidden from view. Click the button to view a drop-down menu listing the hidden forms.

Accessing Forms

To access a form from the Favorites bar:

▶ Click the form name on the Favorites bar.

Deleting Forms

To delete a form from the Favorites bar:

1 Right-click the form name on the Favorites bar.

A shortcut menu displays.

2 Select **Delete**. The form is removed from the Favorites bar.

Using the Message Button

The Message button is located on the far left side of the Status bar (see Figure 3-5) and acts as a toggle to allow you to turn on and off the active messages window display.

Figure 3-5: Viewing active messages via the Status bar's Message button

Click **Message** once to see the active ServiceCenter Messages window display (Figure 3-6).

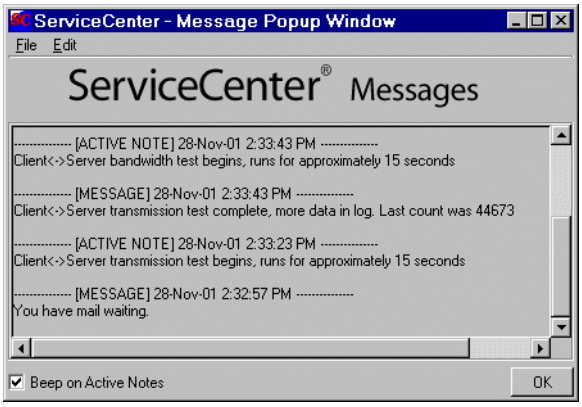


Figure 3-6: Active message window

Click **Message** again to close the Messages window.

The Frequently-Used Forms Menu

The Java client automatically tracks the forms you work with most often, and lists them in the Frequently Used Forms menu.

To open a form with which you frequently work:

1 Click **View** from the menu bar.

A shortcut menu displays.

2 Select the **Frequently Used** menu option. A submenu displays, listing up to ten forms and starting with the form that is most frequently used.

3 Click on the name of the form you want to access. The form displays on the Java client desktop.

This feature is only available when using ServiceCenter Explorer.

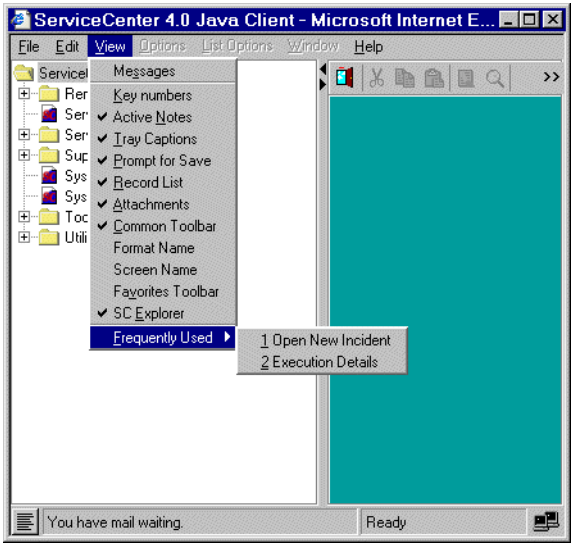


Figure 3-7: The Frequently Used Forms menu

Restore Forms on Startup Option

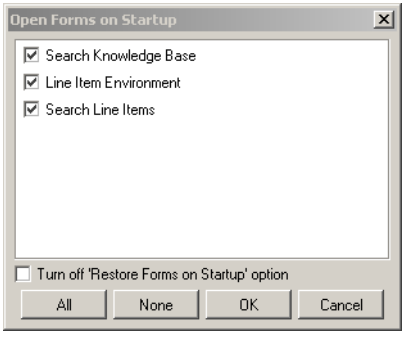
The Java client includes a **Restore Forms on Startup** option. Suspending a session simply means that any forms that were open when you close the Java client or logged out of ServiceCenter are displayed the next time you log on to the Java client. This feature is turned off by default.

Note: The **Restore Forms on Startup** option is bypassed if you exit the Java client through the browser controls.

To enable the Restore Forms on Startup option:

- Choose **Window>Restore Forms on Startup** on the Java client menu bar.

When you exit the Java client with a form open, the save session dialog box displays.



All open forms are displayed with a check mark next to the form name, indicating the forms are opened when you start your next ServiceCenter session.

Turn Off Restore Forms on Startup Options

Don't ask again—if you select the **Don't ask again** check box and click **OK**, then all forms are deselected and the **Restore Forms on Startup** option is turned off when you start your next ServiceCenter session. You can choose **Don't ask again** and then select a form to open on return. The form you select will open when you start your next session, but the **Restore Forms on Startup** option will be deselected.

Note: The actual state of a form cannot be restored unless you save the form before suspending your session. Also, any sub-forms that were opened as a result of working with a particular form will not be restored.

Option	Description
All	Places a check mark next to all forms, indicating they are opened automatically when you start your next ServiceCenter session.
None	Removes check mark from all forms, indicating no forms are opened when you start your next ServiceCenter session.
OK	Confirms your choices and ends your ServiceCenter session.
Cancel	Cancels the exit option and returns you to the ServiceCenter Java client.

CHAPTER 4 Service Management

ServiceCenter's **Service Management** allows you, as a help desk operator, to document and track the calls that you receive. Service Management provides one-button access to other ServiceCenter applications to automatically enter information received in the call.

Information in a call can be:

- Used to open an *incident ticket*.

Note: An *incident ticket* was referred to as a problem ticket in earlier releases. Problem Management was renamed to Incident Management to better align with the naming scheme used in the Information Technology Infrastructure Library (ITIL). See the *Introduction and Best Practices* guide for more information.

- Added to a record in another ServiceCenter application, such as Change Management.

This chapter describes Service Management, including:

Accessing Service Management

The examples in this chapter are based on the default first-level help desk support user, *BOB.HELPDESK*. Instructions for starting a client and logging on are provided in *Getting Started* on page 23.

To access Service Management:

1 Start a ServiceCenter client.

2 Enter the user's **name** in the **Name** field.

For this example, enter BOB.HELPDESK.

3 Enter the password, if necessary, when prompted.

Note: The *BOB.HELPDESK* user does not have a password by default.

4 Click OK, or press **Enter**.

The Home menu for the user logged in as *BOB.HELPDESK* displays.

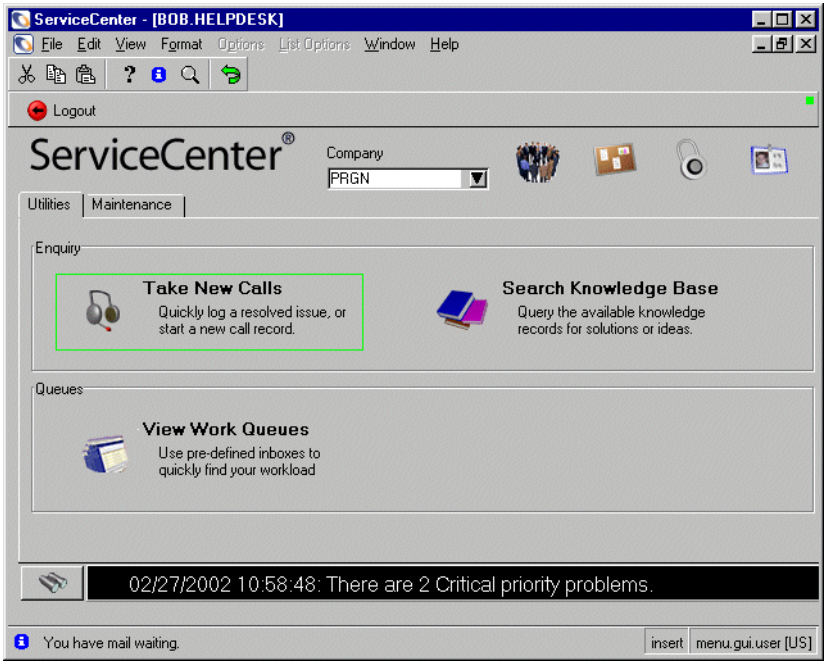


Figure 4-1: Help Desk Home menu

Service Management Option Buttons

Take New Calls—serves two functions, depending on the user. For a help desk operator or a technician, this button accesses a blank call report form to enter information from a customer call. From this form, you can open a call report to log the call, check for related call reports, and add call information to other ServiceCenter records, such as an incident ticket. For a system administrator and a manager, this button provides general access to Service Management.

View Work Queues—allows you to check the Incident queue, Call queue, Root Cause list, Change and Task lists, and Request Management Quotes and Order lists for all users, yourself, or another user.

Search Knowledge Base—accesses the ServiceCenter Knowledge Base search form. The Knowledge Base is discussed in *Knowledge Base - Diagnostic Aids* on page 561.

If you have access to the various ServiceCenter applications and utilities, you can use the menu tabs that are displayed in your home menu to access each of the applications and utilities. The availability of applications is dependent on the configuration your system administrator has set up in your Operator Record.0

How Service Management Works

Network users run into problems or have needs with their computers or the services associated with the computer, such as printing. The users call their help desk for assistance. ServiceCenter operators can create and view call reports.

Service Management allows you to keep track of calls by opening (creating) and viewing *call reports*. If a reported issue requires further action, you can open an *incident ticket* to track an incident. See Figure 4-2 on page 111 for the workflow of the call report and incident ticket process.

Each contact with the help desk is designated as a call. Out-of-the-box, the contact can be a telephone call or e-mail. You, as the help desk operator, open a *call report* with the user's name, the component with the problem, and a description of the incident. Once this information is collected, you can:

- Close the call report if the contact was informational or the incident was resolved without requiring an incident ticket.
- Look for existing incident tickets affecting either the same component or one of the component parent assets. If such an incident ticket exists, the operator can associate the call report with the ticket in question. If an incident ticket does not already exist, the operator can open an incident ticket based on the call. Pertinent information from the call report is automatically copied into the newly created incident ticket.

Example: A user cannot print to the network printer. The user calls the help desk. You, the ServiceCenter operator, enter the information in a call report. The problem cannot be resolved during the call, so you open an incident ticket. The ticket is assigned to IS. A technician discovers that the printer network connection is broken. The technician fixes the problem and closes the ticket.

Call reports are assigned categories to organize the different types of reports. For example, a call report describing an e-mail incident stores different information than a call report looking for equipment for a new employee.

What is a Category?

Call reports and incident tickets are classified by category. Service Management and Incident Management use the same categories. The category determines:

- Who is responsible for resolving a call report or incident ticket (the default assignment group).
- What information is needed to open the call report or incident ticket.
- Solutions in the Knowledge Base.
- Applicable SLAs.
- Default severity of the ticket.
- Default priority of the ticket.
- How quickly a ticket must be resolved.
- The time interval for escalating a ticket to a higher alert stage.
- Who must be notified as the ticket is escalated.

The processing logic for each category is primarily the same. However, ServiceCenter can contain different ticket forms for each category. The tabs on the forms are specific to the category.

For example: Information needed to solve a software problem is different than information needed to solve an equipment problem.

To enter information, based on a category:

1. When you first enter information about an incident, you enter the information in an initial form.
2. Select a category from the drop-down list displayed by clicking the down arrow next to the **Category** field in the initial incident ticket form.
3. Click **New** to open the ticket.

   The form displays the ticket category with which it is associated. If a ticket is assigned to the wrong category, the appropriate category can be assigned after the ticket is opened.

Predefined categories

The following table lists the predefined categories:

Category	Use
business applications	Incidents involving a business-specific application (as opposed to a generic user application such as email).
change	Calls or incidents opened specifically for the purpose of starting a change process.
client system	Enduser desktop incidents involving the client's hardware or generic user software such as email.
enquiry	Call or incidents requesting only information.
network	Incidents involving network connectivity, performance, or availability.
other	Incidents that do not fit into any other category.
printing	Incidents involving printer or printing hardware or software.
security	Incidents involving inappropriate (excessive or incomplete) access to any area, asset, application, module, or function.
shared infrastructure	Incidents involving shared hardware not covered by other categories; for example, servers.
TBD	For tickets that are to be quickly opened and later looked at and edited.
telecoms	Incidents involving telecommunications hardware or software.

You may have other categories available in your initial call report or incident ticket form. Categories can be created and revised by a ServiceCenter user with administrative privileges.

Note: The following workflow (Figure 4-2 on page 111) can be changed by modifying ServiceCenter scripts to meet your business process flow.

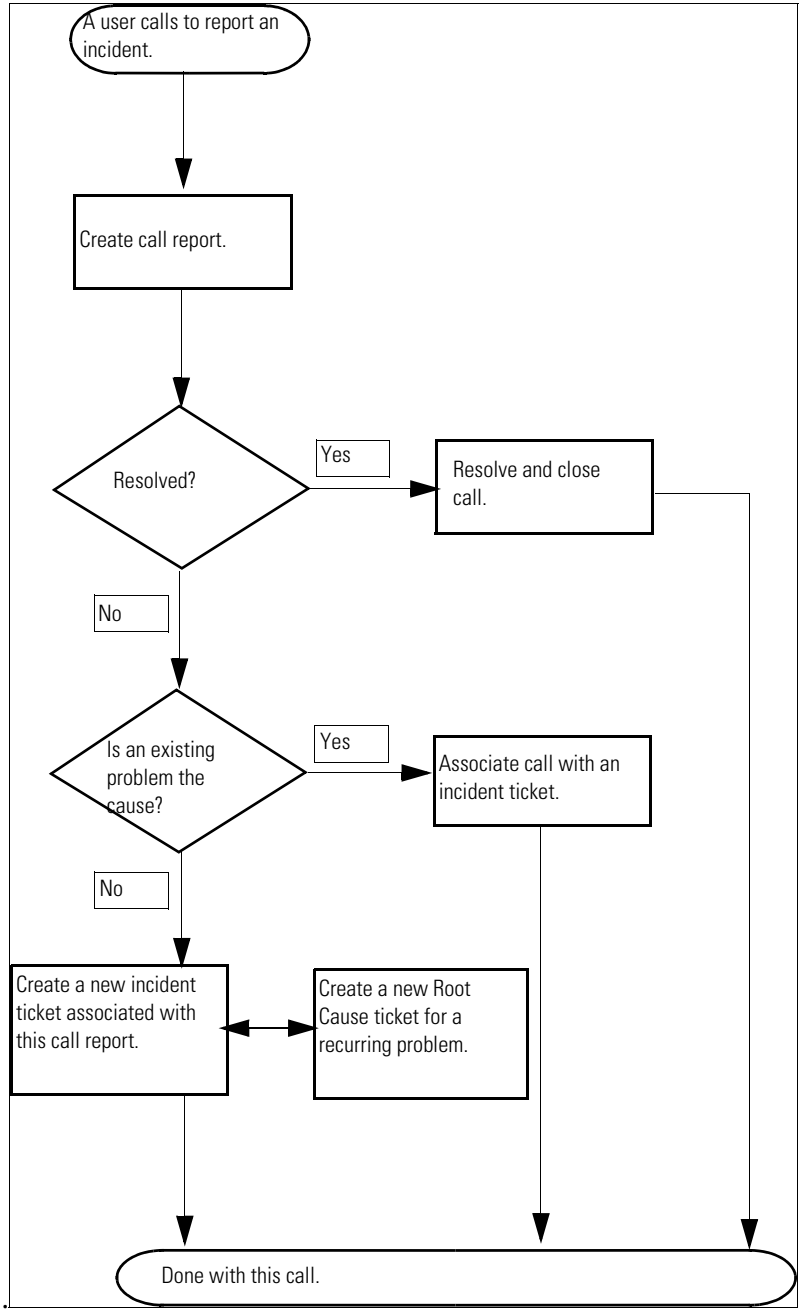


Figure 4-2: Call Workflow

Call List in the Call Queue

You can quickly view call reports in the Service Management Call Queue (*sc.manage.call* form). See Figure 4-3 on page 112. When logged on as *BOB.HELPDESK*, click **View Work Queues**. The Incident List (*sc.manage.problem*) form displays. Select **Calls I Report** in the current Inbox. The Call Queue form displays.

You can create a predefined search of records with an *inbox*. An inbox is created in the search mode and saved in the database. Refer to *Creating an Inbox Definition* on page 77.

To access a Call List in the Call Queue:

1 Click **Call Queue** in the queue area.

-or-

Click **Call Queue** in the inbox of another application.

The Call List form displays (Figure 4-3 on page 112).

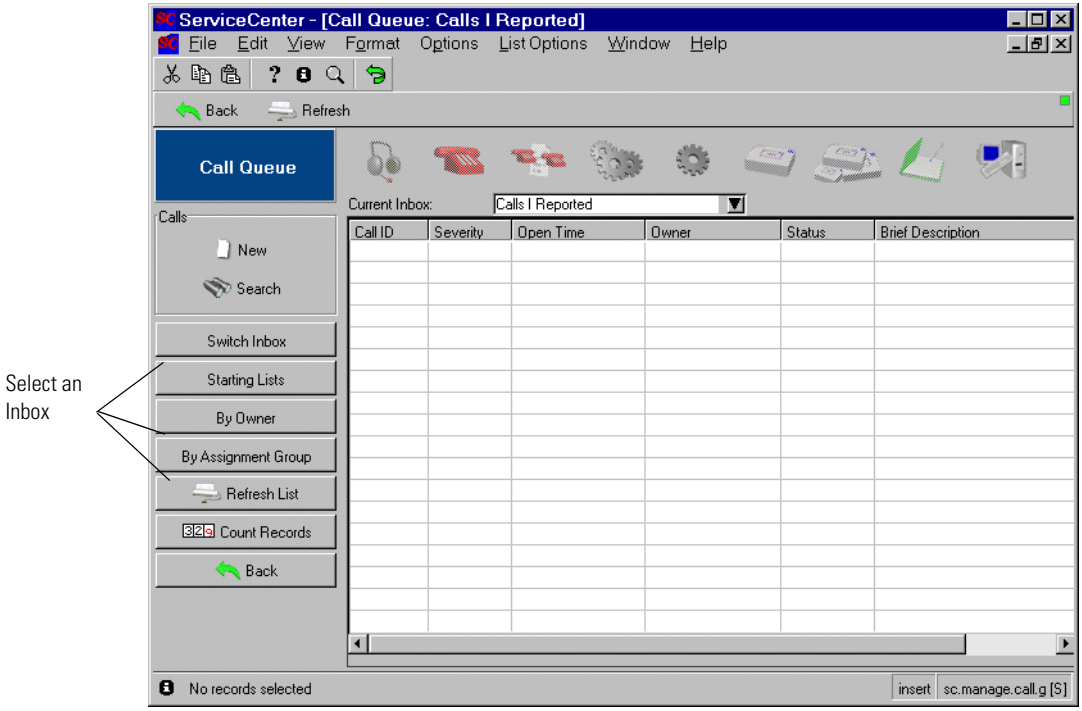


Figure 4-3: Call List form

2 Click **Switch Inbox**, **By Owner**, or **By Assignment Group** to select the inbox you want to view.

3 In the **View Records in which Inbox** dialog box displayed, choose an inbox from the drop-down list.

4 Click **OK** in this box to confirm that you want to display the selected inbox in the Call List form (Figure 4-4 on page 113).

5 Double-click on a listed record to access that call report.

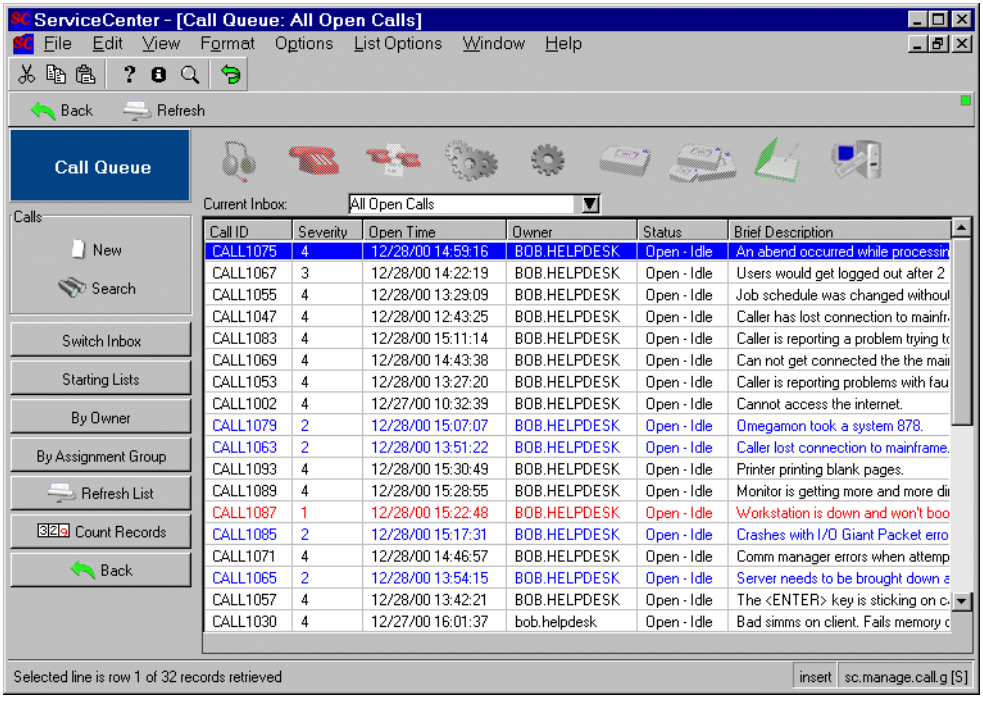


Figure 4-4: Call List Inbox

Call List Columns

The Call List contains a series of columns listing the general information about the call report records. The column header buttons can be used to sort the list by that column.

Call List Column	Description
Call ID	Call report number.
Severity	Indicates how pressing an incident is for the caller. The severity can be classified as one of the following. The default is *4 - Low*. ■ **1 - Critical**—(Severe business disruption) the business unit or sub-unit is unable to operate; critical system component failed or severely impaired. ■ **2 - Major**—(Major business disruption) critical user or user group is unable to operate, or the business unit is experiencing a significant reduction in system performance. ■ **3 - Medium**—(Minor business disruption) single user is unable to operate with no available work around. ■ **4 - Low**—(Minor disruption) single user or user group is experiencing incidents, but a work around is available. ■ **5 - Very Low**—(Inquiry) single user or user group requiring assistance, but with no direct impact on business, such as request for information.
Open Time	Date and time the call report was opened.
Owner	ServiceCenter user who opened or was assigned the call report.
Status	Status of the call report.
Brief description	Brief description of the reported incident.

CallList Inbox Buttons

Each inbox contains a series of buttons providing quick access to various Service Management functions and applications. Most buttons are the same between the various application inboxes. These buttons are described in *Using Inboxes* on page 82. Only two buttons are different in each inbox. For Service Management, those buttons are:

By Owner—displays a list of records for the operator.

By Assignment Group—displays a list of records for another assignment group.

Options Menu—Call Queue

The **Options** menu in the Call Queue provides shortcuts to other ServiceCenter applications.

Option	Description
Select Queue	Selects a queue from which to work.
Switch Queue	Displays a dialog window to select another inbox. Functions the same as **Switch Inbox**. Below are the other inboxes from which to choose: ■ **Asset Management**—accesses Asset Management. ■ **Quote List**—accesses the current user's Quote List (Request Management inbox). ■ **Order List**—accesses the current user's Order List (Request Management inbox). ■ **Line Item List**—accesses the current user's Line Item List (Request Management inbox). ■ **Incident List**—accesses the current user's Incident List (Incident Management inbox). ■ **Change List**—accesses the current user's Change List (Change Management inbox). ■ **Task List**—accesses the current user's Task List (Change Management inbox). ■ **Root Cause**—accesses Root Cause Analysis.
New	Accesses a new call report form.
Search	Accesses the Service Management search function to search calls.

Option	Description
Refresh	Updates the current list.
Edit Favorite Inboxes	Edit your list of Favorite Inboxes.
Use Stored Query	Access the list of stored queries.
Starting Lists	Displays the initial Call List.
Count	Tallies the number of records in the current Call List.
By Assignment Group	Searches for call reports assigned to a specified assignment group. A message box prompts you to select an assignment group.
By Owner	Searches for call reports assigned to a specified ServiceCenter user. A message box prompts you to select an owner.

List Options Menu—Call List

List Option	Description
Export to Excel	Exports the current Call 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.
Export to Text File	Exports the Call 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.
Modify Columns	Allows you to change the column headings and related information in the record list.

Search Call Reports

Service Management allows you to query for call report records. You can also save these queries as *inboxes* (refer to *Creating an Inbox Definition* on page 77).

Call Report Search Fields

The Call Report search form displays three tabs: Basic Search, Advanced Search, and IR Search.

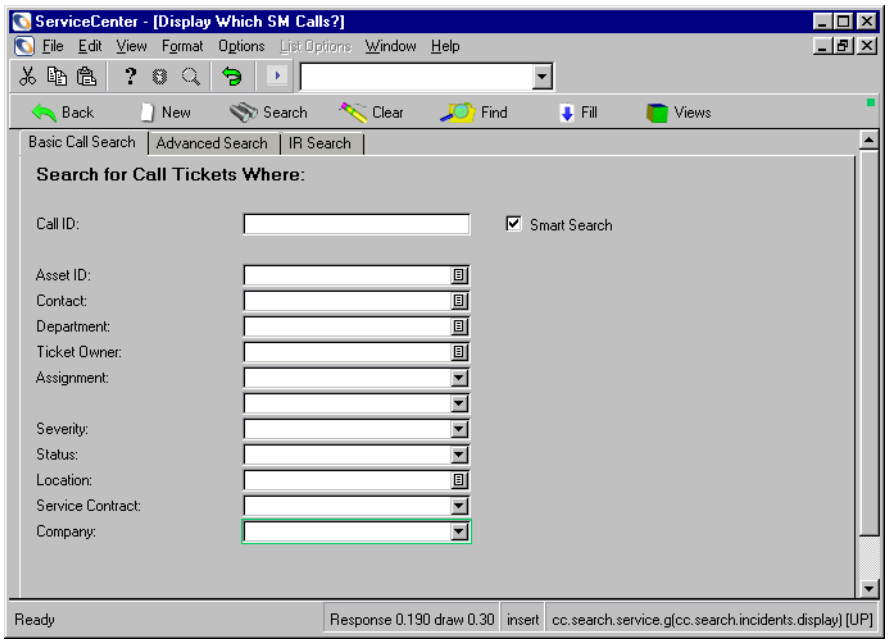


Figure 4-5: Call Report Search form

Call Report Basic Call Search tab

You can leave any or all fields in this tab blank. For fastest searching, use the fields identified as key (indexed) fields at your site. If these are not clearly identified on the form, ask your ServiceCenter administrator for a list of key fields.

Field	Description
Call ID	Call report number. Enter the call report number, if you know it, in the form of `CALLxx`, where *xx* is the number. If you have *Smart Search* selected, enter the call report number without the CALL prefix, as *Smart Search* performs when a number *only* is entered. **Note:** You can enter a partial number to access a QBE Record list. For example, if you enter `CALL2`, you get a list of all call numbers starting with 2: *CALL2*, *CALL20*, *CALL200*, and so forth. Wildcards cannot be used.
Smart Search?	Allows searches for call reports by number only (prefixes or suffixes, such as *CALL*, are omitted). Smart Searches return the call requested regardless of its state (such as, open or closed). If any settings on the search form other than the default are entered, a normal query is performed and the Smart Search feature is ignored.
Asset Id	Name of the affected asset listed in the call report.
Contact	Name of the user who reported the incident, for example, the caller.
Department	Department in which the contact works.
Ticket Owner	Service Management user who opened the call report.
Assignment	Name of the Assignment Group or possible groups to which the call report was assigned.

Field	Description
Severity	Severity (1 through 4) assigned to the call report. Indicates how pressing an incident is for the caller. The severity can be classified as one of the following. The default is *4 - Low*. ■ **1 - Critical**—(Severe business disruption) the business unit or sub-unit is unable to operate; critical system component failed or severely impaired. ■ **2 - Major**—(Major business disruption) critical user or user group is unable to operate, or the business unit is experiencing a significant reduction in system performance. ■ **3 - Medium**—(Minor business disruption) single user is unable to operate with no available work around. ■ **4 - Low**—(Minor disruption) single user or user group is experiencing incidents, but a work around is available. ■ **5 - Very Low**—(Inquiry) single user or user group requiring assistance, but with no direct impact on business, such as request for information.
Status	Status of the call report: Closed, Open-Idle, or Open-Callback.
Location	Office location from which the call was received. Location can be typed in, or click **browse** to pick a location from the QBE Record list.
Service Contract	Select a service contract from the drop-down list.
Company	Select a company from which the call was received.

Call Report Advanced Search tab

Any or all of the fields in this tab can be left blank.

Field	Description
Opened After and Last Updated After	Enter the date and time (optional) the report was opened or updated Before and After. The default format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is 00:00:00. **Note:** The date and time format can be set by your system administrator in the System Wide Company Record or in individual operator records. Therefore, the date and time format you use may vary from the default shown above.
By	Enter the name of the operator who opened or updated the call record. You can type the name or choose a name from the drop-down list.

Call Report IR Search tab

The IR Search tab displays a blank text box where you can enter a plain text query. ServiceCenter can add the plain text to the search parameters.

Field	Description
IR Search Text	Access ServiceCenter's IR Expert application where you can enter a plain text query. (IR Expert is an intelligent, concept-based information retrieval engine that searches the ServiceCenter database for similar or related information, based on a simple, natural language query).
Discovery Options	Where you can designate which kind of search you want by selecting one of the following options: ■ **Complete Match**—system searches for an absolute match to the text you have typed. ■ **Shallow**—search uses narrower parameters and returns fewer records than with a deep search. ■ **Deep**—performs a broad search. Try using a deep search if a shallow search does not return the desired records.

Search Procedures

To search for call report records:

1 Click **Call Queue** on the **Service Management** Menu.

2 Click **Search** in the **Call List**.

A Basic **Search** form displays.

3 Fill in the fields in the Basic Search tab in one of the following ways:

- Type known information.
- Click **Fill**, or press **F9** to access a QBE Record list.
- Click **Down arrow** to access a drop-down list.
- Press **Down arrow** to toggle through selections from the drop-down list.

Note: The more information you enter, the narrower the search parameters.

To narrow the search parameters further:

1 Click the **Advanced Search** tab.

Advanced search fields allow you to narrow the time frame when a record was opened or updated. You also can enter the names of the operators who opened or updated the report. These fields are independent of each other and can remain blank.

2 Click the **IR Search** tab.

3 Enter a plain text description in the **IR Search Text** array.

4 Select a search option from Discovery Options: **Complete Match**, **Shallow**, or **Deep**.

5 Click **Search** or press **F6**.

The matching record displays.

If multiple records match the search parameters, the QBE Record list includes these, and the first entry in the list displays in the call report form.

Note: If a message is returned stating *No Records Found*, you can broaden the search by eliminating some of the search parameters.

6 Click the desired record in the QBE Record list.

To sort a QBE Record list:

▶ Click the column header button by which you want to search the list. For example, to search the list by status, click on the **Status** header button.

Call Reports

When a user calls the help desk, you can create a *call report* to log the specific information provided in the call. The call reports are logged in the incidents file. As you talk with a user you can enter information about the call, the affected equipment, the caller, and other pertinent information.

Form for Taking New Calls

The form for opening a new call report (Figure 4-6 on page 122) allows you to quickly log calls and create call reports.

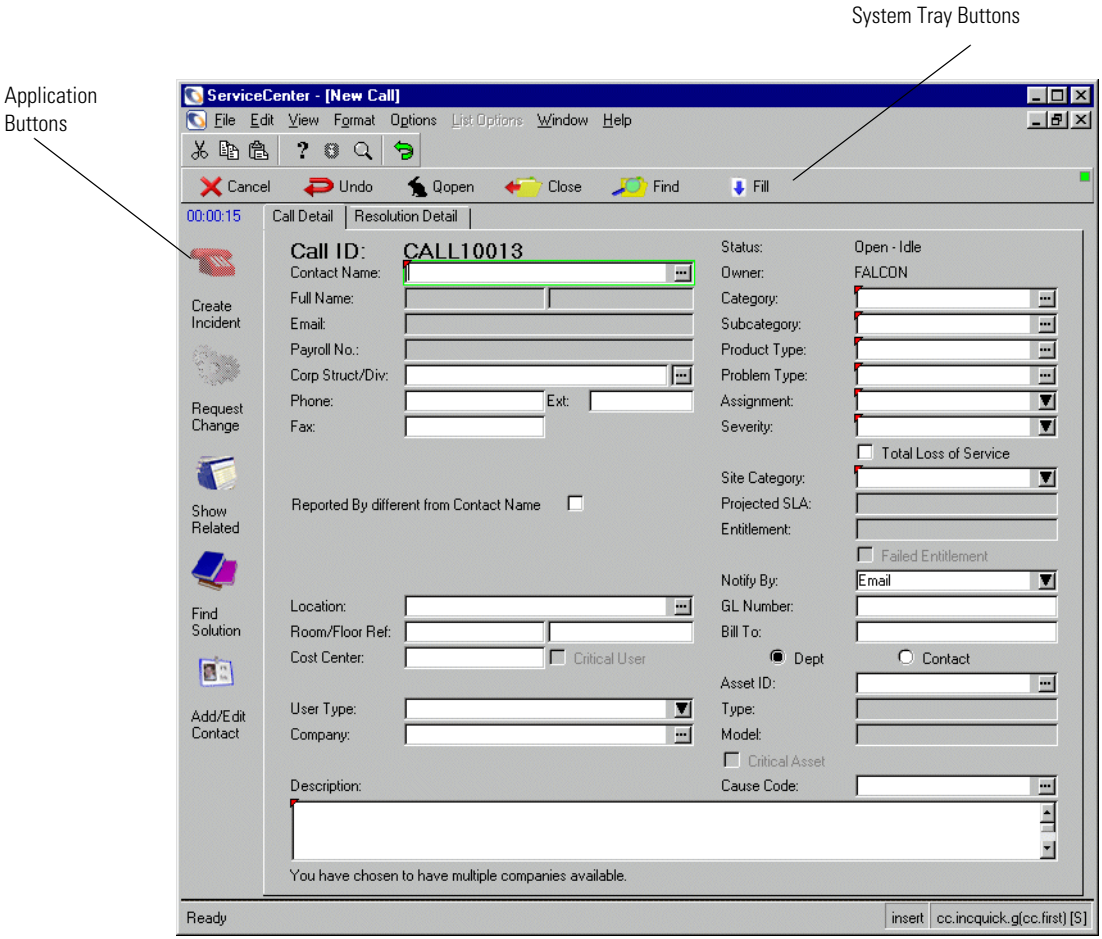


Figure 4-6: New Call form

Buttons

The call report form contains a series of quick access buttons:

Button	Function
 Cancel	Returns you to the Service Management menu.
 Undo	Clears the changes entered in the current form without saving that data.
 Quick Open	Allows you to save a call report in the inactive state. When the report is saved, the record is saved to the **incidents** file. The form is then cleared and ready for a new report. See *Creating an Incident Ticket—Quick Open* on page 220 for more information.
 Close	Closes the current call report.
 Find	Accesses the ServiceCenter Find function.
 Fill	Accesses the ServiceCenter Fill function.
 Create Incident	Starts the process for placing the information in a new incident ticket. The currently displayed call report is automatically associated with the new incident ticket. See *Creating an Incident Ticket* on page 223.
 Request Change	Starts the process for placing the information in a new Change Management change. The currently displayed call report is automatically associated with the change record.
 Show Related	Displays the call reports associated with the contact listed in the **Reported By** field. If this contact has multiple call reports open, a QBE Record list displays.
 Find Solution	Accesses ServiceCenter's Knowledge Base to locate possible solutions for a reported incident. See *Knowledge Base - Diagnostic Aids* on page 561 for more information.
 Add/Edit Contact	Accesses the ServiceCenter **contacts** records. Once you have accessed a record, you can edit the information for the caller (**Reported by**) or add a **contacts** record for a new caller. See *The Contacts File* on page 547 for more information.

Fields

Call Detail tab

Field	Description
Call ID	Number entered automatically by ServiceCenter when the form is accessed.
Contact Name	The **Contact Name** related to the company from which the call was received. Click **Fill** to select a **Contact Name** from the QBE list of contact names. The non-editable fields (**Full Name**, **Email**, and **Payroll No.**) and editable fields (**Corp Struct/Div, Phone, Ext., and Fax**) are automatically filled in from the contacts record for this caller. For more information, see *Contacts File* Appendix A.
Asset ID	Asset for which an incident is being reported. When you select a **Contact Name**, you are prompted to select the **Asset ID** associated with the call. Noneditable fields, **Type** and **Model**, are automatically filled in from the asset record of the asset. Asset records are created in Asset Management.
Reported By different from Contact Name	Check this box if the name of the caller is different than the contact name in the *Contacts* file.
Reported By	Click **Fill** to select the caller's name from the QBE list of contact names, or create a new record. The editable fields associated with this caller (**Reported By**, **Phone**, **Ext.**, and **Fax**) are automatically filled in from the contacts record for this caller. For more information, see *The Contacts File* on page 547.
Location	The office location from where the call originated.
Room/Floor Ref	The room and floor references as to where the asset is located.
Cost Center	The cost center for the contract.
User Type	The type of user calling.
Company	The name of the company calling to report the incident.
Description	Description of the reported incident.
Site	Site or campus-based location with on-site support resources.

Field	Description
Home	Home location of remote or field-based user. help desk and user agree on level of support required to resolve the issue.
Mobile	Mobile user, which is not considered a critical user and affects the severity level of the incident.
Status	State of the call report: ■ **Closed**—the call report is closed. ■ **Open-Idle**—the call report remains open, with no action required. Open-Idle is the default setting. ■ **Open-Callback**—the call report remains open and a callback to the user is required.
Owner	Name of the Service Management operator who opened this call report.
Category	Classify asset's category within the business, such as *network*.
Subcategory	Classify asset's subcategory within the primary category, such as *lan*.
Product Type	Asset product type.
Problem Type	Type of problem being reported.
Assignment	Assignment group to review this call.
Severity	Indicates how pressing an incident is for the caller. The severity can be *Critical, Major, Medium, Low, or Very Low*. The default is *Low*.
Site Category	Indicates the level of support to be dispersed. ■ **A - Critical Site**—large site or campus location that justifies on-site support resources. A critical site routinely requires extended hours of support. ■ **B - Major Site**—medium size location that justifies resources support by field-based technicians. ■ **C - Satellite Site**—small location that is supported by field-based or visiting technicians. ■ **D - Home Site**—home location of remote or field-based user. This site is supported by field-based or visiting technicians.
Projected SLA	Service Level Agreement covering the affected equipment.

Field	Description
Entitlement	Noneditable field. The system automatically checks to determine if a particular caller, based upon his or her SLA, has the right to help desk service at the current time of day and/or day of the week. If the service level agreement does not provide service to the caller for that period, the system automatically notifies the first level technician by displaying an entitlement prompt.
Notify By	How the caller should be notified when the call report is closed: ■ **None**—no notification is sent. ■ **Email**—Email is sent. *Email* is the default setting. ■ **Telephone**—help desk personnel call the caller.
GL Number	General ledger number.
Bill To	To where the bill should be mailed, whether it be a department or a person. ■ **Dept**—bill the department. ■ **Contact**—bill the contact.
Cause Code	Links this ticket to a *Probable Cause* record. Cause codes allow incident tickets to be more easily categorized and assigned, simplifying reporting and tracking. When a cause code is added to an incident ticket using the Fill function, accompanying information, such as Category and Description, can also be added to the ticket from the corresponding probable cause record.

Resolution Detail tab

Field	Description
Call Resolution	How the call was resolved.
Resolution Code	Code to allow the call ticket to be more easily categorized, simplifying reporting and tracking. When a cause code is added to a ticket using the **Fill** function, accompanying information, such as Category and Description, can also be added to the ticket from the corresponding probable cause record.

Options Menu

Option	Description
Find Solution	Accesses the Knowledge Base to search for possible solutions to the incident reported in the call. See *Knowledge Base - Diagnostic Aids* on page 561 for more information.
SM Call List	Access the Call List for the current user.
Related | Quotes	Accesses related open quotes.
Get-Answers>Open	Opens Get-Answers in a browser. Choose this option when you want Get-Answers opened, so that you can type your own query. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Search Solution	Uses the text in the **Description** field as the query string for Get-Answers. A browser window opens with a list of results from the search query. Choose this option when you think the Description will "find" quality answers within Get-Answers. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Retrieve Solution	Inserts a Get-Answers solution into the ServiceCenter call record. This option requires a Get-Answers record to be open. Choose this option after you have searched for a solution and you have found the one to apply to the call. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Author Solution	Allows users to add new entries derived from ServiceCenter to the Get-Answers knowledge base. This option is available only for resolved calls and when Get-Answers is integrated with ServiceCenter.
Knowlix>Search Solution	Access Peregrine Systems' Knowlix product.
Knowlix>Retrieve Solution	Retrieve information from the Knowlix product.
Get SLA ID	Get the Service Level Agreement ID that covers the tickets for a particular service.
Get Contract/SLA	Get Service Level Agreement covering the affected equipment.
Notify	Users to be notified when the call report is closed:
Add/Edit Contact	Accesses the contact record for the caller entered in the **Reported By** field. If this field is blank, a blank contacts form displays from which you can search for a contact record.

Option	Description
Remote Control>Remote Manager	Connects to the **Remote Management** utility, if installed. Refer to the *Remote Management/ServiceCenter Interface Guide*.
Remote Control>Connect to Device	Allows you to connect to the network address of the asset listed in the current record. Part of the Remote Management application.
Get Service Contract	Get service contract covering the affected equipment.

Creating a Call Report

To open a new call report:

1 Click **Take New Calls** on the ServiceCenter Home menu.

The call report form (Figure 4-6 on page 122) displays.

ServiceCenter automatically fills in the **Call ID** field, assigning a unique number with a **CALL** prefix to the call.

2 Enter the caller's name in the **Contact Name** field.

-or-

Click **Fill**, or press **F9**, to access a QBE Record list of ServiceCenter users (*contacts*).

Note: When using the Fill function to replace the information in a field already containing data, clear the field before attempting to fill new data into the field. If the field contains data, the Fill function cannot operate.

3 Double-click on the desired contact in the QBE Record list, for example, Greg Hawthorne (HAWTHORNE, GREG). The associated fields are automatically filled in.

Note: If an asset is linked to this contact, that information is automatically added to the call record. If multiple assets are linked to the contact, a QBE Record list displays. Double-click the affected asset. This example used ACMEpc015.

The information for ACMEpc015 and the contact name (Hawthorne) are filled into the call report form (Figure 4-7 on page 129).

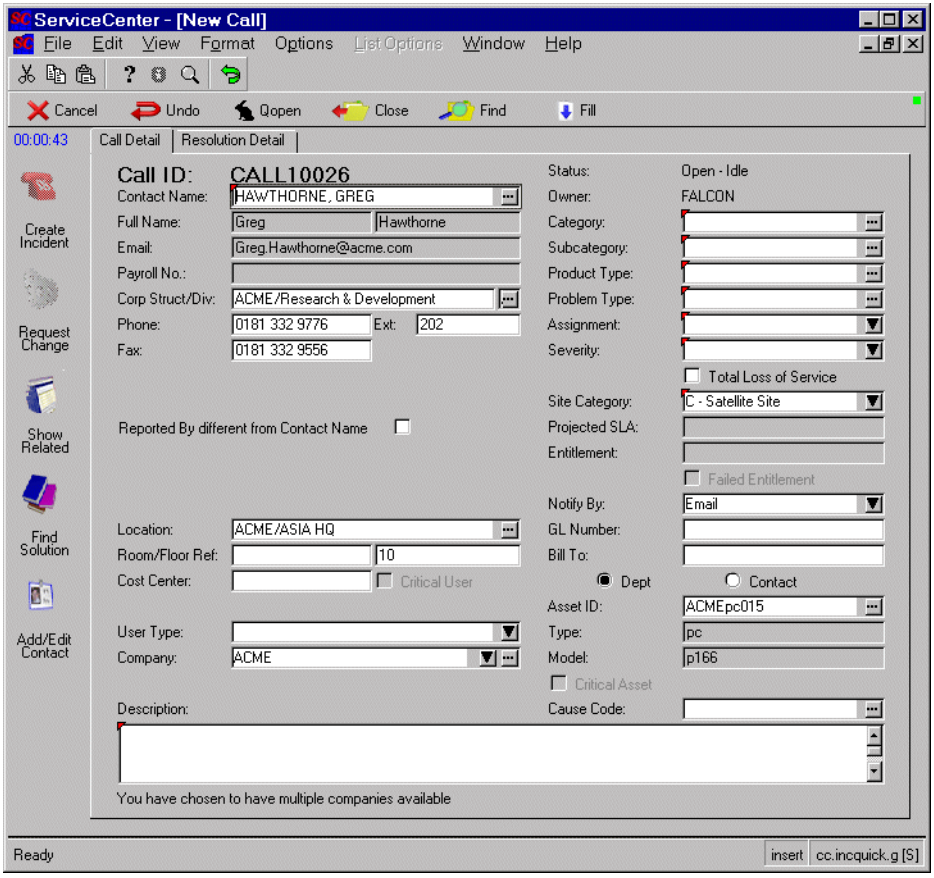


Figure 4-7: New Call form

4 By default, the Service Level Agreement (SLA) feature is unavailable. If your system has Service Level Management, refer to the *Application Administration Guide* for instructions.

5 If the **Asset ID** field is blank or the incorrect asset is listed, update this field with the information from this call.

   a Click **Fill**, or press **F9**, to access a QBE Record list of ServiceCenter assets.

   b Double-click the desired asset in the QBE Record list.

6 The **Owner** field is automatically filled in with the name of the current Service Management user (the user ID you used to log on).

7 In the **Severity** field, enter a severity code for the call. You can type the code or click the down-arrow and select from the drop-down list.

For this example, use 3- Medium.

8 The **Status** field automatically defaults to Open-Idle.

9 In the **Notify By** field, enter the preferred method to notify this caller when the call is closed. Use the **down arrow** to select a notification method. By default, the setting is Email.

For this example, use the default setting.

For more information on this field, refer to the section *Importance of the Notify By Field* on page 132.

10 Select a Category for the call report. Click **Fill** to bring up a record list of categories and select a category. Then, select further refinements, as asked, for the Subcategory, Product type and Problem type.

For this example, use client system and, when asked for further choices, select hardware, desktop, and keyboard for the Subcategory, Product type and Problem type.

Important: If you intend to open a request for change in Change Management, be sure to select a Change category here. This activates the **Request Change** button, allowing you to have access to and create a ticket in Change Management.

11 Enter the **Assignment** group responsible for this call. You can enter two groups. You can accept the defaults for this call category, subcategory, product type, and problem type; you can type the code; or you can use the **down arrow**.

For this example, accept the presented default, ONSITE SUPPORT.

12 Enter a call **Description**.

For this example, enter:
The space bar is sticking on my keyboard

Enter a resolution in the **Call Resolution** field if the incident is resolved during the call.

For this example, leave this field blank.

13 Click **Qopen**, or press **F2**. This creates a call report record and saves the information to the incidents file.

At this point, ServiceCenter performs all necessary validations to determine if the information entered is valid. If invalid information is detected, ServiceCenter returns an error message or a list of values to select for that field.

A message displays in the status bar stating:
Call CALLxxx has been saved
where *xxx* is the Call ID.

The fields in the form are cleared and the Call ID number is automatically incremented by one. You are now ready to enter a call report for your next call.

Importance of the Notify By Field

The way in which you fill out the **Notify By** field can affect how a call is closed if it has been associated to another record. For example, if you associate an incident ticket to a call report, when the incident ticket is closed the related call report is also closed according to the information in the **Notify By** field, as follows:

Notification	Description
None	The call is closed.
Email	An e-mail is sent to the contact listed in the call informing him that the related record has been closed. The call is then closed.
E-mail Notification	An event with critical problems triggers either a single e-mail notification message or several different messages to be emailed to one or more designated individuals or group of people, based on the selections made in the Notification table. See the *System Tailoring* guide to learn about the notification message.
Fax	A fax is sent to the contact listed in the call. The call is then closed.
Page	A page is sent to the contact listed in the call. The call is then closed.
Telephone	A required action is added for the call. This tells the user why the customer needs to be called back. It also prevents the call from being closed until call required actions have been inactivated.

Note: Page and fax notification are not available out of the box. These notification types must be added and configured by an administrator. In addition, there is no dependency between the **Notify By** field and the Notification Engine.

Creating a Call Report by Copying an Existing Record

You can create a new call report by copying an existing report.

To clone (copy) an existing report:

1 Access an existing call report.

2 Change any appropriate data in the fields to create your new record.

Note: You must clear the data in a field to use the Fill and Find functions.

3 Click **Clone**, or press **F1**. The next available Call ID number in the system is used.

Note: The new Call ID number is not dependent upon the Call ID number of the call being cloned.

4 Click **Save** or press **F2**. This creates a new call report record and saves the information to the incidents file.

Options Menu—Existing Call Report

An existing call report **Options** menu contains the following options:

Option	Description
Get-Answers>Open	Opens Get-Answers in a browser. Choose this option when you want Get-Answers opened, so that you can type your own query. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers>Search Solution	Uses the text in the **Description** field as the query string for Get-Answers. A browser window opens with a list of results from the search query. Choose this option when you think the Description will "find" quality answers within Get-Answers. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Retrieve Solution	Inserts a Get-Answers solution into the ServiceCenter call record. This option requires a Get-Answers record to be open. Choose this option after you have searched for a solution and you have found the one to apply to the call. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Author Solution	Allows users to add new entries derived from ServiceCenter to the Get-Answers knowledge base. This option is available only for resolved calls and when Get-Answers is integrated with ServiceCenter.

Option	Description
Set Reminder	Allows you to schedule a reminder to be sent to you at a specified time through e-mail, a page, or a pop-up message.
Print Record	Prints this call report record to the user's default ServiceCenter printer.
Notify	Allows you to send a message containing the data in call report ticket to other ServiceCenter users.
See Service Records for this Contact	Searches the ServiceCenter database for incident tickets associated to the caller (contact) in this call report. The contact is the person listed in the Reported By field. The results are displayed in a QBE Record list. Double-click on a record to display it.
Related	Opens sub-menus that allow you to associate the current call report to an existing incident ticket, Change Management change, or Request Management quote; view related incidents, changes, or quotes; or open a new incident, change, or quote.
Add Required Action	Allows you to add a required action to this call report. See *Add a Required Action* on page 142.
Find Solution	Accesses the Knowledge Base to search for possible solutions to the incident reported in the call. See *Knowledge Base - Diagnostic Aids* on page 561 for more information.
Create Hot News	Create Hot News item within the Knowledge Base. See *Knowledge Base - Diagnostic Aids* on page 561 for more information on Hot News.
Knowlix>Search Solution	Access Peregrine Systems' Knowlix product.
Knowlix>Retrieve Solution	Retrieves information from the Knowlix product.
Remote Control>Remote Manager	Connects to the Remote Management utility, if the utility is installed. Refer to the *Remote Management/ServiceCenter Interface Guide*.
Remote Control>Connect to Device	Allows you to connect to another asset. Part of Remote Management.
IND System Analyzer	Launches remote data collection for a system asset. Part of Network Discovery.

List Options Menu—Existing Call Report

The existing call report form **List Options** menu contains the following options:

List Option	Description
Count	Counts the number of records in the current call list.
Print List	Allows you to print a copy of the current call list.
Refresh List	Updates the current list.
Modify Columns	Allows you to change the column headings and related information in the record list.
Export to Excel	Exports the current Call 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.
Export to Text File	Exports the Call 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.
Save as Inbox	Allows you to save the current list as an inbox.

Associating a Call Report with Another Application Record

You can associate a call report with an existing Incident Management ticket, Request Management quote, or Change Management change. Before associating a call report with another record, make note of the ID number of the record. For example, an incident ticket could have an ID number of IM1001. You need to enter this number in the following process.

To associate a call report with another record:

1 Access a call report.

2 Select **Options>Related>Incident/Quote/Change>Associate**.

A dialog box displays asking:

Associate Call xxxxxx with which Incident/Quote/Change?

3 Enter one of the ID numbers:

- For an Incident ticket, enter the number in the form of IM*xx*, where *xx* is the incident ticket number.
- For a Quote, enter the number in the form of Q*xx*, where *xx* is the quote number.
- The Change number does not have a defining letter.

-or-

4 Click Search in the Associating Records dialog box to locate the appropriate ID number.

5 Click **OK**. A confirmation displays in the status bar.

Updating a Call Report

To modify a call report:

1 Access the call report from either the Call List or from a search.

For example, you could access the call report created in *Creating a Call Report* on page 128.

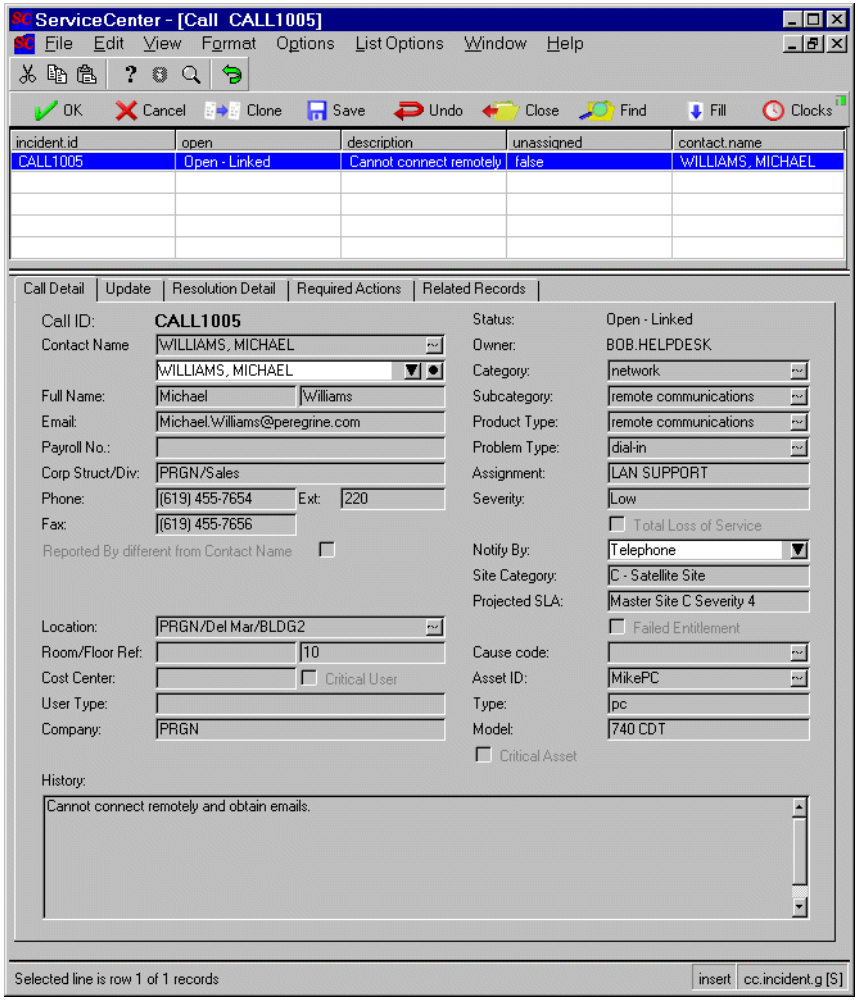


Figure 4-8: Call Report Record

2 Modify any fields that need revision.

Note: If you are modifying a field that uses the Fill and Find functions, clear that field of any existing data before using these functions.

3 Save the updated record.

a Click **Save** or press **F4** to save the record and leave it displayed.

b Click OK or press **F2** to save the record and return to the form from which you accessed this report.

Setting a Reminder

From an existing call report, you can schedule a reminder to be sent to you at a specified time.

To access the Set Reminder feature and schedule a reminder:

1 With an existing call report displayed, select **Set Reminder** from the Options menu.

The Set Reminder form displays.

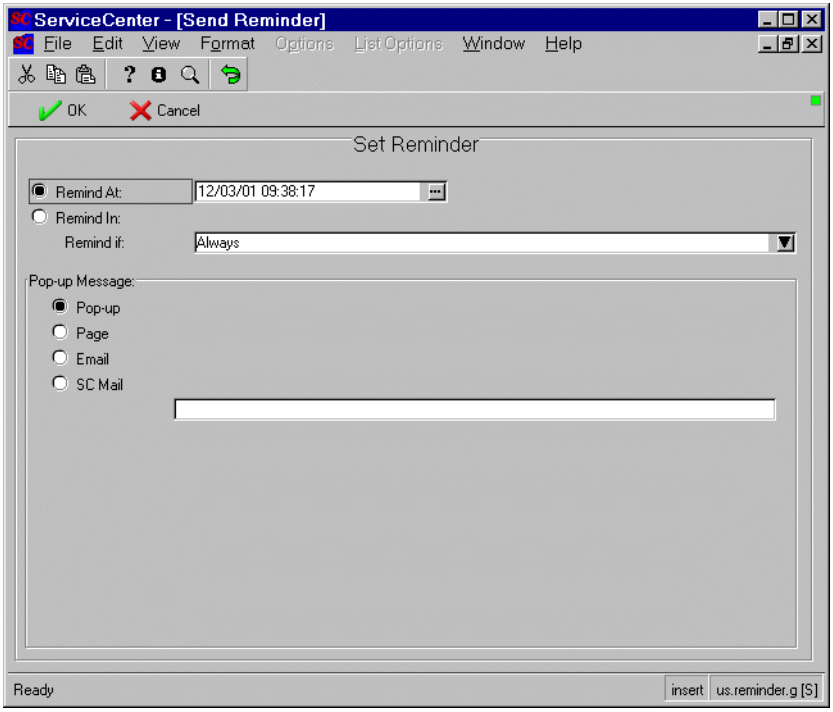
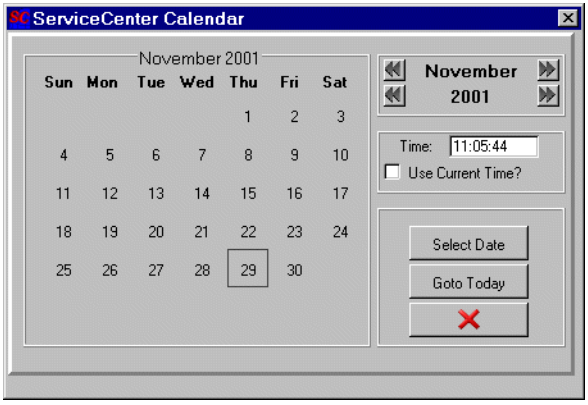


Figure 4-9: Set Reminder form

2 Choose one of the following to set the time when the reminder occurs:

- Select **Remind At** to set a reminder for a particular day and time.
- Select **Remind In** to set the reminder to occur at a particular interval. This options brings up two fields; enter the time interval, and select the shift you are working from the drop-down list.

3 Click **Browse** (next to the **Remind At** field) to bring up the ServiceCenter Calendar. You can use the calendar to select the date and time you want the reminder to occur.

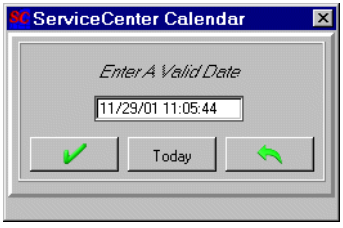


a Enter the time in the **Time** field.

b Click on the day you want the reminder to occur. The dialog box closes and the information is filled into the **Remind At** field. (You can use the arrows at each side of the month and year to move forward or backward.)

c If you want to return to today's date, click **Goto Today**.

d If you want to go to a specific date, click **Select Date** and type the date in the dialog box displayed. Click **OK** to accept the entry and return to the Calendar. Click the back arrow to return to the Calendar with no change.



4 In the **Remind if** field, select an option from the drop-down list:

- Always (the default).
- Call has not been updated
- Call is still open
- Call is still assigned to me

5 In the Pop-up Message area of the form, select the type of notification you want:

- Pop-up
- Page
- Email
- SCMail

If you select Pop-up or Page, type the reminder message in the **Message** field.

6 Choosing **Email** or **SCMail** displays two **Message Type** option buttons. Select the type of e-mail message you want to send.

Note: There is also a **Title** field where you can enter a title for the e-mail message.

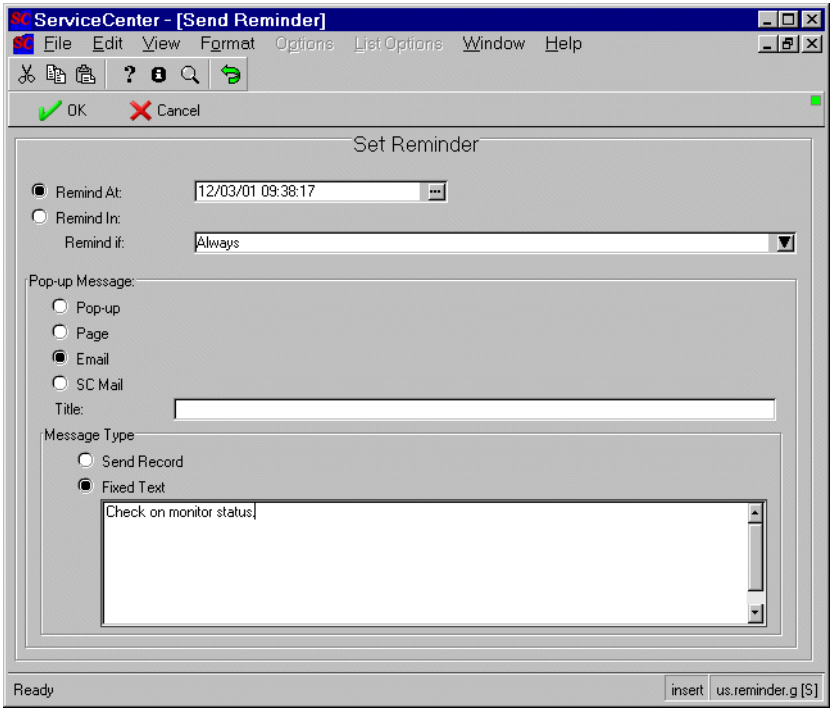


Figure 4-10: Set Reminder form with Fixed Text Field Displayed

7 Select the message type option in the *Message Type* frame.

- **Send Call Record**. This option includes a copy of the call record in the e-mail.
- **Fixed Text**. Selecting this option displays a text box in which you can type the message you want to display in the e-mail.

8 When you have made all your selections, click **OK**.

The initial call report from which you set the reminder displays.

Add a Required Action

The call report form contains the **Required Actions** tab, listing any required actions for this call report. These actions can be added only to existing call reports. The Required Actions function allows you to track the steps necessary to resolve a call report.

To add a required action:

1 Select **Add Required Action** from the Options menu in an existing call report. The *dependency* form displays.

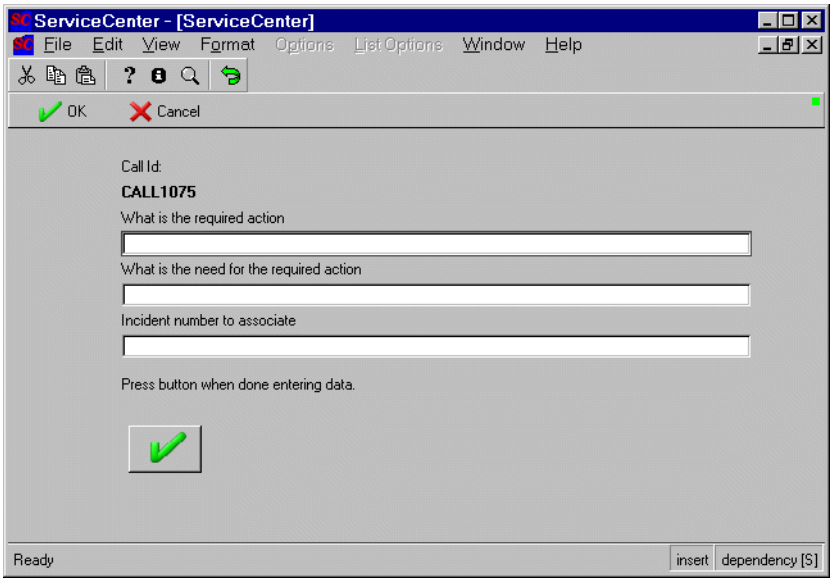


Figure 4-11: Required Actions Prompt

2 Enter the required action in the **What is the required action?** field.

3 Enter a reason for needing the required action.

4 Enter the Incident number to associate to this call report.

5 Click **OK**.

-or-

Click Cancel to exit the form and return to the call report without adding any required actions.

Closing a Call Report

If your Incident Management environment is set up for full model checking or cascading closures, call reports are automatically closed when an associated incident ticket is closed.

If your Incident Management environment is set up for call dependent ticket closures or for independent ticket and call closures, you need to close a call report individually.

To close a call report:

1. Access the call report record.
2.  Click Close, or press F7.

   If you accessed the call report from a QBE Record list, notice that the status of the call is now listed as **Closed**.

5 CHAPTER Scheduled Maintenance

Scheduled Maintenance has been designed to help new users understand basic Scheduled Maintenance usage.

Topics in this chapter include:

Overview

What is Scheduled Maintenance?

Scheduled Maintenance is a module for ServiceCenter that enables users to:

- Establish a formalized Scheduled Maintenance system, proactively reducing unplanned outages and system failures by servicing systems before they fail rather than afterwards.
- Define and schedule re-occurring maintenance tasks, including Incident tickets, Change requests and Request Management quotes, using closed loop integration with ServiceCenter.
- Keep all Scheduled Maintenance tasks in a single repository, insuring that important maintenance is done.
- Automatically notify staff of all maintenance items as they become due, via ServiceCenter.
- Easily enter and update Scheduled Maintenance tasks even when unfamiliar with ServiceCenter.
- Have audit information available as necessary.
- Create sophisticated or detailed maintenance tasks.
- Keep existing ServiceCenter customizations and tailoring.

Why Use Scheduled Maintenance?

Scheduled Maintenance makes it easy for ServiceCenter users to know when to do a particular piece of standard maintenance. It enables users to define and schedule maintenance tasks, and automatically generates the appropriate Incident tickets, Change requests, or Request Management quotes. Scheduled Maintenance supports the definition and storage of as many maintenance tasks as are required for your organization.

Scheduled Maintenance expedites these three things:

- Creation and storage of maintenance tasks.
- Generation and distribution of maintenance requests at appropriate times.
- Execution and tracking of Scheduled Maintenance tasks.

With Scheduled Maintenance, users can define and schedule maintenance tasks and store them in a central repository. The stored maintenance tasks automatically generate Incident tickets, Change requests, or Request Management quotes as they become due. The maintenance history and the auditing information for each task is available if and when it is required.

Scheduled Maintenance has an easy-to-use point and click task creation system. This enables users who are familiar with maintenance requirements to enter tasks, even if they are unfamiliar with ServiceCenter customization. Additionally, the powerful tailoring options allow advanced users to create extremely sophisticated and detailed maintenance tasks.

Scheduled Maintenance runs within the ServiceCenter system. It installs without requiring an upgrade, and has no impact on future ServiceCenter upgrades. Its seamless integration into a pre-existing ServiceCenter installation protects your organization's investment in the ServiceCenter system, including all tailoring and customizations.

Accessing Scheduled Maintenance

When installing ServiceCenter 4.0 or later, Scheduled Maintenance can be started from the command line, or from ServiceCenter's Main menu. If you have purchased and installed Scheduled Maintenance separately, the command line option works, but the menu may be configured differently. (See the *Application Administration Guide* for more information.)

To open the Scheduled Maintenance menu:

1 Log onto ServiceCenter.

2 Do one of the following:

- Click the Scheduled Maintenance menu button on the Main Menu.

  The Scheduled Maintenance menu appears.

- Or -

- Bring up the command line inside of your ServiceCenter system (from the main menu, choose **View>Command Line** in the tool tray) and type `*mRT`.

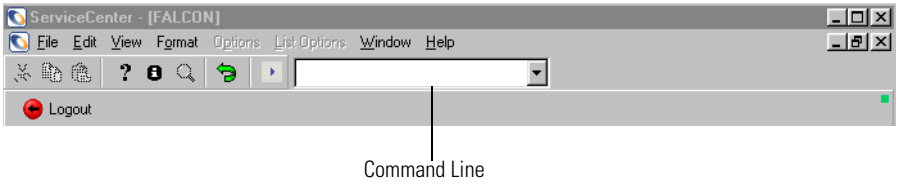


Figure 5-1: Command Line

The Scheduled Maintenance menu appears.

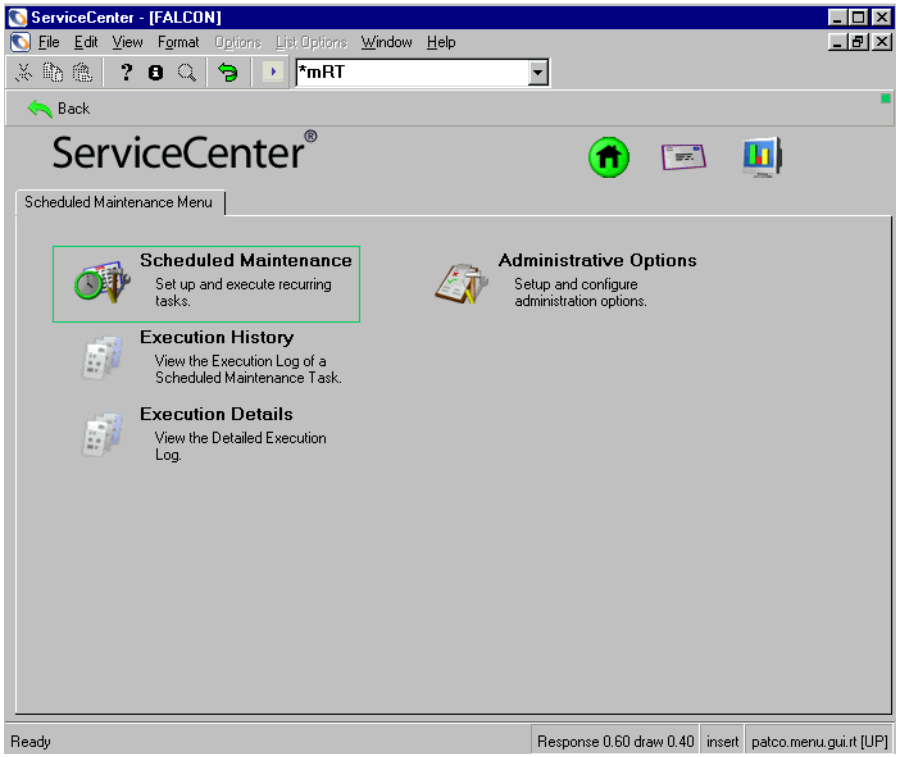


Figure 5-2: Scheduled Maintenance Menu

Note: By entering *m on the command line you are telling ServiceCenter to immediately jump to a menu whose name immediately follows the *m. Entering *mRT jumps you to the menu named RT, the Scheduled Maintenance main menu. Entering *mCC takes you to the menu named CC, the Service Management main menu.

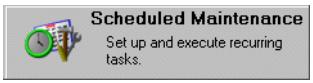
To exit Scheduled Maintenance:

Click **Back**.

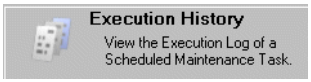
You return to the main form.

Menu Buttons

The Scheduled Maintenance menu contains the following buttons:



The **Scheduled Maintenance** button allows you to create and edit Scheduled Maintenance tasks.



The **Execution History** button displays a list of each time a Scheduled Maintenance task was launched for execution.

The **Execution Details** button displays the results of a Scheduled Maintenance task's execution. The result may be that an incident ticket was generated, or change request was generated, or a request management quote was generated. From there, the appropriate ticket or tickets (Incident, Change, or Request) may be viewed.

The **Administration Options** button allows users to select options for the template base generation Scheduled Maintenance tasks from Incident tickets, Change requests, or Request Management quotes.

Creating a Scheduled Maintenance Task

Follow these steps to create and execute a Scheduled Maintenance Task:

Step 1 *Opening a Scheduled Maintenance Task*, next section.

Step 2 *Naming and Describing a Task* on page 152

Step 3 *Defining a Task's Execution Criteria* on page 153

Time Scheduled Tasks on page 154

Demand Based Tasks on page 163

Step 4 *Defining a Task's Effect and Details* on page 167

Step 5 *Saving a Task* on page 182

Step 6 *Executing a Task* on page 184

Opening a Scheduled Maintenance Task

Scheduled Maintenance tasks can be created from:

- The Scheduled Maintenance menu
- A ticket in Incident Management, Change Management, or Request Management
- An asset in Inventory Management

Open a new ticket using one of the following methods.

Create a task from the Scheduled Maintenance menu:

1. Open Scheduled Maintenance using the steps provided in *Accessing Scheduled Maintenance* on page 148.
2. Click the **Scheduled Maintenance** button.

   A blank ticket opens in Scheduled Maintenance.

   -Or-

   Create a task from a specific ticket in Incident Management, Change Management, or Request Management:

1. Open a ticket in Incident Management, Change Management, or Request Management.
2. Choose **Options>Generate Maintenance**.

   A new ticket opens in Scheduled Maintenance, with some data automatically filled in from the ticket, and from the ticket that was selected as the template. See *Automated Task Generation* in the *Application Administration Guide* for more information on this process.

   -Or-

   Create a task for an asset in Inventory Management:

1. Open the asset record in Inventory Management.
2. Choose **Options>Scheduled Maintenance>Generate Recurring Incidents, Generate Recurring Changes, or Generate Recurring Requests**.

   A task opens in Scheduled Maintenance, incorporating some data from the asset record, and from the ticket that was selected as the template. See *Automated Task Generation* in the *Application Administration Guide* for more information on this process.

Naming and Describing a Task

The first step in creating a task is to name it and enter the necessary descriptive information, including whether or not the task is active. Each task has a name, for easy reference, and a description, for detailed information.

To name and describe a task:

1. Click **Scheduled Maintenance**. This takes you into Database Manager and allows you to start working on Scheduled Maintenance tasks.
2. Type a name for the task in the **Name** field.

   Every task needs a unique name. This name can offer some insight into what the task does, but you may use any naming scheme, as long as each name is unique.
3. Click the **Description** tab and enter a description for the task in the text window, if desired. A description is optional, but can often be useful to someone looking at the task later.
4. Select the Active? check box to make the task active, if desired. Every task must be active or inactive. Inactive tasks are still in the system, but create no work orders or take any other action. No task is active unless the Active? check box is selected.

When you are finished your task looks like this:

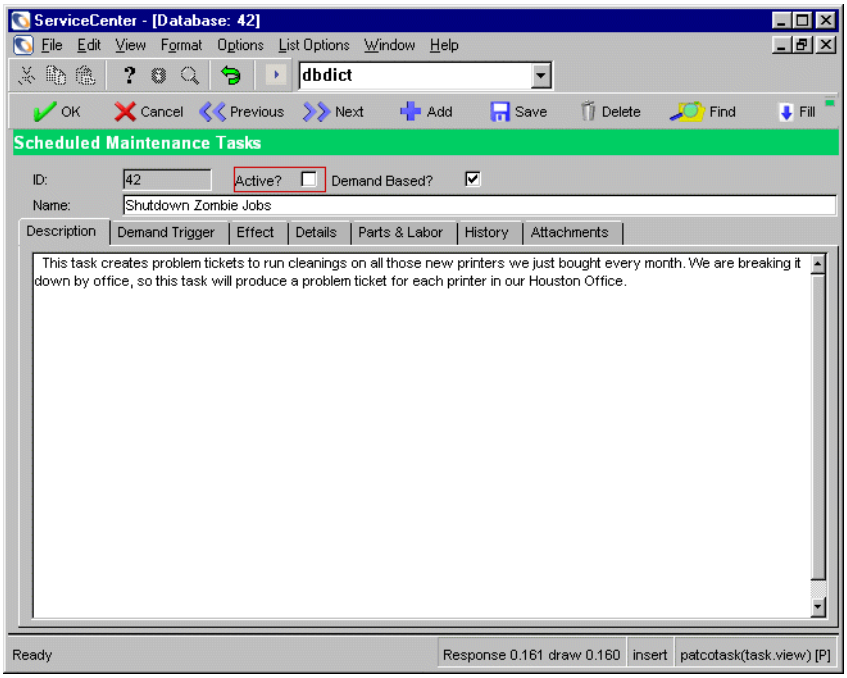


Figure 5-3: Describing a Task

Defining a Task's Execution Criteria

Maintenance tasks can be broadly differentiated into two classes:

- Scheduled tasks execute according to a particular chronological pattern e.g. run every Tuesday at 4:00 AM, or run on the first monday of January every year.
- Demand based tasks as well which are triggered by changes within your inventory module e.g. run this task whenever the available drive space on the file server drops below 10 GB, or run this task every time the printer prints 8,000 pages.

The two types of tasks are differentiated by using the Demand check box on the top bar of a maintenance task definition. The default is creating and defining a time scheduled task. If you select the Demand check box, you will create and define a demand based task.

Time Scheduled Tasks

Time scheduled tasks execute according to a defined chronological pattern, such as run every Tuesday at 4:00 AM or the second Thursday of every month. Scheduled Maintenance supports several different types of scheduling. Select the one that best suits the task.

There may be a delay between the time you select a task to run and the time that it actually does run. This is because Scheduled Maintenance, by default, checks for tasks to execute every minute. If it checked at 11:59:30 and 12:00:30 then the Incident ticket, Change request, or Request Management quote would be opened at 12:00:30, not at 12:00:00.

Also, there can be a few seconds delay as the Incident ticket, Change request, or Request Management quote is generated and saved. Changing the frequency on the inhook scheduler as discussed in *Load Balancing* in the *Application Administration Guide*, can minimize this delay.

If your system is down when a task is supposed to run, the task executes as soon as the system comes back up, and reschedules for the next appropriate time according to the schedule you set up.

To set the schedule for a task:

1. Click the **Schedule** tab.
2. Choose the appropriate option button to select a repeat interval in the **Repeat Task** frame. The available selections change depending on which repeat interval you select.

   The only options available for each repeat interval are those options that lie on the same line as the selected option button. No other options work.
3. Select the time zone using the **Start Task at** or the (**Execute Task at**) field. If you leave this field blank, it defaults to your current time zone.
4. Set one of the following schedules:
   - Use *Regular Scheduling* on page 155 to set up simple repeat interval.
   - Use *Weekly Scheduling* on page 156 to set up a weekly repeat interval.
   - Use *Monthly Scheduling by Date* on page 158 to set up a monthly repeat interval.
   - Use *Monthly Scheduling by Day* on page 159 to set up a monthly by day repeat interval.

- Use *Annual Scheduling by Date* on page 160, to set up an annual repeat interval.
- Use *Annual Scheduling by Day* on page 161 to set up an annual by day repeat interval.
- Use *Arbitrary Scheduling* on page 162 to set up an arbitrary schedule.

5 Select one of the following duration options in the **Range of Recurrence** frame, if desired.

- **No End**—for a task that should recur forever.
- **End After _ Occurrences**—enter a number in the field for a task that should recur a specified number of times.
- **End by**—enter a date for a task that should recur until a certain date.

6 After you have scheduled the task, go to *Defining a Task's Effect and Details* on page 167 and set its effects.

Regular Scheduling

Use this option to select a simple repeat interval or to make a task run at a certain time of day. For example, starting at 11/30/01 00:00:00 execute this task every hour on the hour.

To make a task run at the same time every day you would set the start time and then a select a repeat interval of 24 hours. You do this by setting the interval to '00:00:00'. ServiceCenter won't accept '24:00:00'.

To set a regular repeat interval schedule:

1 Select the **Regularly** option button.

2 Enter the date and time for the first occurrence in the **Start Task At** field.

In the following screenshot, we have created a task that runs every two hours, starting at 6:00 a.m., February 26th, US/Pacific Time.

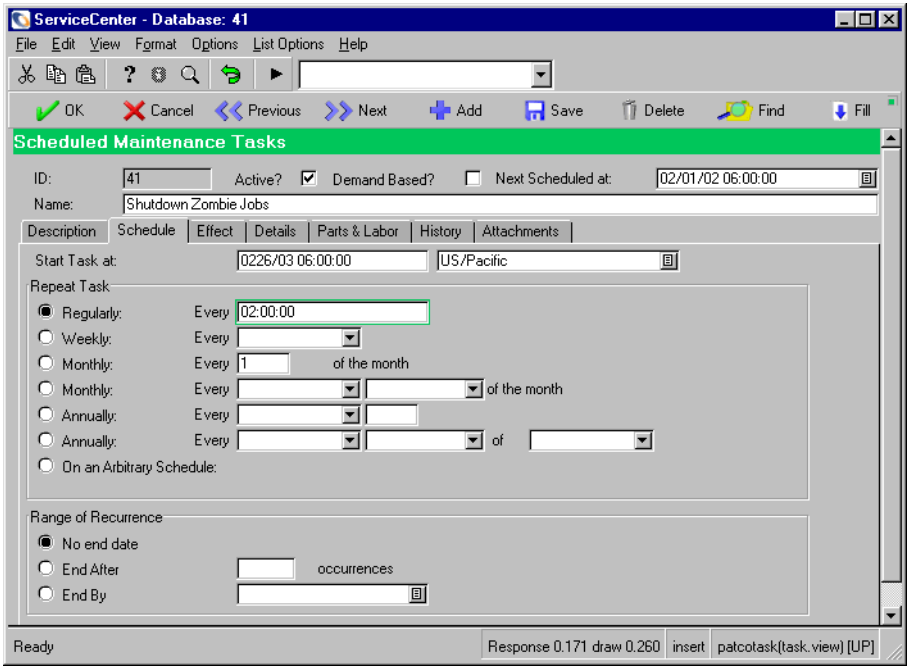


Figure 5-4: Regular Scheduling

Weekly Scheduling

To set a weekly repeat schedule:

1 Select the **Weekly** option button.

2 Enter the time that you want the task to run in the **Execute Task At** field.

3 Select the day of the week from the **Every** field drop-down list.

In the example screenshot below, we have set up a task to run every Monday at 6 AM, Pacific time.

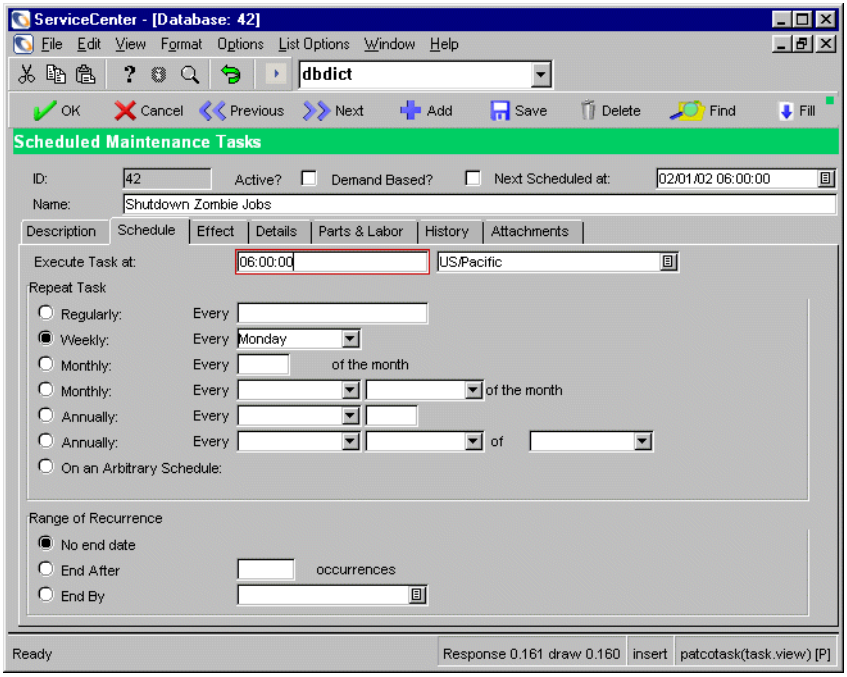


Figure 5-5: Weekly Scheduling

Monthly Scheduling by Date

To set a monthly repeat schedule:

1 Select the top **Monthly** option button.

2 Enter the time that you want the task to run in the **Execute Task At** field.

3 Enter the day of the month (an integer between 1 and 31, inclusive) on which you want this task to run in the **Every _ of the Month** field.

In the example screenshot below, we have set up a task to run on the first of every month at 6 AM, Pacific time.

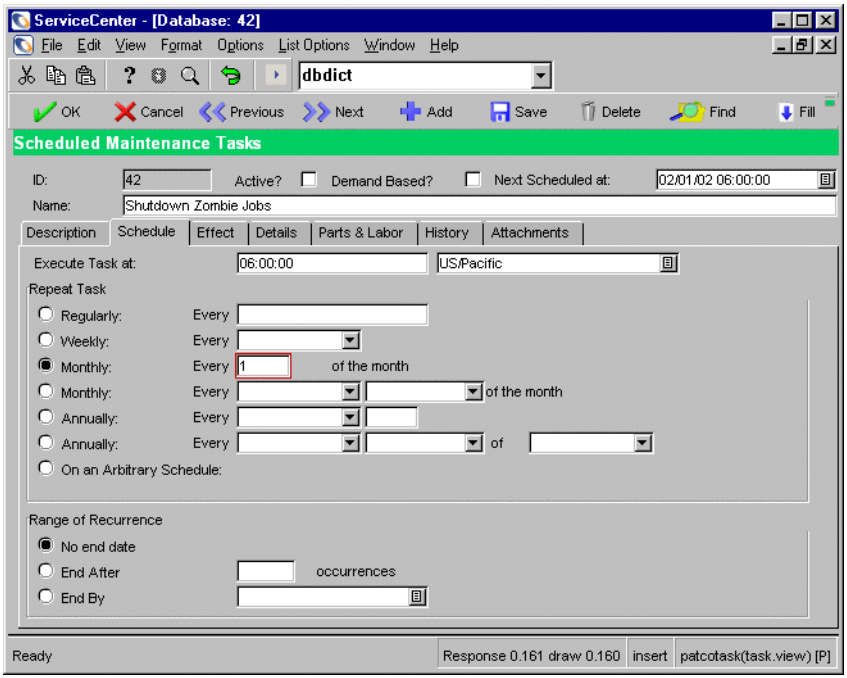


Figure 5-6: Monthly Scheduling by Date

Monthly Scheduling by Day

To set a monthly repeat schedule:

1. Select the bottom **Monthly** option button.
2. Enter the time that you want the task to run in the **Execute Task At** field.
3. Enter the week on which you want this task to run by selecting it from the **Every** field drop-down list.
4. Enter the weekday on which you want this task to run by selecting it from the **Every** field drop-down list.

In the example screenshot below, we have set up a task to run on the every second Tuesday of the month at 6 AM, Pacific time.

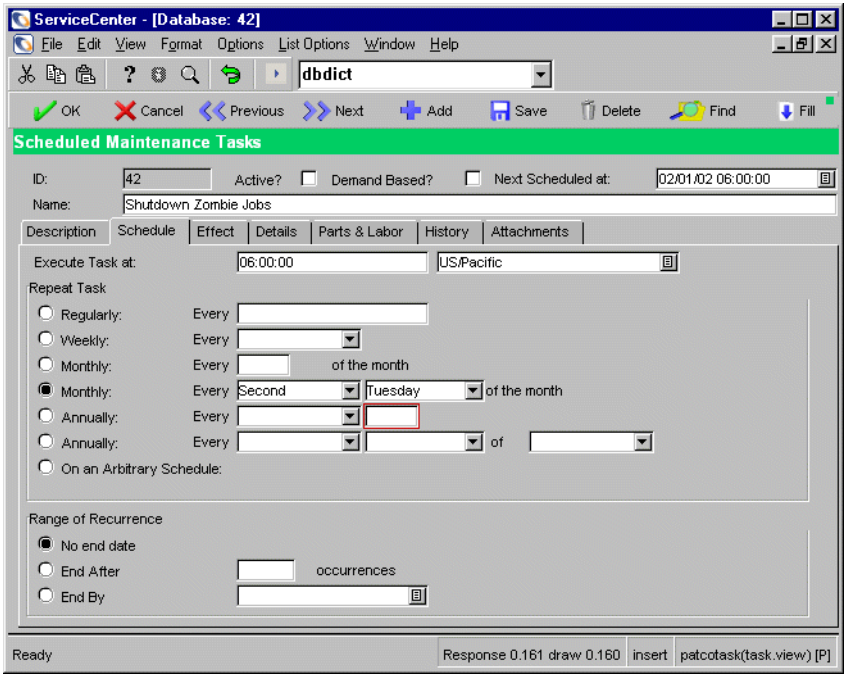


Figure 5-7: Monthly Scheduling by Day

Annual Scheduling by Date

To set an annual repeat schedule:

1. Select the top **Annually** option button.
2. Enter the time that you want the task to run in the **Execute Task At** field.
3. Enter the month on which you want this task to run by selecting it from the **Every** field drop-down list.
4. Enter the day of the month (an integer between 1 and 31, inclusive) on which you want this task to run in the field to the right of the one where you entered the month.

   In the following screenshot, we have set up a task to run every year on August 29th at 6 AM, Pacific time.

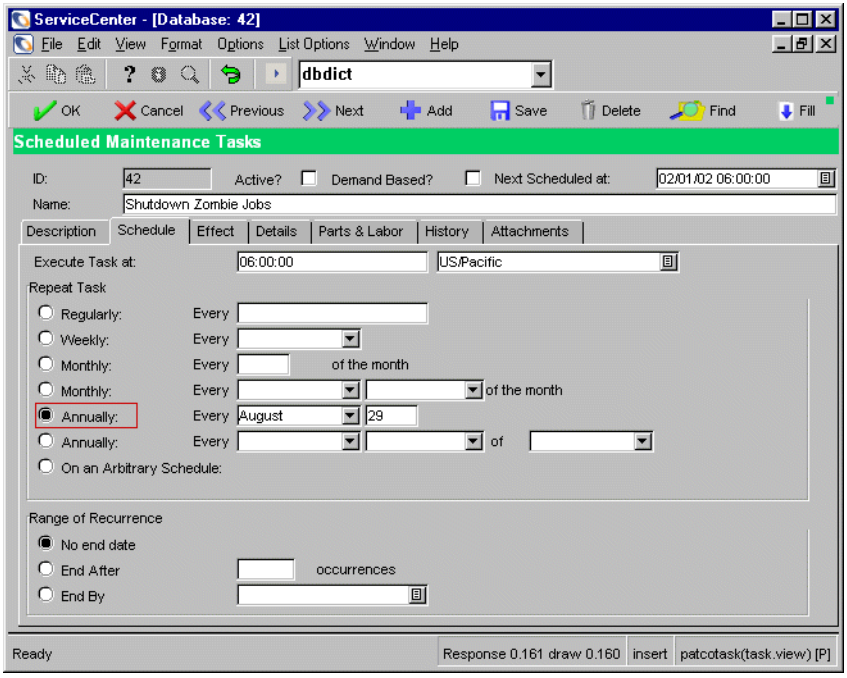


Figure 5-8: Annual Scheduling by Date

Annual Scheduling by Day

To set an annual by day schedule:

1. Select the bottom **Annually** option button.
2. Enter the time that you want the task to run in the **Execute Task At** field.
3. Select the week on which you want this task to run by selecting it from the **Every** field drop-down list.
4. Enter the weekday on which you want this task to run by selecting it from the **Every** field drop-down list.
5. Enter the month on which you want this task to run by selecting it from the **Every** field drop-down list.

In our example, we have chosen to run a task at 6 AM Pacific time, on the second Wednesday of December, every year.

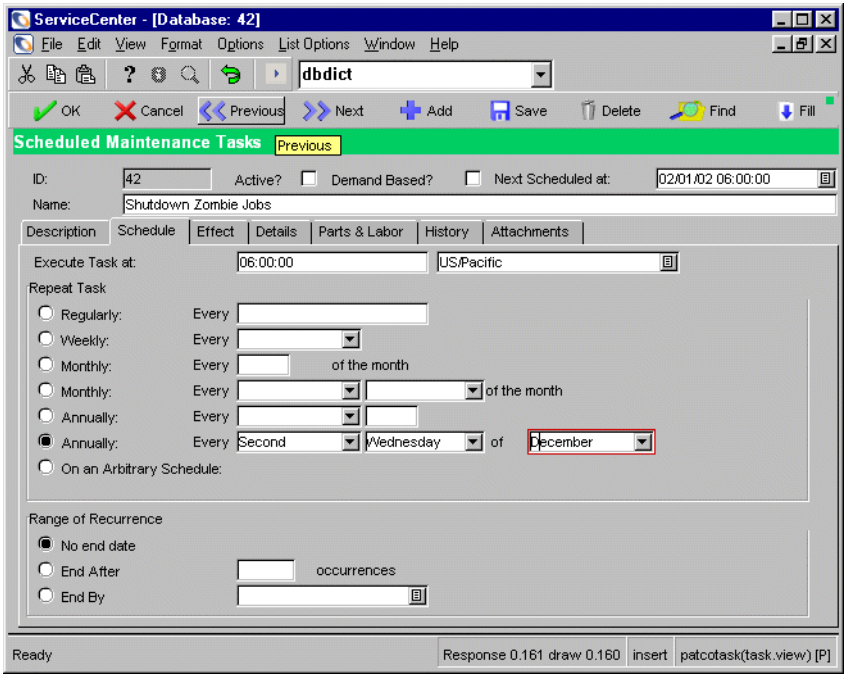


Figure 5-9: Annual Scheduling by Day

Arbitrary Scheduling

Arbitrary scheduling allows you to execute a task according to an arbitrary, user defined schedule. If you choose an arbitrary recurrence schedule, you need to fill in any and all dates upon which you want this task to recur.

To set an arbitrary schedule:

1 Select the **Arbitrary Schedule** option button in the **Repeat Task** panel.

2 Enter the specific dates and times in the **Recurrence Schedule** fields.

In the following example, we have a task which occurs on three birthdays from the author's family.

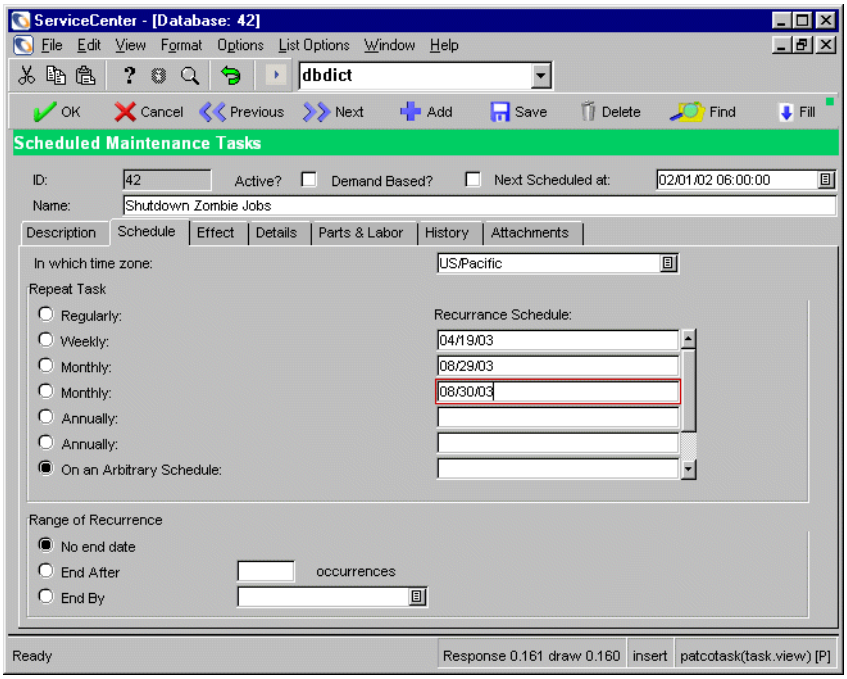


Figure 5-10: Arbitrary Scheduling

Demand Based Tasks

Demand based tasks execute in response to certain trigger conditions based on the contents of your inventory module. You can instruct ServiceCenter to monitor a particular device within ICM and execute when, and if, the device meets certain threshold criteria. For example, a task can be set to require a log dump whenever the available disk space on a server drops below 2 GB, or a task can execute when the number of devices attached to a particular router approaches the number of ports it has available.

Understanding Demand Triggers

Conceptually, demand triggers are defined by two things. The device you want to monitor, and the criteria which, when applied to that device, is to trigger your maintenance.

To Set the Demand Criteria for a Task:

1. Select the Demand check box.
2. Click the Demand Trigger tab.
3. Define the device you want to monitor. This name must match the logical name of a device within your inventory.
4. Define the criteria which triggers this task.
   a. Enter the name of the field to monitor in the Field to Monitor edit box. This name must match a field name for the device you chose in the previous step.
   b. Define a threshold sign e.g. Greater Than or Less Than
   c. Define the trigger value that, if met, will trigger this maintenance task.

The combination of a field name, a sign, and a threshold value can be viewed as a simple equation in the form:

execute task if <field name> is <sign> <threshold>.

Understanding Repeat Criteria

Demand based maintenance supports three different types of repeat criteria in an effort to model real-world maintenance activity as effectively as possible:

- Increment Based Repetition
- Quiescent Repetition
- Manual Repetition

Increment Based Repetition

Some maintenance activity is tied to a steadily increasing (or decreasing) value. Example, you want to change the oil in your car every three thousand miles. Thus, you'd expect a maintenance task to fire when you care reached 3,000 miles, then fire again at 6,000 miles, and again at 9,000, etc.

This sort of repetition is modeled by selecting either the add to the previous value check box or subtract from the previous value check box as you repeat criteria and complete the **Repeat Increment** field. The system then automatically recalculates a new threshold value by adding or subtracting your repeat increment from the previous threshold value when your task runs.

Thus, a task set to fire when the mileage field hits 12,000 with a repeat option of "add to the previous value" and a repeat increment of 3000 will file once when mileage reaches 12,000 and then automatically recalculate itself to fire at 12,000+3,000 or a mileage of 15,000.

Quiescent Repetition

This sort of repetition is modeled by selecting stop monitoring device for a specified time check box and completing the **Pause for** field. The purpose of this pause is to allow you time to execute the existing maintenance and resolve the issue which triggered the maintenance without creating multiple maintenance tasks on the issue.

Thus a task set to fire whenever the available disk space on a file server drops below 10 GB can be set to pause for a week to allow your change team time to put a new drive on the server. If, within this one week window, the available space on the server continues to fall even further below the

maintenance task's threshold value, the task does not fire a second time. If, however, at the end of the week, the available space is still beneath the threshold, the task fires again, creating a second change request, and then sleeps again for seven days.

Manual Repetition

This is a mechanism you can use when your demand based task doesn't fit into either of the above categories. A task set to **Do Not Run Again** fires once when its trigger conditions are met, and then inactivates itself until it is manually activated again. You can use this mechanism either to model one-time maintenance events or those which require human intervention to recalculate the trigger conditions.

To Set the Repeat Criteria for a Demand Task:

- Choose one of the three possible repetition models in the **Determine when to run next by** drop-down list field.
  - If you chose an increment repetition, then you will be prompted for a repeat increment in the edit box of the same name.
  - If you chose a quiescent repetition, you will be prompted for a quiescence interval in the "Pause For" edit box.
  - If you chose manual repetition, no additional information is required.

In the following example, we have set up a task to monitor device, MF-1000001 and execute whenever the available.memory field drops below 1000. Furthermore, we have specified that after this task executes, it will stop monitoring the device in question for one day in order to allow the situation to be resolved.

Note that we haven't yet defined what is supposed to occur when this task executes, merely under what conditions it executes.

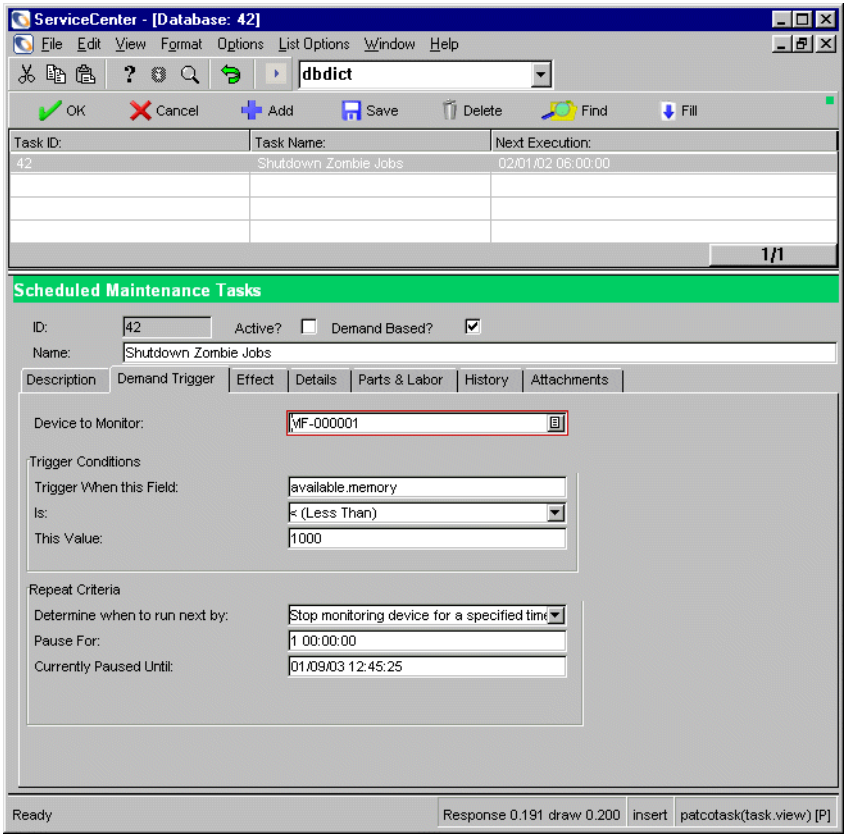


Figure 5-11: Demand Trigger Example

Notes/Limitations

- Many fields within ServiceCenter inventory which hold numeric values are, nonetheless, character fields. In general, this was implemented to allow for the storage of units along with the raw number e.g. 1,024MB or 2,000 lbs. Scheduled maintenance is capable of performing comparative operations on these quasi-numeric fields by stripping out any non numeric characters and casting the result as a number. Thus 1,024MB becomes the number 1024 for purposes of comparing it to a threshold value.

- Scheduled Maintenance monitors the requested field on the requested device, no matter what mechanism is used to modify it. Thus Scheduled Maintenance reacts to a change whether the change was via an interactive user, or via a background task or remote agent.
- It is possible to have multiple demand maintenance tasks linked to the same device. If more than one demand task is triggered by a single update to a record, then each of the tasks fires. Thus you can potentially create 2 (or more) maintenance tasks as a result of a single change to a device.
- Scheduled Maintenance reacts to changes in the device record, not changes in the maintenance task. Thus creating, or modifying, a maintenance task such that it is triggered by the current state of a monitored record will not trigger that record until a modification occurs to the monitored device.

Defining a Task's Effect and Details

Scheduled Maintenance allows you to create several types of tasks. When you create a task, all normal default values are enforced, messages are sent, Format Control and macros are executed, etc. All of the usual validations run as well. However, if an automatically generated Incident ticket, Change request, or Request Management quote does not match the validation rules, Scheduled Maintenance tries to ignore the validation rules and save the ticket anyway.

Scheduled Maintenance also allows you to open a collection of incident tickets, change requests, or request management quotes for every asset in inventory which meets certain predefined criteria, or which matches a specific user-defined query. Using one of these methods, a maintenance task can be created for any arbitrary subset of the inventory.

The Scheduled Maintenance Advanced Query option has a built in anti-spam feature. By default, the system only generates 50 tickets, regardless of how many records the advanced query returns. This threshold is user definable under the **Administrative Options** section of the Scheduled Maintenance Menu. See the *Application Administration Guide* for information on this feature.

To define a task's effect and details:

1. Click the **Effect** tab.
2. Specify the type of task you would like to create by selecting one of the following choices.
   - Create One Incident Ticket.
   - Create One Change Request.
   - Create One Request Management Quote.
   - Create one Incident Ticket for each Device of Class X at location Y.
   - Create one Change Request for each Device of Class X at location Y.
   - Create one Request Management Quote for each Device of Class X at location Y.
   - Create Nothing: Only Execute Expressions and Format Control.

   Note: You can limit the creation of multiple tasks to only those assets at a particular location by filling in the **Location** field. If you do not specify a location, then the task creates an Incident ticket, Change request, or Request Management quote for every asset of the appropriate type in your inventory, regardless of its location.
3. Enter a title. This is the title on the Incident ticket, Change request, or Request Management quote.
4. Enter description text. This is the description on the Incident ticket, Change request, or Request Management quote Scheduled Maintenance creates.
5. Click the **Details** tab.
6. Enter the task details.
   - See *Creating One or More Incident Tickets* on page 170, for details on how to create a single Incident ticket.
   - See *Creating One or More Change Requests* on page 174, for details on how to create a single Change request.
   - See *Creating One or More Request Management Quotes* on page 177, for details on how to create a single Request Management quote.
   - See *Creating One or More Incident Tickets* on page 170, for details on how to create one Incident ticket for each asset of a particular class in inventory at a specific location. For example, one ticket for every printer in Austin.

- See *Creating One or More Change Requests* on page 174, for details on how to create one Change request for each asset of a particular class in inventory at a specific location. For example, one request for every server in Dallas.
- See *Creating One or More Request Management Quotes* on page 177, for details on how to create one Request Management quote for each asset of a particular class in inventory at a specific location. For example, one request for every server in Houston.
- See *Using Expressions and Format Control Only* on page 180, for details on how to schedule Expressions and Format control without generating tickets of any kind.

When you are finished your task looks something like this:

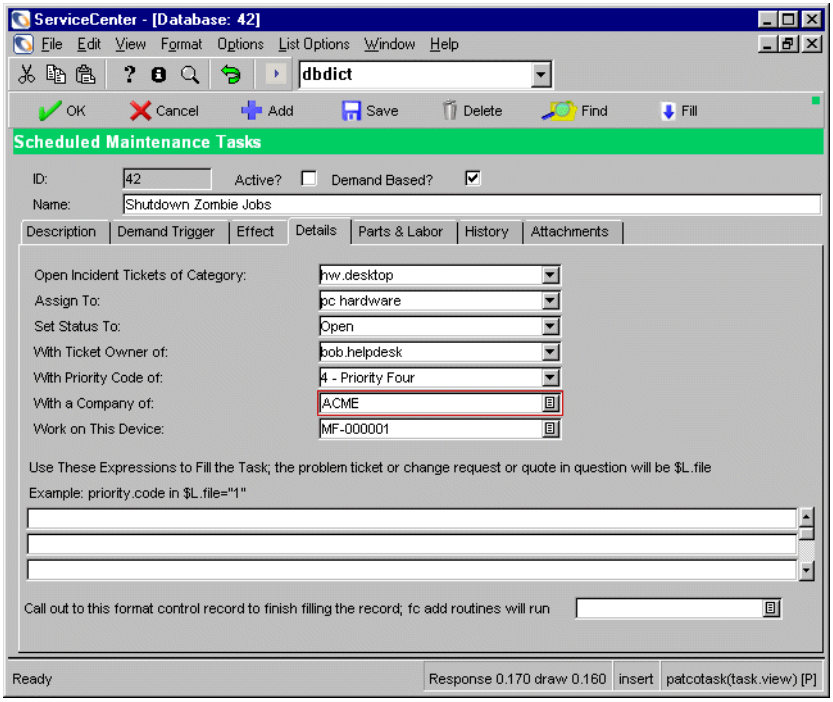


Figure 5-12: Defining a Task's Effect and Details

Creating One or More Incident Tickets

Incident tickets can specify:

Assignment Group (assignment)	Category (category)
Expression	Format Control
Incident description (action)	Incident title (brief.description)
Maintained Device (logical.name)	Owner (ticket.owner)
Priority Code (priority.code)	Status (problem.status)

To create one or more Incident tickets:

1 Click the **Effect** tab and select **Create One Incident Ticket** or **Create one Incident Ticket for each Device of Class X at location Y**.

If you selected **Create One Incident Ticket for each Device of Class X at location Y**, do steps a-c; otherwise, proceed to step 2.

- **a** Select the asset type, using the **Open for this Device Type** field.
- **b** Select the location, using the **At Location** field.
- **c** If desired, further specify the selection of assets to be maintained, by selecting the **Use Advanced Query** check box. The location and asset based selection boxes disappear and are replaced by the **All Devices Matching THIS Query** field.
- **d** Enter the query in the **All Devices Matching THIS Query** field.

Warning: Unless the Max Generation Count has been changed, no more than 50 tickets are generated, even if you want them to be. See the *Application Administration Guide* for information on this feature.

Scheduled Maintenance requires that you enter something in the **All Devices Matching THIS Query** field if you select the **Use Advanced Query** check box. It does not, however, require that what you type makes sense. Test all queries, using Asset Management, before you enter it here, to insure that it returns the correct records before you use it on a live Maintenance Task.

2 Click the **Details** tab to bring up a list of fields for the Incident ticket(s).

3 Complete the following fields:

Incident Details Tab Fields

Field	Definition
Open Incident Tickets of Category	Select a Category for the Incident ticket(s) using the drop-down list. (Required field.)
Assign to	Select an Assignment group for the ticket(s) using the drop-down list.
Set Status to	Select a Status for the ticket(s), using the appropriate drop-down list.
With Ticket Owner of	Select an Owner for the ticket(s), using the drop-down list.
With Priority Code of	Select a Priority Code for the ticket(s), using the drop-down list.
With a Company of	Select a Company for the ticket(s), using the drop-down list.

4 If you are creating one Incident ticket, then select the particular asset that you want worked on, using the appropriate drop-down list.

If you are creating a group of Incident tickets, then the **Work on This Device** field is not available. Instead, Scheduled Maintenance automatically sets this field as it works its way though your inventory, creating tickets for each relevant asset.

5 Enter Expressions for the ticket, if desired. For more information, see the *Application Administration Guide*.

6 Enter Format Control Record for the ticket, if desired. For more information, see the *Application Administration Guide*.

When you are finished your task looks something like this:

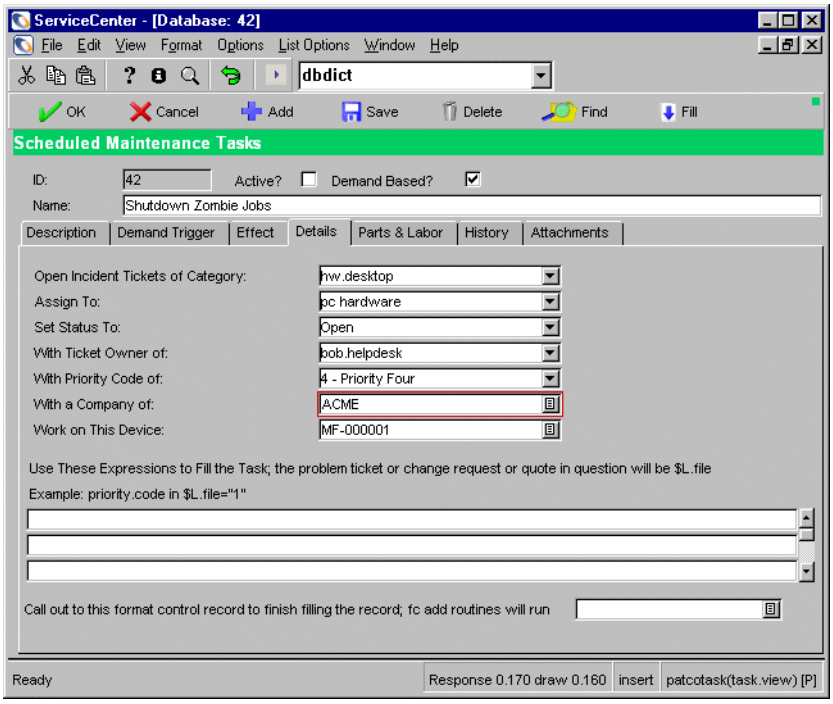


Figure 5-13: Creating an Incident Ticket—Main Information

7 Click the Parts & Labor tab.

Any parts and labor estimates you enter here will automatically be entered into the Incident ticket when it is generated. Additionally, the information entered here is used by the cost estimating tools as described below.

Your Parts & Labor tab should look something like this:

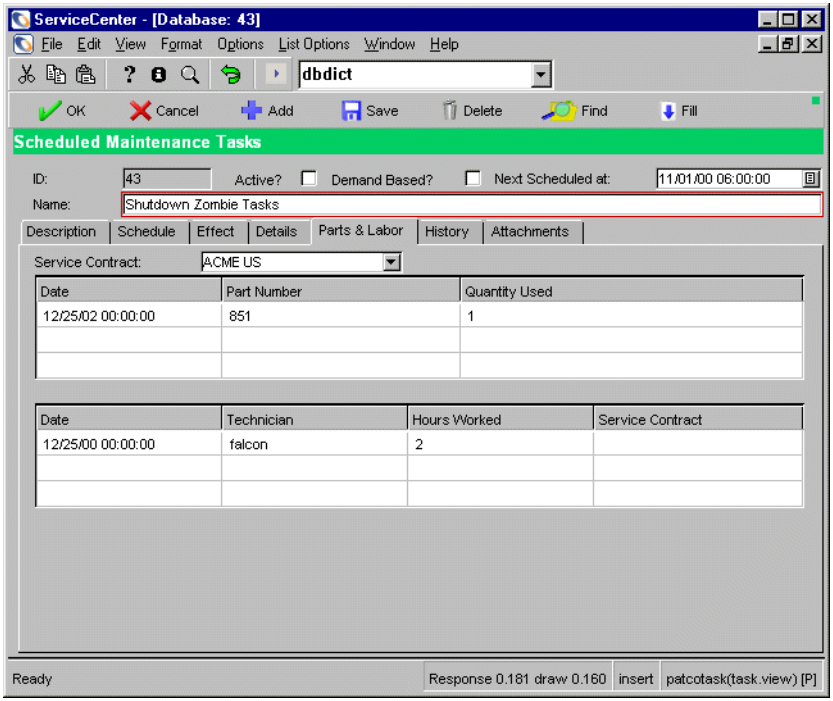


Figure 5-14: Create and Incident Task—Parts & Labor tab

Creating One or More Change Requests

Change requests can specify:

Expressions
Maintained Device (logical.name)
Request Category (category)
Request Description (description)
Request Work Manager (work.manager)
Format Control
Request Assignee (assigned.to)
Request Coordinator (coordinator)
Request Priority (priority)

To create one or more Change requests:

1 Click the **Effect** tab and select **Create One Change request** or **Create one Change request for each device of class x at location y**.

If you selected **Create one Change request for each device of class x at location y**, do steps a-c, otherwise, proceed to step 2.

a Select the asset type, using the **Open for this Device Type** field.

b Select the location, using the **At Location** field.

c If desired, further specify the selection of assets to be maintained, by selecting the **Use Advanced Query** check box. The location and asset based selection boxes disappear and are replaced by the **All Devices Matching THIS Query** field.

Enter the query in the **All Devices Matching THIS Query** field.

Warning: Unless the Max Generation Count has been changed, no more than 50 tickets are generated, even if you want them to be. See the *Application Administration Guide* for information on this feature.

Scheduled Maintenance requires that you enter something in the **All Devices Matching THIS Query** field if you mark the **Use Advanced Query** check box. It does not, however, require that what you type in makes sense. Test all queries, using Asset Management, before you enter it here, to insure that it returns the correct records before you use it on a live Maintenance Task.

2 Click the **Details** tab to bring up a list of fields for the Change request(s).

Change Details Tab Fields

Field	Definition
Open Change of Category	Select a Category for the Change request(s) using the appropriate drop box. (Required field.)
Coordinator	Select a Coordinator for the Request(s) using the drop box.
Work Manager	Select a Work Manager for the Request(s) using the drop box.
Set Priority to	Select a Priority for the Request(s) using the appropriate drop box.
Assign to	Select an Assignee for the Request(s) using the appropriate drop box.
With a Company of	Select a Company for the Request(s), using the drop-down list.
Work on this Device	Select an inventory item to work on, using the fill box. This appears only if you selected **Create One Change request**.

3 Enter Expressions for the Request(s), if desired. For more information, see the *Application Administration Guide*.

4 Enter Format Control Record for the Request(s), if desired. For more information, see the *Application Administration Guide*.

When you are finished your task looks something like this:

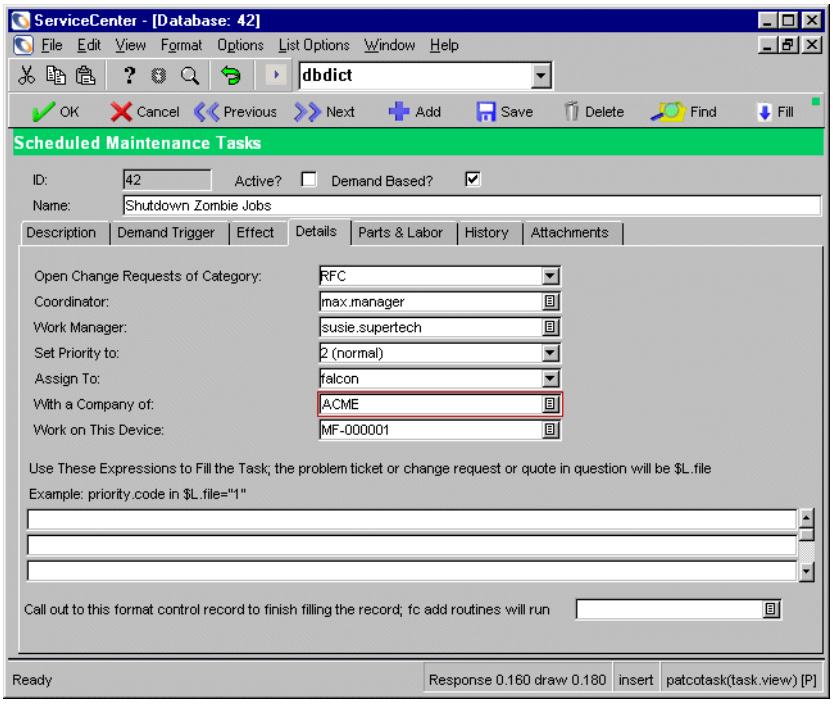


Figure 5-15: Creating a Change Request—Details tab

5 Click the Parts and Labor tab.

6 Enter Parts and Labor Information.

Any parts and labor estimates you enter will automatically be entered into the Change Request when it is generated. Additionally, the information entered here is used by the cost estimating tools as described below.

Your parts and labor tab should look something like this.

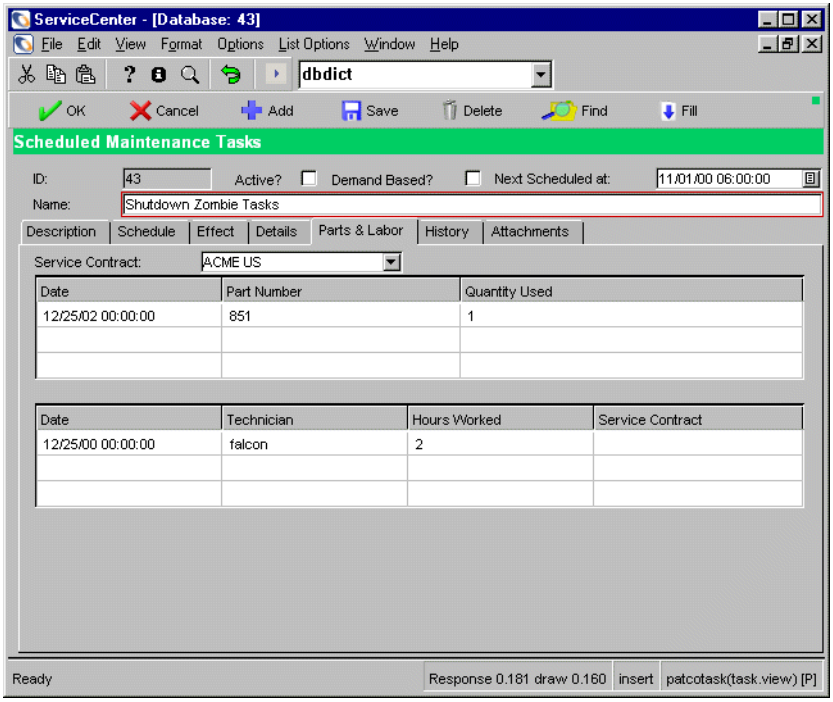


Figure 5-16: Create a Change Task—Parts & Labor tab

Creating One or More Request Management Quotes

Request Management quotes can specify:

Expressions
Quote Assignee (assigned.to)
Quote Coordinator (coordinator)
Quote Priority (priority)
Format Control
Quote Category (category)
Quote Description (description)
Quote Requestor (requestor.name)

To create one or more Request Management quotes:

1 Click the **Effect** tab and select **Create One Request Management quote** or **Create one Request Management quote for each device of class x at location y**.

If you selected **Create one Request Management quote for each device of class x at location y**, do steps a-c, otherwise, proceed to step 2.

a Select the asset type, using the **Open for this Device Type** fill box.

b Select the location, using the **At Location** fill box.

c If desired, further specify the selection of assets to be maintained, by marking the **Use Advanced Query** check box. The location and asset based selection boxes disappear and are replaced by the **All Devices Matching THIS Query** field.

Enter the query in the **All Devices Matching THIS Query** field.

Warning: Unless the Max Generation Count has been changed, no more than 50 tickets are generated, even if you want them to be. See the *Application Administration Guide* for information on this feature.

Scheduled Maintenance requires that you enter something in the **All Devices Matching THIS Query** field if you mark the **Use Advanced Query** check box. It does not, however, require that what you type in makes sense. Test all queries, using Asset Management, before you enter it here, to insure that it returns the correct records before you use it on a live Maintenance Task.

2 Click the **Details** tab to bring up a list of fields for the Request Management quote(s).

Request Details Tab Fields

Field	Definition
Open RM Quote of Category	Select a Category for the Request Management quote(s) using the drop box. (Required field.)
Requestor Name	Select the Requestor's Name for the Quote(s) using the drop box.
Assign to	Select an Assignee for the Quote(s) using the drop box.
Set Priority to	Select a Priority for the Quote(s) using the drop box.

Field	Definition
Coordinator	Select a Coordinator for the Quote(s) using the drop box.
With a Company of	Select a Company for the Quote(s), using the drop-down list.

3 Enter Expressions for the Quote(s), if desired. For more information, see the *Application Administration Guide*.

4 Enter Format Control Record for the Quote(s), if desired. For more information, see the *Application Administration Guide*.

Note: Parts and labor information is not available for request generating tasks.

When you are finished your task looks something like this:

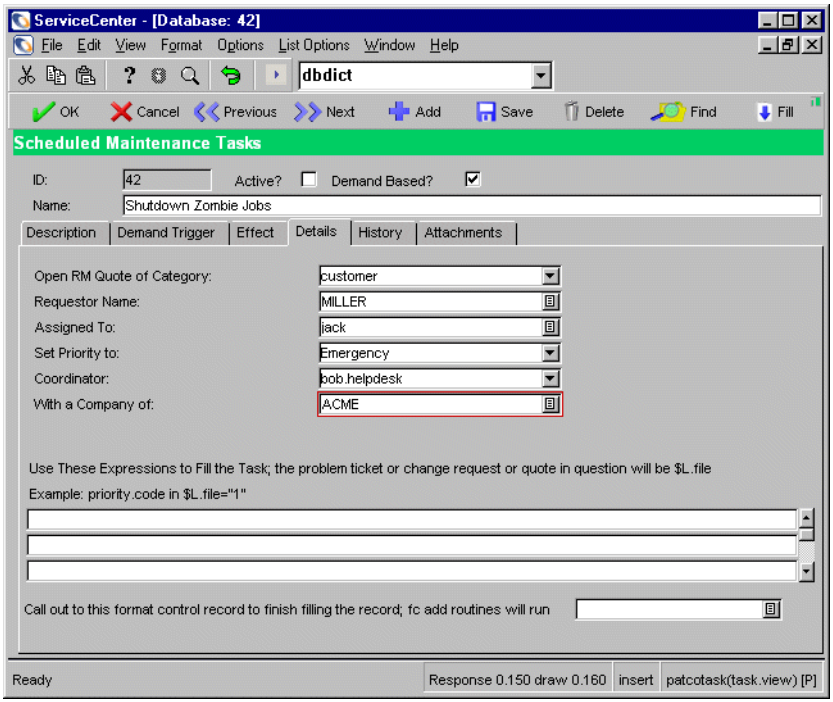


Figure 5-17: Creating a Request Management Quote

Using Expressions and Format Control Only

You can use Scheduled Maintenance to run Expressions and Format Control without generating tickets of any kind by:

1 Selecting **Create Nothing: Only execute expressions and Format Control**.

2 Entering the desired expressions and Format Control on the details tab.

To execute expressions and Format Control:

1 Click the **Effect** tab and select Create Nothing: Only execute expressions and Format Control.

2 Click the **Details** tab to bring up a list of fields for the expressions & Format Control.

3 Enter Expressions for the ticket, if desired. For more information, see the *Application Administration Guide*.

4 Enter Format Control Record for the ticket, if desired. For more information, see the *Application Administration Guide*.

When you are finished your task looks something like this:

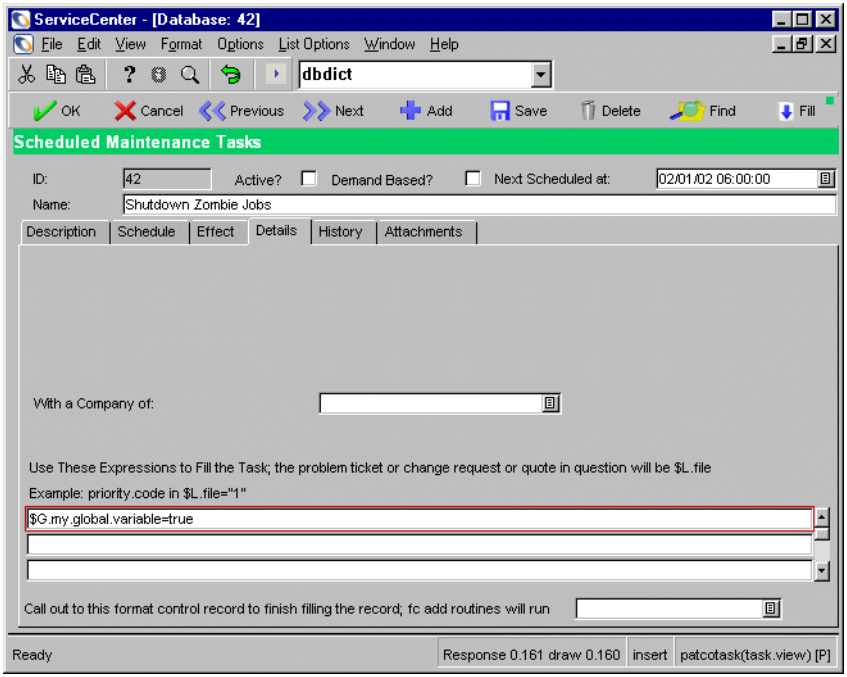


Figure 5-18: Using Format Control and Expressions Only

Adding Attachments

Attachments are not carried over into the tickets, requests or quotes created by the Scheduled Maintenance task. They are associated with the task and exist to add documentation or associated information to the task itself. Attachments placed on the attachments tab will not be copied into or otherwise associated with any incidents, changes, or requests created by the task in question.

To add an attachment:

1 Select the Attachments tab.

2 Copy and paste (or drag and drop) the attachment into the Attachments window.

When you are finished your task looks something like this:

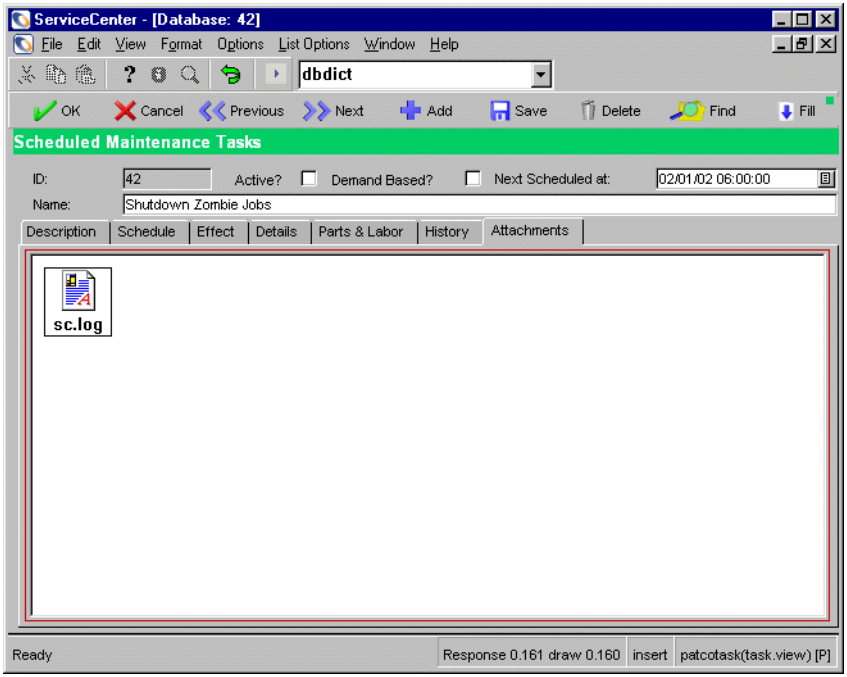


Figure 5-19: Adding an Attachment

Saving a Task

Once you have created a task, set its schedule and defined its effect, be sure to save it.

To save a task:

- Click **Add** on your tool tray.

  If this is a time-based task, then you will notice that the system has calculated the next time this task should execute and populated in the **Next Scheduled at** field.

  If this is a time based task, Scheduled Maintenance executes the task the next time it is scheduled to take effect. You may want Scheduled Maintenance to execute the task immediately in order to verify it works properly.

  If this is a demand based task, it runs as soon as an update is made to its monitored device such that it meets the trigger criteria.

Using the Cost Estimate Tool

Version 5.1 of Scheduled Maintenance introduces a new tool to help estimate the costs associated with your scheduled maintenance program. This tool allows you to select a subset of your maintenance tasks, and then calculate for you the estimated cost of executing those tasks within a specified time frame e.g. from 01/01/03 until 03/31/03.

Using the tool is a two-step process. First, you select a set of task records from within scheduled maintenance. Second, you invoke the tool and provide it the criteria it requires.

To use the Cost Estimate Tool:

1. Select Scheduled Maintenance from the main ServiceCenter menu.
2. Select Scheduled Maintenance again from within the Scheduled Maintenance menu.
3. Query the set of records you are interested in performing cost estimates on via the usual query tools.
4. Once your query completes, choose **List Options>Estimate Costs.**

5 When the cost estimate screen appears, enter a start and an end date for your estimation period. For example, start on 01/01/03 and end on 03/31/03 for the first calendar quarter of 2003.

6 Press Proceed.

7 The system automatically calculates the number of times that each task will execute within the time frame you specified as well as the cost for running each task once. The results of these calculations display in a spreadsheet format as below.

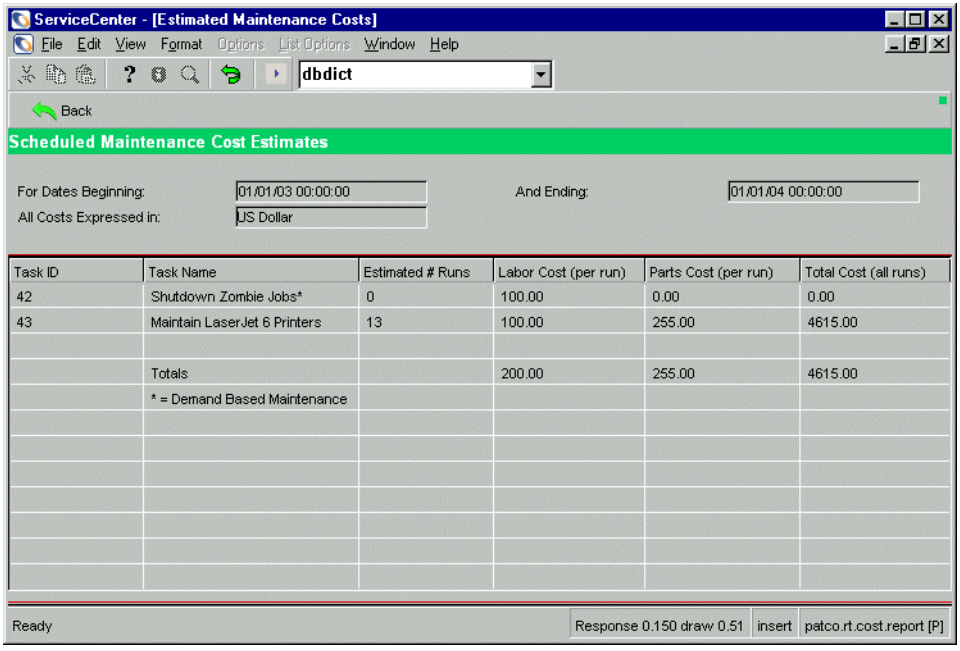


Figure 5-20: Scheduled Maintenance Cost Estimates

Notes/Limitations

- The tool estimates the number of times a task runs by using a mathematical function rather than by manually cranking through the task dozens or potentially hundreds of times. These functions are fast and generally highly accurate. However, there are cases where rounding errors or other factors result in the estimated number of times a task will run within a given time frame being either one higher or one lower than the actual number of runs.

- The tool makes no provision for tasks which expire halfway through the listed time frame and instead assumes that all listed tasks continue throughout the time series.
- If the tool must make foreign currency conversions, it executes them via either today's exchange rate or, if that is unavailable, the most recent exchange rate it has on file.

Note: Actual exchange rates fluctuate significantly, and may result in tasks later in the time frame performing under a dramatically different exchange rate from that used in the estimation process.

- The cost estimates are only as good as the parts and labor information provided. Inaccurate or incomplete part and labor descriptions on maintenance tasks result in inaccurate or incomplete cost estimates.
- The tool cannot and does not estimate the number of times that demand based maintenance tasks runs within the budget time frame. Demand based tasks have their names marked with an asterisk (*) and have their estimated run count set to zero. The product will, however, calculate their cost per run information for you to allow you to enter your own run count estimates based on your judgement.

Executing a Task

When the time comes for a maintenance task to be executed, the Scheduled Maintenance system creates an Incident ticket, Change request, or Request Management quote exactly as though a technician at your service desk had manually typed it in.

It then uses your existing ServiceCenter code, with all of your validations, and tailoring to create the appropriate Incident ticket, Change request, or Request Management quote. Scheduled Maintenance then tracks the execution of these Incident ticket, Change request, or Request Management quote in order to store a complete service history for each task.

As soon as a task is created and stored, Scheduled Maintenance immediately calculates when that task should next be executed. At the appropriate time, an Incident ticket, Change request, or Request Management quote is automatically created for each of those tasks. The system then tracks the execution of each Incident ticket, Change request, or Request Management quote it generates, thus creating a historical maintenance record.

Verifying a Task is Working

Once a task has been saved, you check at the task or tasks that Scheduled Maintenance has created for you by:

- *Forcing a Task to Execute Immediately* on page 185
- *Checking the Execution History of a Task* on page 186
- *Checking the Execution Details of a Task* on page 187

Forcing a Task to Execute Immediately

Forcing a task to execute immediately allows you to see if a task executes.

To force a time based task to execute immediately:

1 Bring up the task you want to test inside of Scheduled Maintenance.

Locate Next Scheduled At: field. This field contains a calculated time when the system thinks this task should execute next.

2 Set the time to some point in the past like 01/01/1990.

3 Make certain that the **Active** check box is selected. (Only active tasks execute.)

4 Press **F4** to save your Changes, and **F2** to exit.

By default, the system only checks to see if it has any tasks to execute every 60 seconds. You may have to wait anywhere from no time at all to one minute before your task executes.

When enough time has passed, go back into Database Manager and look at your task. If it has executed, the **Next Scheduled At** field changes. Once a task executes, Scheduled Maintenance automatically reschedules it for the next appropriate time. This means that the task was executed, however, that is no guarantee that it did what you expected it to.

To force a demand based task to execute immediately:

1 Locate the monitored device within ICM.

2 Update the device such that it meets the trigger criteria for the maintenance task.

The maintenance task runs as soon as you update the record.

Checking the Execution History of a Task

To find out whether a task was executed or not, check the execution history log. An entry is written here every time a task executes. For a newly created task there should only be a few entries. A task that has run every ten minutes for a year, however, would have many entries in its execution log.

There are two ways to access the execution log. You can:

- Search for tasks by specified criteria.
- View the history of a particular task.

To search by criteria:

1. Open the Scheduled Maintenance Main menu.
2. Click **Execution History**. A search window appears.
3. Enter the search criteria. You can search by:
   - Task ID
   - Event Date
   - Result
   - Creation Count
4. Press **F6** or click **Search** to find all items with that criteria.

To check the history of a particular task or one that is already open:

1. Open the task inside of Scheduled Maintenance.
2. Click the **History** tab.
3. Click **Execution History**.

Tasks have four possible execution results.

- Success: Executed Successfully

  Your task executed successfully, and an Incident ticket, Change request, or Request Management quote was created. No problems were encountered. This is the result you want to see.
- Reject: Incident/Change was rejected by Format Control

The Format Control rejected the record. Remember that Scheduled Maintenance fills in a record just like a user. So, if a certain field is required when a user creates an Incident ticket, Change request, or Request Management quote, it is also required when Scheduled Maintenance creates the same Incident ticket, Change request, or Request Management quote.

If the required field isn't one of those that Scheduled Maintenance fills in by default, you'll probably have to use expressions to populate it. For more information, see the *Application Administration Guide*.

- Error: Encountered an Error while executing task expressions

  This means that you completed the **Expressions** field on the Details tab of the task, and that one or more of the expressions entered didn't execute properly. Identify and fix the problem.

- Error: Encountered an unknown error

  This usually means that an unhandled error occurred inside the ServiceCenter code as opposed to the Scheduled Maintenance Code. This is a very rare event.

Checking the Execution Details of a Task

You can check the execution details for a task, by taking a look at the Incident tickets, Change requests, or Request Management quotes that were generated by the task.

To search for items by criteria:

1. Open the Scheduled Maintenance Main menu.
2. Click **Execution Details**. A search window appears.
3. Click **Fill** by the **Number** field, to select from the complete list of Incidents, Quotes or Requests.

   Or enter the search criteria and press **F6** or click **Search** to find a particular item.

You can search by:

- **ID**—a unique identifier that Scheduled Maintenance gives to every task it creates
- **Class**—one of three values: Incident, Change, or request.
- **Number**—the Incident number, Change number, or request number of the created task.
- **Opened at**—the time the task was opened.
- **Closed at**—the time the task was opened.
- **Task ID**—the ServiceCenter ID of an Incident ticket, Change request or Request Management quote.
- **Logical Name**—the ServiceCenter asset against which scheduled maintenance was run e.g. all maintenance history for the email server.

4 Select an item from the list to see the details of the Incident, the Change, or the request that was created.

To see what was generated particular for a task:

1 Access the task in Scheduled Maintenance.

2 Click the **History** tab.

3 Click **Execution Details**.

You see a list of all Incident tickets, Change requests, or Request Management quotes created as a result of this task, when they were opened, and when they were closed.

4 To view an Incident ticket, Change request, or Request Management quote:

a Select the item from the list.

b Place the cursor in the Number field.

c Click **Find** in the toolbar, or press F8.

Sample Time Scheduled Tasks

For these examples, we give a description of the task and then show screenshots that demonstrate how to input that task.

Purging the IDOC Table

The company has an item in inventory called SAP003. It is one of the SAP instances, and a lot of external transactions are done on it. As a result, the IDOC table gets extremely clogged and needs to be purged occasionally to reclaim storage space. The SAP basis team has been doing this on an as needed basis, but it almost ran out of space last month. The company wants to formalize the process and purge the IDOC table monthly from now on.

The basis team is accustomed to getting requests like this via Change Management, so we'll create Change requests rather than Incident tickets or Request Management quotes. It is an application category Change, we want MAX.MANAGER to coordinate the effort, and SUSIE.SUPERTECH to do the actual purging.

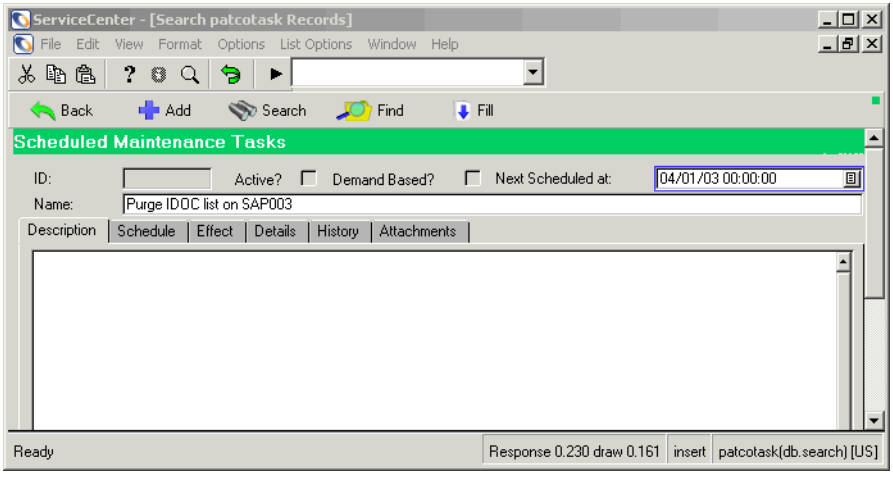


Figure 5-21: Purging the IDOC Table: Description tab

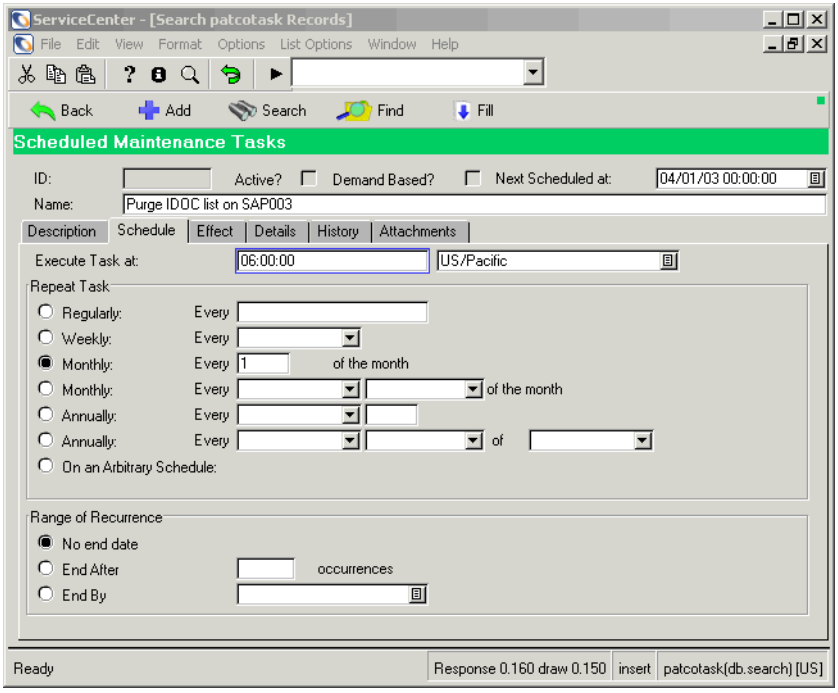


Figure 5-22: Purging the IDOC Table: Scheduling tab

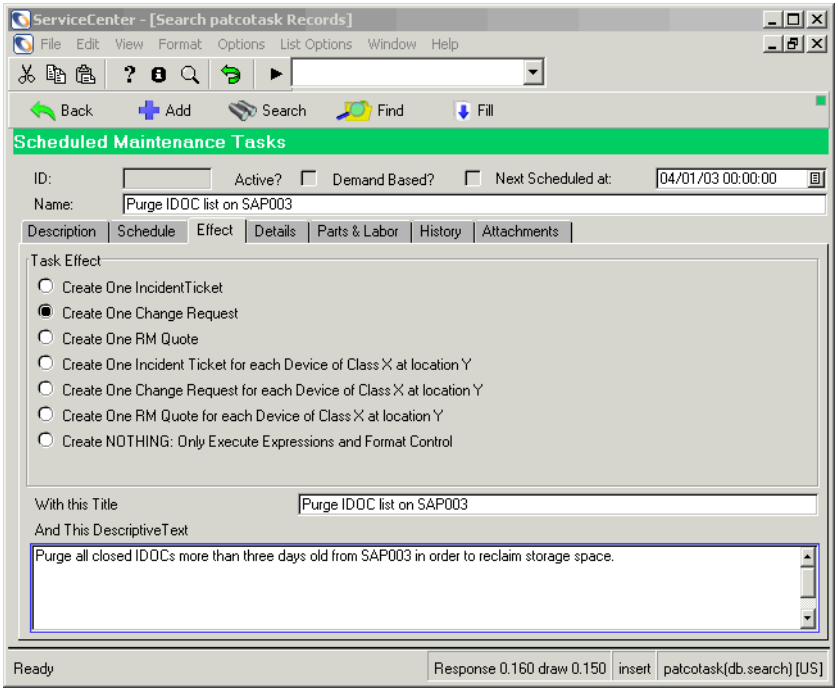


Figure 5-23: Purging the IDOC Table: Effect tab

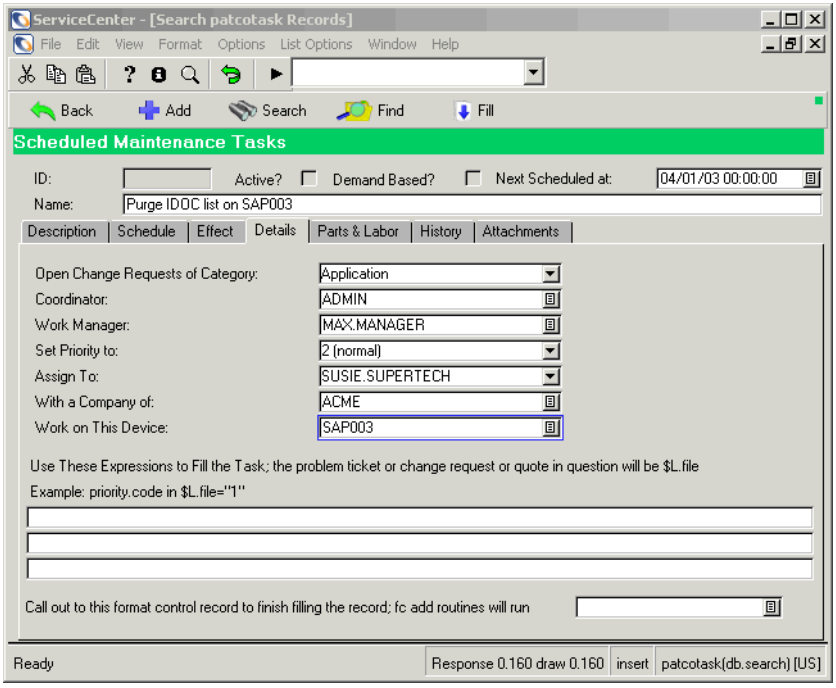


Figure 5-24: Purging the IDOC Table: Details tab

Maintaining the Printers

The company has just made an investment in upgrading all of its departmental printers to the new company standard, 1200 dpi HP LaserJet 6. The new printers are working well, but according to the manufacturer, the printers should receive full cleaning every month to keep them in top condition. There are about 300 printers, in twelve sites. The technicians are never going to be able to keep track of which ones have been cleaned and which ones have not.

Scheduled Maintenance can automate this task for them. The hardware technicians are accustomed to getting requests like this via Incident Management, so we'll create Incident tickets rather than Change requests or Request Management quotes. For organizational purposes, we schedule printer maintenance on one site at a time. For this example, we set up maintenance for all the printers at our Houston office.

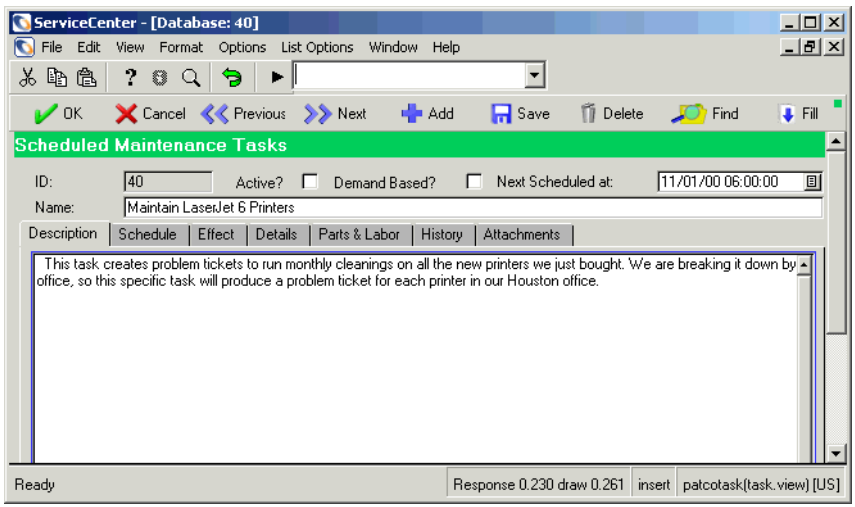


Figure 5-25: Maintaining the Printers: Description tab

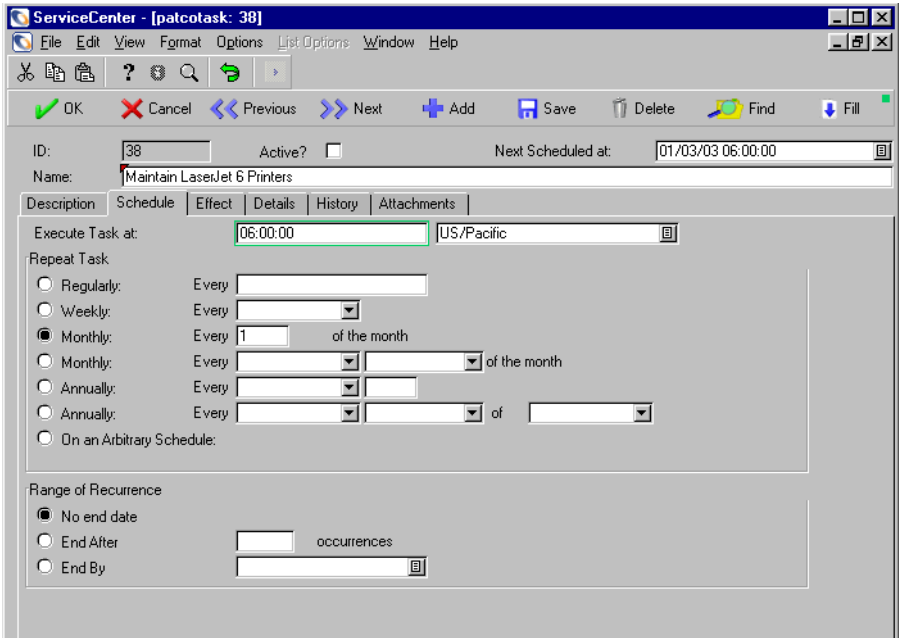


Figure 5-26: Maintaining the Printers: Schedule tab

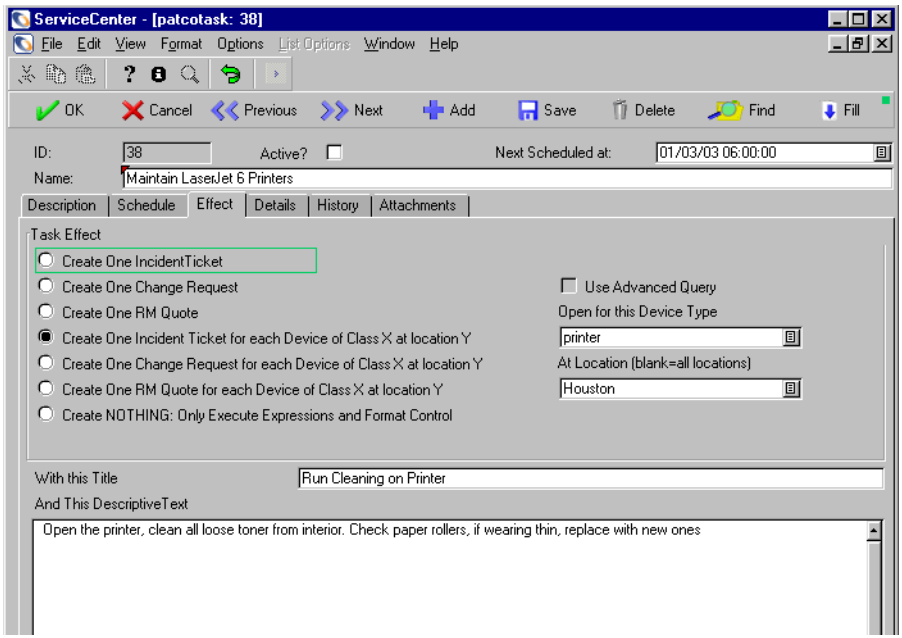


Figure 5-27: Maintaining the Printers: Effect tab

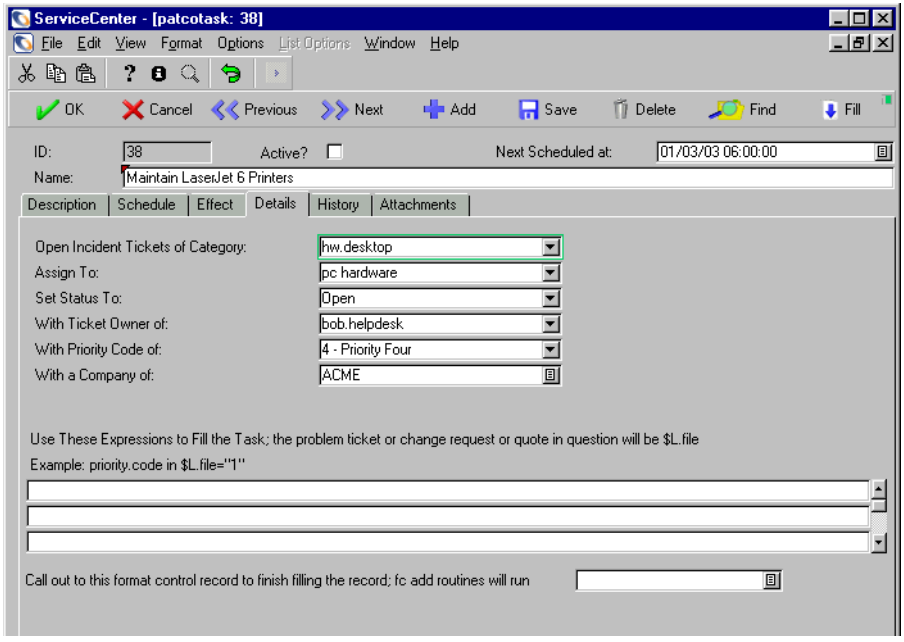


Figure 5-28: Maintaining the Printers: Details tab

6 CHAPTER Incident Management

Incident Management allows you, as a help desk operator, to report various types of problems, such as software, equipment, facilities, or network problems. As a manager or technician, you can track the progress of the resolution of these problems. Incident Management automates the process of reporting and tracking an incident or groups of incidents associated with a business environment.

This chapter has been divided into the following sections:

How Incident Management Works on page 199—how you can use Incident Management to report a problem.

Accessing Incident Management on page 202—how to access the application, with an introduction to the Incident Management menu.

Help Desk Basics on page 203—describes the Incident List inbox.

Search Incident Management on page 206—**how** to perform a query for an incident ticket.

Opening Incident Tickets on page 215—how to open, update, and close an incident ticket.

Status, Alerts, and Escalation on page 252—how ServiceCenter escalates incident tickets through alerts.

Cause Codes and Probable Cause on page 254—how to enter a Cause Code into an incident ticket and how Cause Codes relate to the ServiceCenter Probable Cause feature.

A help desk operator can open an *incident ticket* for the incident reported. An incident ticket also can be opened from a call report.

Incident tickets can be:

- Created and opened by help desk operators or automatically opened by the ServiceCenter **Event Services** module.
- Sent automatically to the proper system personnel.
- Tracked and resolved by the personnel and system managers.
- Sent by e-mail or fax to the user with a resolution to the reported incident.

See instructions for printing from Incident Management in *Printing* on page 539

How Incident Management Works

Service Management allows you, as a help desk operator, to keep track of calls by creating a *call report* (see *Creating a Call Report* on page 128 for more details). If a reported incident requires further action, use Incident Management to open an *incident ticket* to track the problem.

Incident Management forms are provided for you to enter the appropriate information and incident categories. The **Fill** function within the form helps you to complete portions of the ticket. From there, you can review the incident ticket and decide what action to take.

- If the incident needs to be resolved by another technician or department, the incident ticket can be forwarded. Once the problem is resolved, the incident ticket can be returned to you with the resolution for confirmation.
- If the ticket is reporting an incident that is a recurring problem, you can choose to open a Root Cause ticket. The Root Cause ticket can then be further investigated (see *Root Cause Analysis* on page 377 for more details about Root Cause Analysis and how to open a Root Cause ticket).
- You can check the incident ticket at any time to see the current status.

Figure 6-1 on page 201 shows the workflow of the incident report and incident ticket process.

For example: A user cannot print to the network printer, so the user calls you at the help desk. You, as the help desk operator, open a call report to make a record of the call. In talking with the user, you discover that you cannot resolve the problem during the phone call, so you open an incident ticket. You send the ticket to a technician, who discovers that the printer's network connection is broken. The technician updates the incident ticket and forwards the ticket to the network administrator with a message that the printer network connection is broken. The network administrator has the connection repaired, updates the ticket, and sends the ticket back to you for closing.

Incident Management allows you to automatically view related incident ticket records, which can be selected and opened directly from the list view.

Incident tickets are assigned *categories* that determine the type of information stored. For example, an incident ticket describing an e-mail incident stores different information than an incident ticket for a printer.

The appropriate personnel can escalate and reassign incident tickets. The system can also automatically issue alerts and escalate a problem that is not getting resolved. For information about the capability required to escalate and reassign incident tickets, see the *Application Administration Guide*.

Note: The workflow Figure 6-1 on page 201 can be changed by modifying ServiceCenter scripts to meet your business process flow.

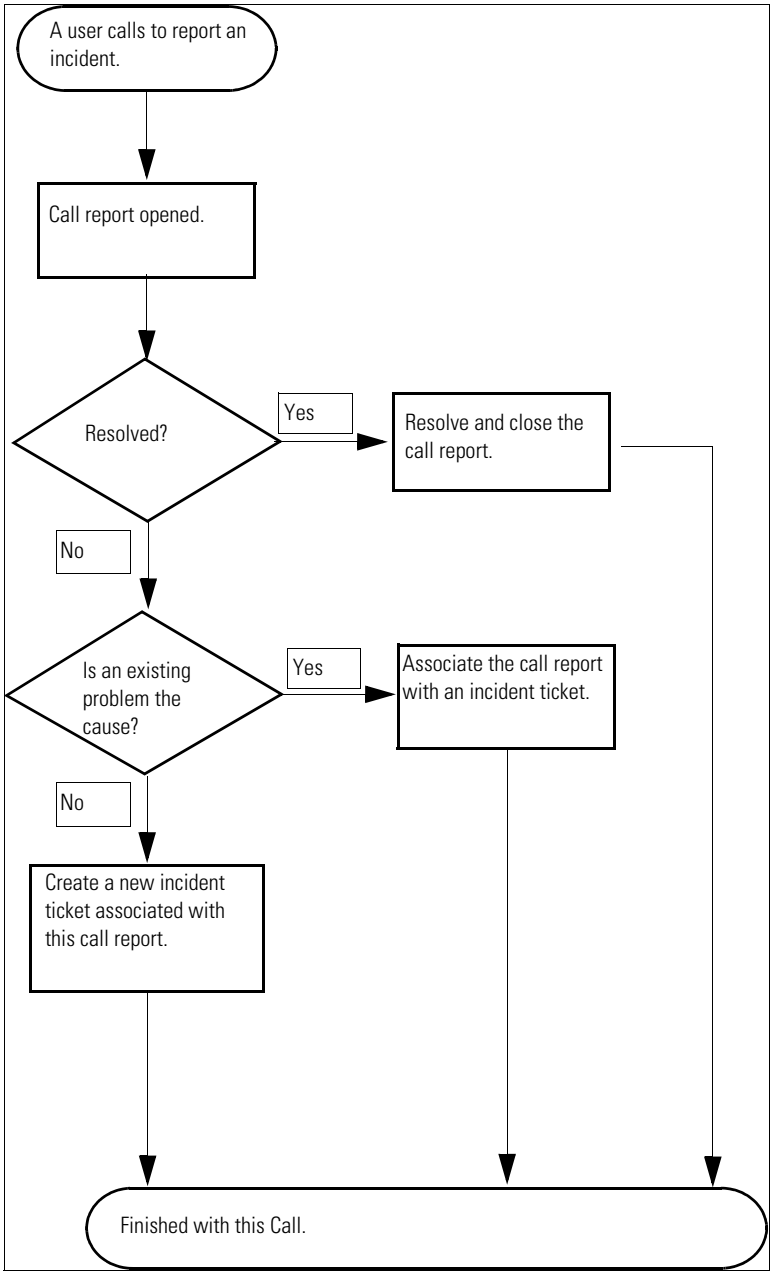


Figure 6-1: Incident Management/Call Report Workflow

Accessing Incident Management

You can access Incident Management from the ServiceCenter Home menu.

- If you are logged on as *FALCON* or *MAX.MANAGER*, click **Incident Management**.
- If you are logged on as *SUSIE.SUPERTECH*, click **Incident Queue**.
- If you are logged on as *BOB.HELPDESK*, click **Incident, Call and Change Queues**.

Figure 6-2 shows the home menu for *BOB.HELPDESK*.

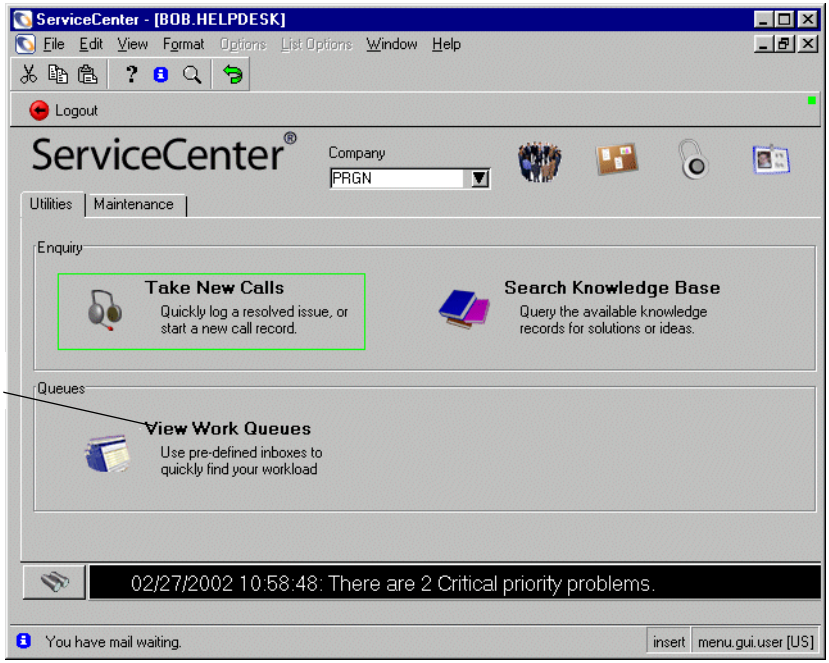


Figure 6-2: Help Desk Incident Management tab

Help Desk Basics

Most user interaction in Incident Management takes place in the help desk functions. From the help desk, you can open, update, and close incident tickets and call reports.

Accessing the Incident List Inbox

To access the Incident List inbox:

1 Click **Incident Management** (or **Incident Queue**). This button may be in an Incident Management tab or on the Home menu, depending on how you are logged on.

An Incident Management inbox displays (Figure 6-3 on page 203).

2 Double-click on one of the records listed to access that incident ticket.

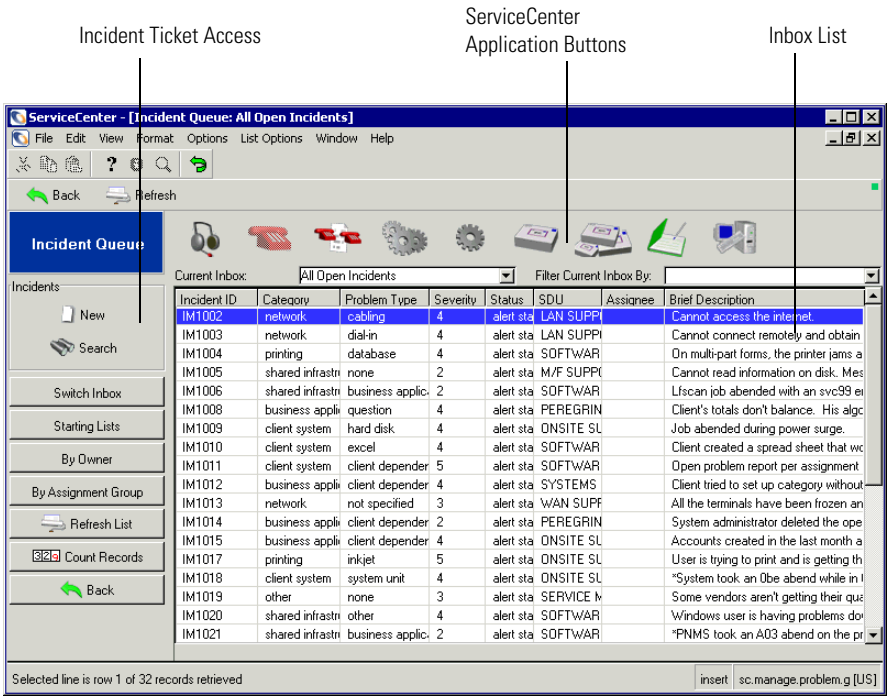


Figure 6-3: Incident Management Inbox

Incident List Inbox Buttons

Each inbox contains a series of buttons providing quick access to other ServiceCenter applications and inboxes. The buttons are the same in each inbox, except for two that are specific to the application.

Incidents by Owner—displays a list of records for the operator.

By Assignment Group—displays a list of records for another assignment group.

Options Menu—Incident List

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

Option	Description
Asset Management	Accesses Asset Management.
New Incident	Accesses a new incident ticket form.
Search Incidents	Accesses the Incident Management search function.
Quote List	Accesses the current user's Quote List (Request Management inbox).
Order List	Accesses the current user's Order List (Request Management inbox).
Line Item List	Accesses the current user's Line Item List (Request Management inbox).
Call List	Accesses the current user's Call List (Service Management inbox).
Change List	Accesses the current user's Change List (Change Management inbox).
Task List	Accesses the current user's Task List (Change Management inbox).
Administer	Accesses the Incident Management Security Administration Utility.
Refresh	Updates the current list.
Switch Inbox	Displays a dialog window to select another inbox. Functions the same as the **Switch Inbox** button.
Starting Lists	Displays the initial Call List.

Option	Description
Count	Tallies the number of records in the Call List.
Assignment Group's Incidents	Searches for incident tickets assigned to a specified assignment group. A message box prompts you to select an assignment group.
Owner's Incidents	Searches for incident tickets assigned to a specified ServiceCenter user (owner). A message box prompts you to select an owner.
Sort by	Sorts the Incident List by the **ID**, **Open Time**, **Category**, or **Alert Level**. These options function the same as clicking on the inbox header buttons.

List Options Menu—Incident List

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

List Option	Description
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.
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.

Search Incident Management

Incident Management allows you to query for incident ticket records. The records are displayed in an **Incident List**. You can also save these queries as *inboxes*. Inboxes are discussed in *Inboxes* on page 77.

The search form fields allow you to narrow the search parameters. The procedures for searching Incident Management are discussed in *Search Procedures* on page 214.

Incident Ticket Search Fields

The Incident Ticket search information displays in three tabs: **Basic Search**, **Advanced Search**, and **IR Query**.

Incident Ticket—Basic Incident Search tab

You can leave any or all fields in this tab blank (see Figure 6-4 on page 207). For fastest searching, use the fields identified as key (indexed) fields at your site. If these are not clearly identified on the form, ask your ServiceCenter administrator for a list of key fields.

Most fields have Arrow or **Browse** buttons, which allow you to select from a drop-down list or QBE list.

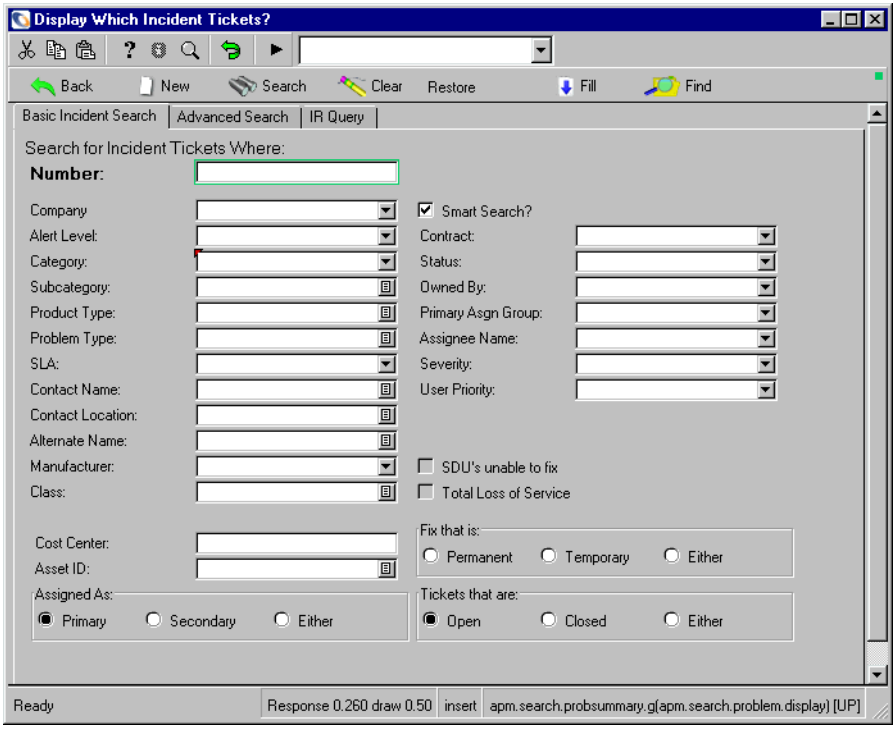


Figure 6-4: Basic Search tab

Fields

Field	Description
Number	Type the incident ticket number, if you know it, in the form of IM*xxxx*, where *xxxx* is the number. For best results, enter the full incident ticket number. If you have a partial number, you can enter that partial number to access a QBE list of possible records, but your list does not necessarily include all possible records. To begin a search with an incident ticket number, first deselect the Smart Search check box. Do not use wildcards (for example, *) in your search.
Smart Search?	Allows searches for incident tickets by number only (prefixes or suffixes, such as *IM*, are omitted). Smart Searches return the ticket requested regardless of its state (such as, open or closed). If any settings on the search form other than the default are entered, a normal query is performed and the Smart Search feature is ignored. **Note:** If a search is being performed to include any value other than the incident ticket number, Smart Search is disabled.
Company	Name of the company from the *company* file.
Division	Name of the division for which the contact works.
Alert Level	Enter the alert level of the incident ticket or tickets you are searching. See *Status, Alerts, and Escalation* on page 252, for details on alerts.
Contact	ServiceCenter contact who called.
Status	Enter the status of the incident tickets for you are searching: *Open, Pending other, Work in progress, Reject, Resolved, Pending vendor, Closed, Pending customer, Referred, Replaced Problem,* and *Suspended.*
Owned By	Enter the Incident Management operator responsible for the ticket or tickets.
Reported By	Enter the user who reported the incident.
Category	Enter the Incident Management category classifying the ticket or tickets.
Sub Category	Enter an Incident Management sub-category for a more detailed breakdown of the incident category. The contents of the subcategory drop-down list are determined by the Category chosen.

Field	Description
Owned By	Enter the assignment group responsible for the ticket or tickets.
Primary Asgn Group	Select the level of the assignment group selected in the **Assigned To** field.
Assignee Name	Person responsible for resolving the problem.
Severity	Indicates how pressing an incident is for the caller. The severity can be *Critical, Major, Medium, Low, or Very Low*. The default is *Low*.
User Priority	Enter the priority of the ticket or tickets: *Critical, Major, Medium, Low,* or *Very Low*.
Product Type	Asset product type.
Problem Type	Type of problem being reported.
SLA	Select if you want to search for tickets covered by a particular service level agreement.
Contact Name	The **Contact Name** related to the company from which the call was received. Click **Browse** to select a **Contact Name** from the QBE list of contact names. See *Contacts File* Appendix A for information on contacts.
Contact Location	The contact's location from where the call originated.
Alternate Name	Name of caller other than the contact name.
Manufacturer	The asset manufacturer.
Class	Related to the **Manufacturer** field and allows the incident or problem to be classified with the type of asset being reported. For example: **Manufacturer**=Dell, **Class**=Laptop.
SDUs unable to fix	Service delivery units unable to fix the reported problem.
Total Loss of Service	Asset reported has total loss of service.
Cost Center	The cost center for the contract.
Asset ID	Enter or select the name of the asset listed in the incident report.
Assigned As:	Select the assigned status of the tickets you want to search: ■ Primary ■ Secondary ■ Either

Field	Description
Fix that is:	Select the current type of fix or solution for the tickets you want to search: ■ Open ■ Closed ■ Either
Tickets that are:	Select the status of the tickets you want to search: ■ Open ■ Closed ■ Either
Search Which Site?	Used only in distributed ticketing to indicate the location to search for records. Distributed ticketing is discussed in the *Application Administration Guide*. This field is available only if distributed ticketing is activated for ServiceCenter.

Advanced Search tab

Displays a search window that allows you to specify date ranges and additional criteria not normally used for a Basic Search. Fields in this tab (Figure 6-5 on page 211) can be left blank.

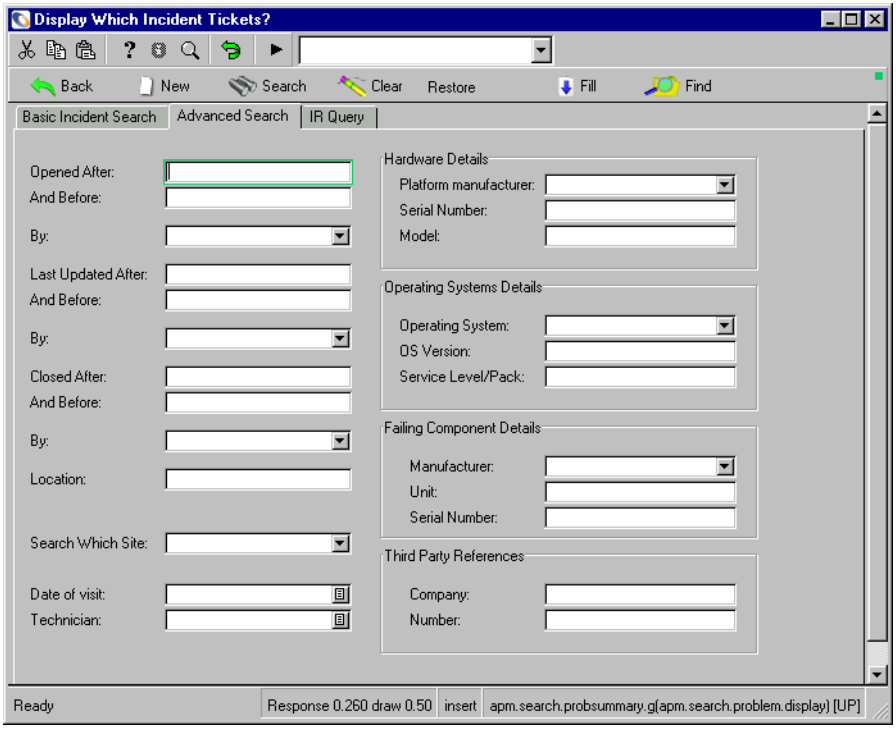


Figure 6-5: Advanced Search tab

Note: Choose **Option>Expert Search** to write your own search query and sort the results by keyed fields.

Fields

Field	Description
Opened, Last Updated, and Closed	Enter **After** as well as **And Before** to narrow down dates and times (optional) the report was opened, updated, or closed. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is *00:00:00*. **Note:** The date and time format can be set by your system administrator in the System Wide Company Record or in individual operator records. Therefore, the date and time format you use may vary from the default shown above.
By	Enter the name of the Incident Management operator who opened or updated the incident record. You can type the name, or you can use the Arrow button or Down arrow key to access a drop-down list.
Location	Enter the location of the asset for which the incident was reported.
Search Which Site	Enter the site where the asset is located. Used only in distributed ticketing to indicate the location to search for records. Distributed ticketing is discussed in the *Application Administration Guide*. This field is available only if distributed ticketing is activated for ServiceCenter.
Date of Visit	Enter the date of the site visit.
Technician	Enter the technician involved with helping to resolve the ticket.
Hardware Details	Enter the details of the asset being reported.
Platform Manufacturer	Enter the platform manufacturer.
Serial Number	Enter the serial number of the asset for which the incident was reported.
Model	Enter the model of the asset listed in the ticket or tickets.
Operating Systems Details	Enter the operating system details.
Operating System	Enter the operating system.
OS Version	Enter the OS version.
Service Level/Pack	Enter the application service level/pack number.
Failing Component Details	Enter the details of the failing component of the asset being reported.

Field	Description
Manufacturer	Enter the asset manufacturer.
Unit	Enter the unit number of the asset.
Serial Number	Enter the serial number of the failing component.
Third Party References	Enter the details of any third party references.
Company	Enter the reference's company name.
Number	Enter the reference's company number.

IR Query tab

The IR Query tab displays in Figure 6-6 on page 213.

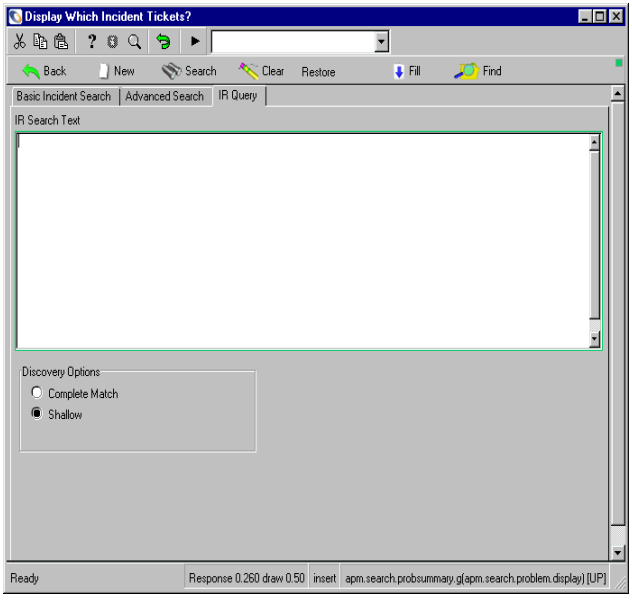


Figure 6-6: IR Query tab

Fields

Field	Description
IR Search Text	A blank text box where you can enter a plain text query.
Discovery Option	Options where you can designate which kind of search you want:
Complete Match	The system searches for an absolute match to the text you have typed.
Shallow	The system searches using narrower parameters and returns fewer records than with a deep search.

Search Procedures

To search for incident ticket records:

1 Click **Incident Management** (or **Queue**).

The incident ticket inbox displays.

2 Click **Search**.

A **Search** form (Figure 6-4 on page 207) displays.

3 Enter any **Basic Search** information you know. The more information you enter, the narrower the search parameters.

Use one of the following options to fill in the fields:

- Type known information.
- Click **Fill**, or press **F9** to access a QBE list.
- Click the Arrow button to access a drop-down list, or press the Down arrow to toggle through the selections.

4 Click the Advanced Search tab to further narrow the search parameters. Advanced search fields allow you to narrow the time frame when a record was opened or updated. You can also enter the name of the operator who opened or updated the report. These fields are independent of each other and can remain blank.

To fill in these fields: type known information, or click the Arrow button, or press the Down arrow to access a drop-down list.

5 To further narrow the search parameters, click the IR Query tab.

6 Enter a plain text description in the **IR Search Text** field.

7 Click **Search**, or press **F6**.

The matching record displays.

If multiple records match the search parameters, a QBE Record list displays with the first record in the list displayed in the incident ticket form. Click on a record in the list to display it in the incident ticket form.

8 If a message is returned stating: *No Records Found*, broaden the search by eliminating some of the search parameters that you entered.

Note: You can sort a QBE Record list by clicking the column header of the area by which you want to sort the list. For example, to sort the list by status, click the **Status** header button.

Opening Incident Tickets

Opening an incident ticket for a reported incident creates a record that can be used to track the progress of the problem resolution. You, as a help desk operator, can fill in the incident ticket fields and update the ticket information. Message areas are provided to include descriptions of the incident, the actions taken, and, finally, the resolution of the incident.

Incident Management Records (Paging Feature)

As incident tickets are updated and closed, a new record is created for that ticket. These new records, also called pages, are created by the Incident Management **paging** feature. Enabling and disabling paging is discussed in the *System Administrator's Guide*.

When an incident ticket is accessed, the most recent page (record) displays.

Incident Ticket Fields

Not all the fields in the quick-open incident ticket form (Figure 6-7 on page 216) are required to open an incident ticket. Some fields are automatically filled in by ServiceCenter.

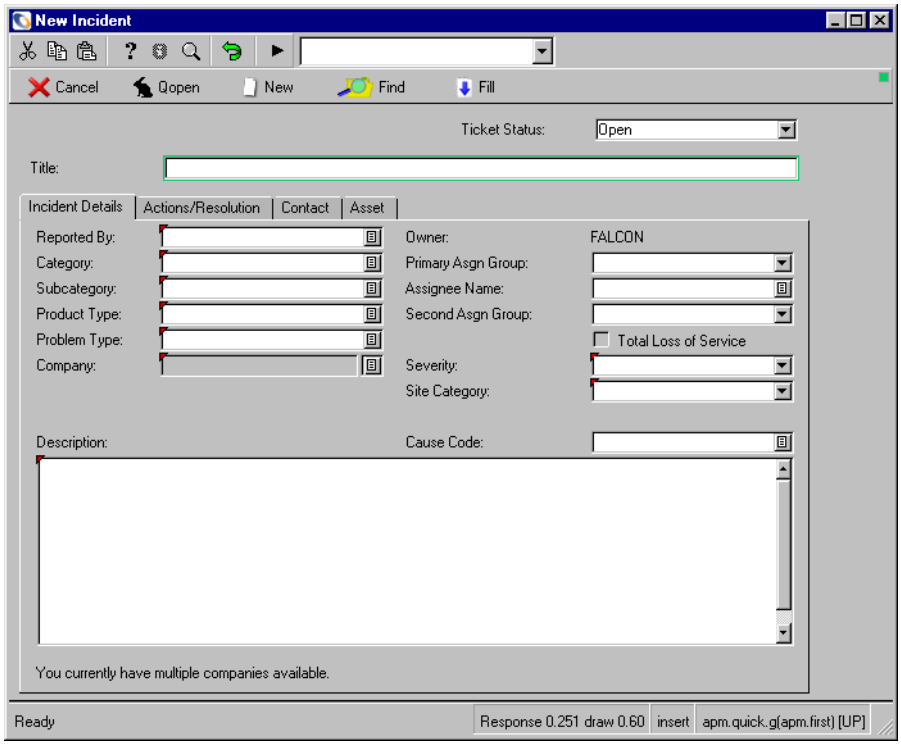


Figure 6-7: Quick-Open Incident Ticket (*apm.quick*) form

Fields

Field	Description
Category	Select an Incident Management category to begin a quick open and to classify the Incident ticket. This field is required. If you have a default category already specified, this category is entered automatically into the field.
Primary Asgn Group	Select an assignment group that is responsible for resolving the Incident ticket.

Once you make these selections, continue filling in other details in the fields described below.

Fields—Incident Ticket Top Section

Field	Description
Ticket Status	Current status of the ticket: ■ **Open**—ticket currently active. ■ **Pending other**—action awaiting action on another incident ticket. ■ **Work in progress**—work currently underway to resolve this incident. ■ **Reject**—ticket rejected. No resolution at this time. ■ **Resolved**—ticket resolved. ■ **Pending vendor**—update awaiting action from a vendor. ■ **Closed**—incident ticket resolved. ■ **Pending customer**—update awaiting action from the customer who reported the incident. ■ **Referred**—referred incident for further analysis. ■ **Replaced Problem**—update reported problem. ■ **Suspended**—incident ticket has been suspended.
Title	Incident title, based on reported incident.

Fields—Incident Details tab

See the Incident Details tab pictured in Figure 6-7 on page 216.

Field	Description
Reported By	User (contact) who reported the incident.
Category (***required***)	Earlier you selected an Incident Management category to begin the quick open process and classify the Incident ticket. If you have a default category already specified, this category is entered automatically into the field.
Sub Category (***required***)	More specific breakdown of the category.
Product Type	Asset product type.
Problem Type	Type of problem being reported.
Company	Name of the company from the *company* file.

Field	Description
Owner	ServiceCenter operator opening the ticket. By default, Incident Management automatically enters the name of the user who is currently logged on.
Primary Asgn Group	This is the selection you made earlier when you started the Quick Open process. The primary assignment group is responsible for resolving the Incident ticket.
Assignee Name	Person responsible for resolving the problem.
Second Asgn Group	Backup assignment group responsible for the ticket.
Total Loss of Service	Asset has total loss of service.
Severity	Indicates how pressing an incident is for the caller. The severity can be *Critical, Major, Medium, Low, or Very Low*. The default is *Low*.
Site Category	Enter the site category.
Cause Code	Defines the probable cause of the incident. Refer to *Cause Codes and Probable Cause* on page 254.
Description	Description of the incident.

Fields—Actions/Resolution tab

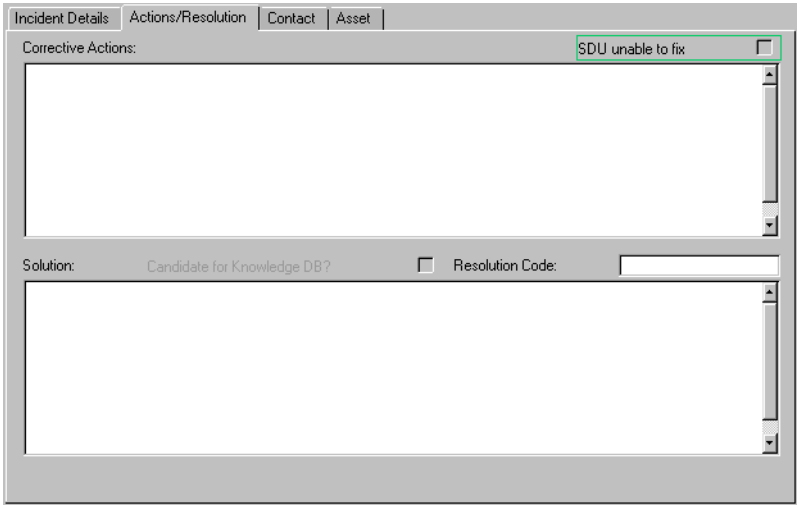


Figure 6-8: Quick-Open Incident Ticket—Actions/Resolution tab

Field	Description
Corrective Actions	Text box where corrective actions can be entered to show how the incident was resolved.
SDU unable to fix	Check here if service delivery unit unable to fix.
Solution	Text box where you can enter details about the resolution of the incident.
Resolution Code	Provides a list of similar incidents from which you can choose a resolution. The resolution code and a description of the steps taken to resolve the incident are entered in the incident ticket.

Fields—Contact tab

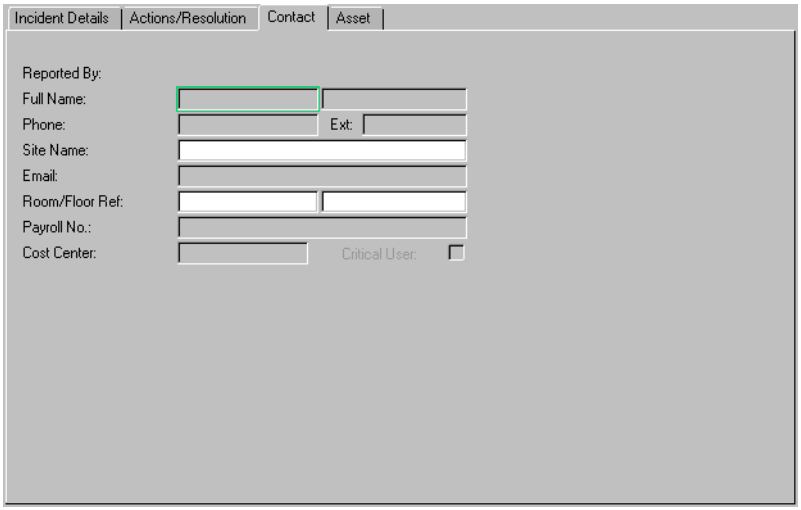


Figure 6-9: Quick-Open Incident Ticket—Contact tab

Field	Description
Reported By	The *Contact Name* related to the company from which the call was received. Click **Browse** to select a **Contact Name** from the QBE list of contact names. The fields (**Full Name**, **Phone**, **Ext.**, **Site Name**, **Email**, **Payroll No.**, and **Cost Center** are automatically filled in from the contacts record for this caller. For more information, see *Contacts File* Appendix A.

Fields—Asset tab

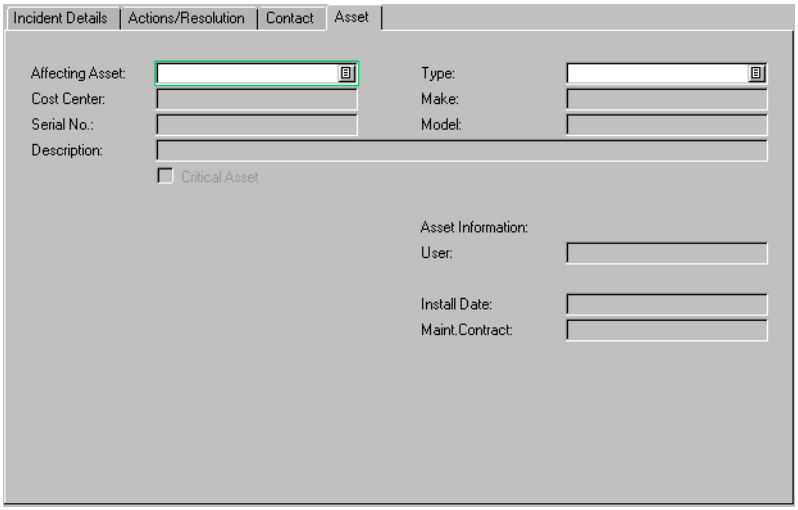


Figure 6-10: Quick-Open Incident Ticket Asset tab

Field	Description
Affecting Asset	Asset for which an incident is being reported. When you select a **Contact Name**, information related to the associated **Affecting Asset** automatically populates the asset information fields (**Type**, **Make**, **Model**, **Cost Center**, **Serial Number**, **Critical Asset**, **User**, **Supervisor**, **Install Date**, and **Maint Contract**) from the asset record of the asset created in Asset Management.

Creating an Incident Ticket—Quick Open

In a busy help desk environment, the quick open function expedites the process of opening incident tickets. Basic information about the incident is recorded and saved. A new form is then displayed, in which you can open another incident report.

To do a quick open of an incident ticket:

1 Access Incident Management.

- If you logged on as a manager or technician, click **Incident Management** (or **Incident Queue**) in your Home menu. The Incident Queue displays.
  - Click **New**.
- If you logged on as a help desk user or system administrator, click **Queues** and **New** in the **Incident** list.

An incident ticket quick open form (Figure 6-11) displays.

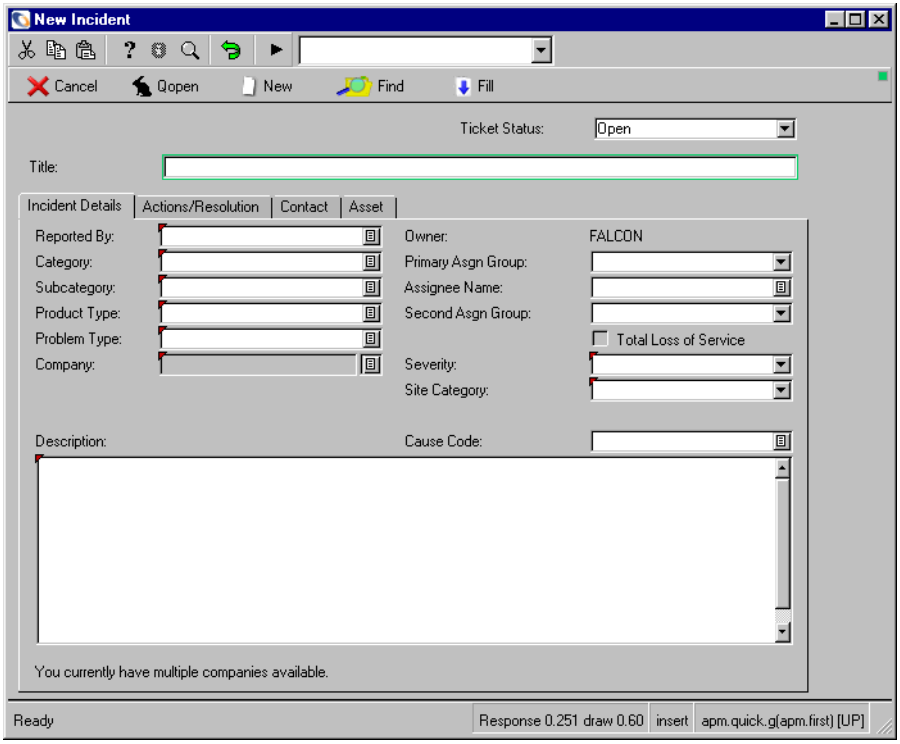


Figure 6-11: Quick-Open Incident Ticket (*apm.quick*) form

2 Click **Browse** for the **Category** field to access a drop-down list. Select a **category** for the incident ticket.

If the **Category** field is left blank, you are prompted to select a category when you attempt to save the ticket. The categories are displayed in a QBE list.

3 Enter information about the incident in **Incident Details**.

4 Enter any other information you have about the incident in the other fields.

5 Click **Qopen** (quick open), or press **F2**.

You are returned to a blank incident ticket form.

A message displays in the status bar that states: *Incident INxxxx has been opened* (where *xxxx* is the incident number).

Options Menu—New Incident Ticket

The **Options** menu in the new incident ticket form contains the following options:

Option	Description
Lookup Cause	Allows you to search the probable cause file for a possible cause and solution to the reported incident. This option works like the Find function, only displaying the record. The Cause Code is not placed in the incident ticket. See *Cause Codes and Probable Cause* on page 254.
Knowlix>Search Solution	Accesses Peregrine Systems' Knowlix product.
Knowlix>Retrieve Solution	Retrieves information from the Knowlix product.
Get-Answers>Open	Opens Get-Answers in a browser. Choose this option when you want Get-Answers opened, so that you can type your own query. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Search Solution	Uses the text in the **Description** field as the query string for Get-Answers. A browser window opens with a list of results from the search query. Choose this option when you think the Description will "find" quality answers within Get-Answers. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Retrieve Solution	Inserts a Get-Answers solution into the ServiceCenter incident record. This option requires a Get-Answers record to be open. Choose this option after you have searched for a solution and you have found the one to apply to the incident. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Author Solution	Allows users to add new entries derived from ServiceCenter to the Get-Answers knowledge base. This option is available only for resolved incidents and when Get-Answers is integrated with ServiceCenter.

Option	Description
Remote Control>Remote Manager	Connects to the **Remote Management** utility, if installed.
Remote Control>Connect to Device	Allows you to connect to another asset. Part of the Remote Management application.
Find Solution	Accesses the Knowledge Base to search for possible solutions to the incident reported in the call. See *Knowledge Base - Diagnostic Aids* on page 561 for more information.

Creating an Incident Ticket

Information in this section includes an example for opening a new incident ticket, using the complete ticket open process rather than the quick open process. The completed example is shown in Figure 6-23 on page 233.

Two forms are used in the process of opening an incident ticket. The initial form is the same as the form used to open an incident ticket as a quick open ticket. The second form provides additional fields specific to the category of the incident ticket, which allows you to add more detailed information about the incident.

This procedure is divided into four sections:

- *Accessing the Initial Form for Opening a New Incident Ticket* on page 223.
- *Completing the Top Portion of the Initial Incident Ticket Form* on page 224.
- *Completing the Fields to Log the Incident* on page 225.
- *Completing the Expanded Incident Ticket Form* on page 228.

Accessing the Initial Form for Opening a New Incident Ticket

- If you logged on as a help desk user, click **Queues**. In the Incident list, click **New**.
- If you logged on as an administrator, click **Incident Management** on the Home menu. Then click **Open New Incident**.
- If you logged on as a technician or a manager, click **Incident Queue** on the Home menu. In the Incident List inbox displayed, click **New**.

An initial blank incident ticket form displays. This form is the same as the form used for the quick-open process.

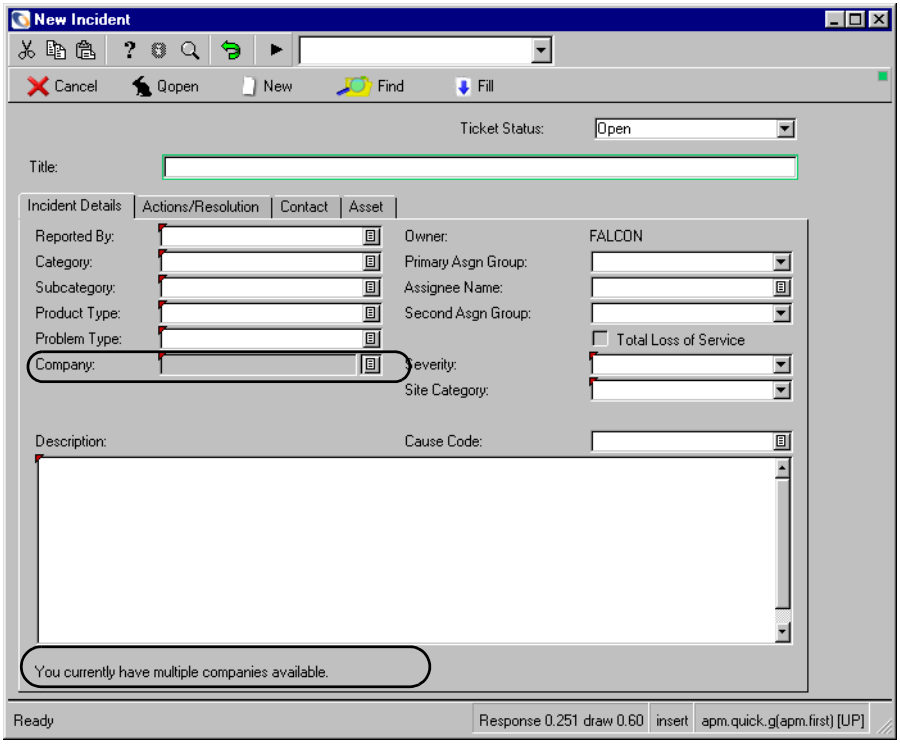


Figure 6-12: Initial Incident Ticket form

Completing the Top Portion of the Initial Incident Ticket Form

1 If you haven't chosen a company, you receive the following message in the status bar (Figure 6-12): *You have chosen to have multiple companies available.*

Click **Browse** in the **Company** field to select a company from the record list.

2 Note that the **Ticket Status** field is already filled in. You can change this field as needed.

a **The ticket status** defaults to Open (as shown in the Ticket Status field). This status can be changed to:

- Pending other
- Work in progress
- Reject

- Resolved
- Pending vendor
- Pending customer
- Closed
- Referred
- Replaced Problem

For this example, use the default setting (Open).

Completing the Fields to Log the Incident

1. The **Owner** field is automatically filled in with the name of the person who is logged on and is filling out the ticket.
2. In **Category**, select a **category** for the ticket. This field is required. Categories are discussed in *What is a Category?* on page 109 in the *Service Management chapter* of this guide.

   For this example, select client system.
3. In **Sub Category**, select a subcategory for the field if desired. This field is optional.

   For this example, select hardware.
4. In **Primary Asgn Group**, select an **assignment** group to resolve the incident.

   For this example, select HELP DESK.
5. In **Severity**, modify the urgency of the incident. You can change the value by selecting another priority from the drop-down list.

   For this example, select 3 - Normal.
6. In **Site Category**, select the site description. You can select the value by selecting a site code and description from the drop-down list.

   For this example, select D - Home Site.
7. In the **Contact** tab, click **Fill**. When the Search dialog box displays, click **Search**. Select a contact name to enter the caller's name in the **Reported By** field. The remaining information about the caller (contact) is filled in automatically from the database.

   If an asset is associated with this contact, ServiceCenter automatically fills in the **Asset ID** field. If multiple assets are associated with this user, a QBE list displays prompting you to select the affected asset.

   For this example, click **MILLER**.

8 In the **Incident Details** tab, select a group for **Secondary Assign** to back up the primary assignment group.

For this example, leave this field blank.

9 The **Affecting Asset** field in the **Asset** tab is automatically filled in if the name entered in the **Reported By** field was associated with an asset. If not, click **Fill** to select the asset number for this field.

For this example, AdamPC was automatically entered when the **Reported By** field was filled.

10 Enter a **Product Type**.

For this example, select desktop.

11 Enter a **Problem Type**.

For this example, select monitor.

12 Type a description of the incident at the bottom of the Incident Details tab.

For this example, type Monitor screen is flickering.

13 **Cause Code** is an optional field. Click **Fill**, or press **F9** to access a QBE list of ServiceCenter cause codes. Cause codes allow incident tickets to be more easily categorized and assigned. See *Cause Codes and Probable Cause* on page 254 for more information.

For this example, no cause code is entered.

14 Click **New**, or press **F4**.

Note: If a required field is left blank, a prompt displays asking you to enter the information.

Depending on how you have logged on, a QBE list of existing incident tickets that are similar to your new incident ticket may be displayed. Click **New** to continue.

An open incident ticket form displays that is specific to the selected category. The information you entered in the initial incident ticket form displays in the second (expanded) form (Figure 6-13 on page 227).

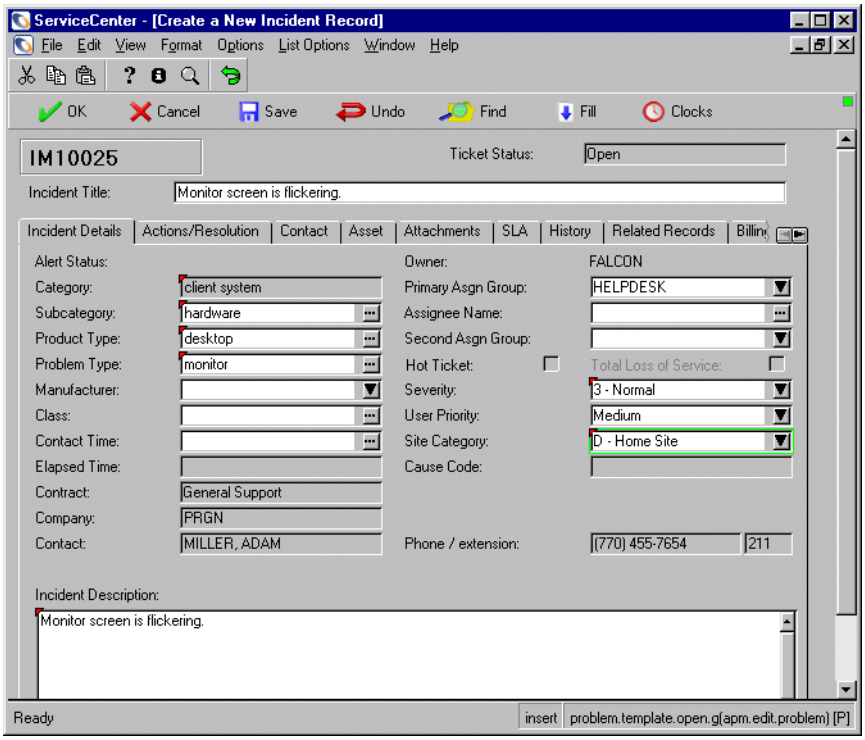


Figure 6-13: Expanded Incident Ticket form

Note: If any of the Incident Matching Options in your user profile are selected (**Check Similar Incidents**, **Check Incident Duplicates on Device**, or **Check Incident Duplicates on Parents**), a QBE list of existing incident tickets that match these options displays. Those that are similar to the description you have entered in your new incident ticket and are specific to the category you selected are displayed (Figure 6-12 on page 224).

Double-click an entry in the list to view the incident record. Check to see if an incident ticket has already been created to avoid creating a duplicate incident ticket.

If you do not find another ticket that is a match to the current incident, click **New** to continue processing your new incident ticket. The expanded ticket form is opened (Figure 6-13).

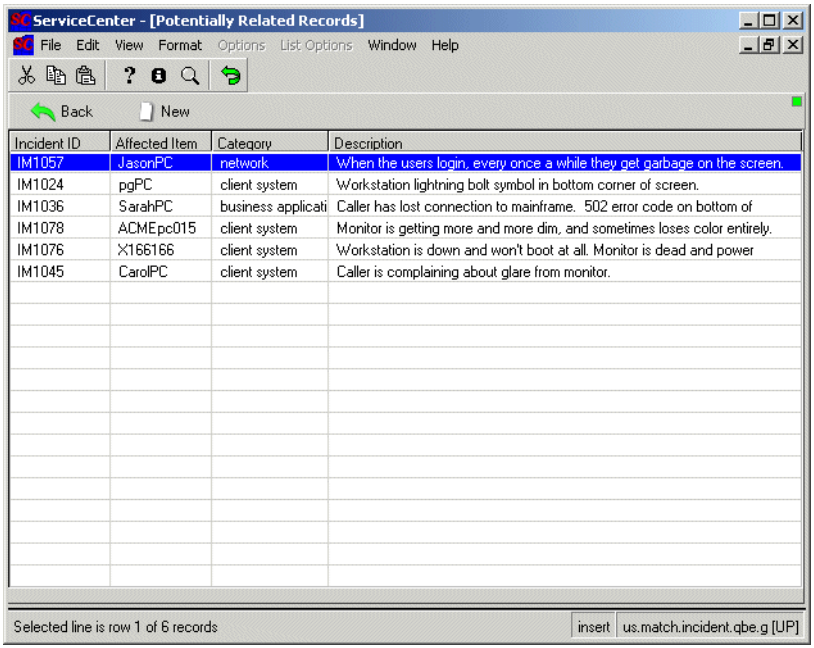


Figure 6-14: QBE list of similar incident ticket records

Completing the Expanded Incident Ticket Form

The information you entered in the initial incident ticket form displays in the second form, which is an expanded form with more tabs containing information, such as SLA, history, and billing information (Figure 6-13 on page 227).

The expanded incident ticket form can be filled in as described below:

1 The first sentence from the **Incident Description** expanded field is entered in the **Incident Title** field at the top of the form. You can change this if you wish.

2 In the **Assignee** field in the Incident Details tab (pictured in Figure 6-13 on page 227), select the name of the person who is assigned to and is responsible for resolving the incident.

For the example, select SUSIE.SUPERTECH.

3 You can use the **Second Asgn Groups** field to assign one or more additional assignment groups. To assign more than one group:

   a Select a group from the drop-down list.

   b Select a second group from the list.

   c Use the arrow keys to the right of the drop-down list to scroll between the selected groups.

   For the example, leave this field blank.

   Note: If you have the Work Management application installed, you can use the **Scheduled Start** and **Scheduled End** fields to enter your estimates for the time needed for incident ticket resolution.

   For this example, leave these fields blank.

4 Click the Contact tab for more information on the contact listed in the **Contact** field and the associated asset, if applicable.

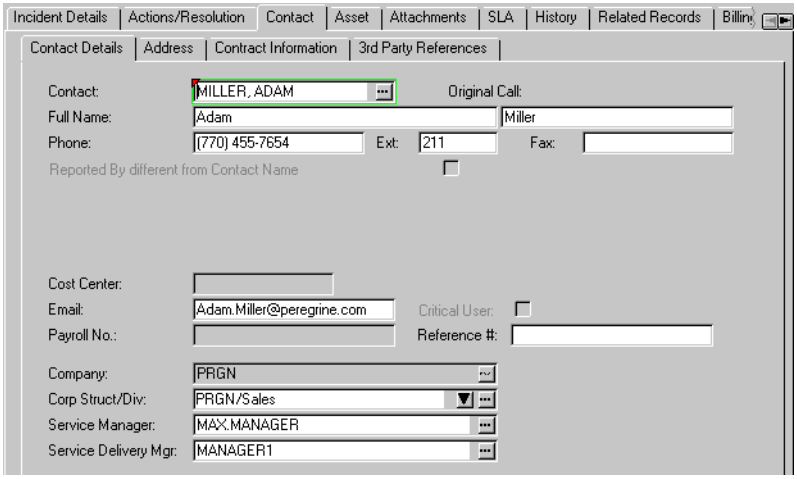


Figure 6-15: Expanded Incident Ticket form—Contact tab

- If a contact is not entered in the **Contact** field, click **Options>Add/Edit Contact.** Click **Fill**, or press **F9** to access a QBE list of contacts. The contact records are stored in the ServiceCenter database. The associated fields are automatically filled.
- If you need to select a different user, clear the field and double-click on the desired contact in the QBE list.
- If an asset record is linked to this user, that asset is automatically entered in the **Affected Item** field.

- If no asset is associated with this contact, the **Affected Asset** field of the Asset tab is left blank. Click **Fill** to select a asset. The associated fields are automatically filled.
- If you need to select a different asset, clear the field and double-click the desired asset in the QBE list.

For this example, **AdamPC** is already entered (see Figure 6-16).

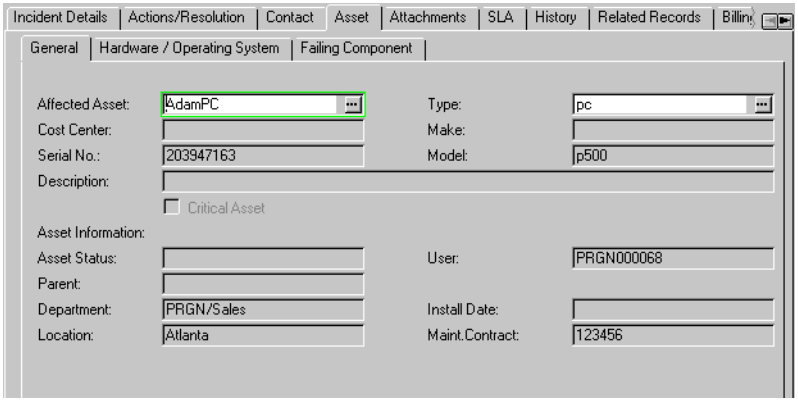


Figure 6-16: Expanded Incident Ticket form—Asset tab

5 Click the Hardware/Operating System tab to view information about the affected asset (pc in this example). See Figure 6-17.

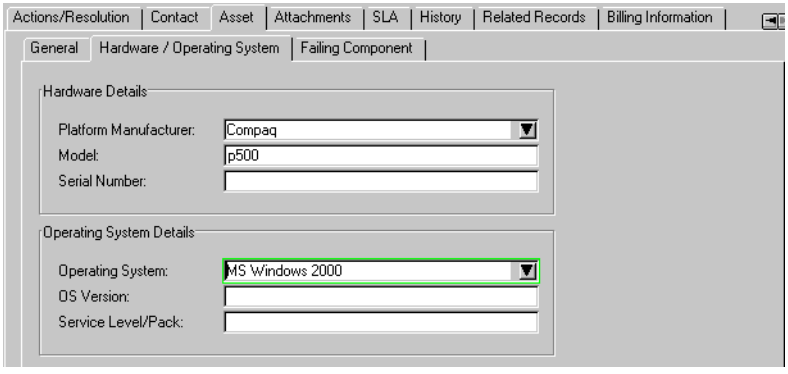


Figure 6-17: Expanded Incident Ticket form—Hardware/Operating System tab

6 Click the SLA tab to view the *Service Level Agreement* for the asset (Figure 6-18). This option may not be available if Service Level Management is not enabled. Only the name of the agreement displays.

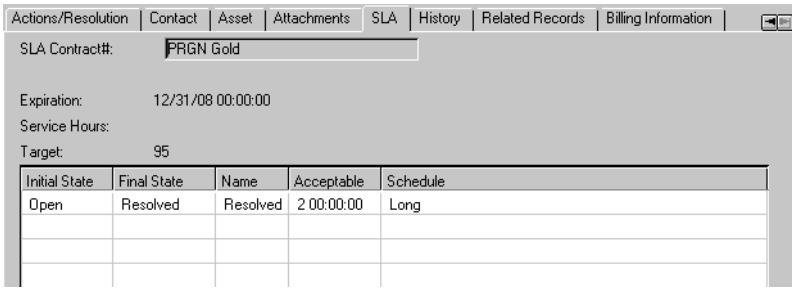


Figure 6-18: Expanded Incident Ticket form—SLA tab

a If there are multiple agreements, click the Down arrow to select an agreement.

b Click **Find** to view details on an SLA.

7 Click the History and Billing Information tabs (Figure 6-19 on page 231 and Figure 6-20 on page 231) to view information about the reported incident.

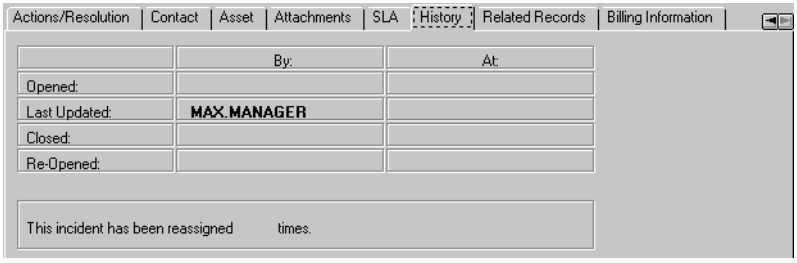


Figure 6-19: Expanded Incident Ticket form—History tab

Figure 6-20: Expanded Incident Ticket form, Billing Information tab

8 Click the Attachments tab (Figure 6-21) to add files from other applications (for example, an Excel spreadsheet) that provide additional information about the incident.

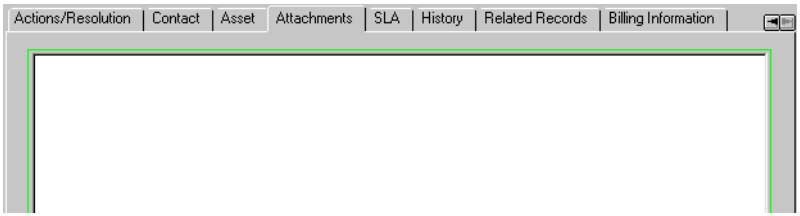


Figure 6-21: Expanded Incident Ticket form—Attachments tab

9 To attach a file, copy or drag it into the field provided on the Attachments tab.

10 Click **Save**, or press **F2**. This opens an incident ticket and saves the information to the **probsummary** file. ServiceCenter automatically assigns an incident number and a status of *open* to the ticket.

A message displays in the status bar that states: *Incident INxxx has been opened*.

Figure 6-23 on page 233 shows the completed example incident ticket.

Note: Due to the default setting in the SLA options, outages are automatically posted. However, if you have this default setting unchecked (*false*), you are prompted with the *Post Which Outages?* form (Figure 6-22).

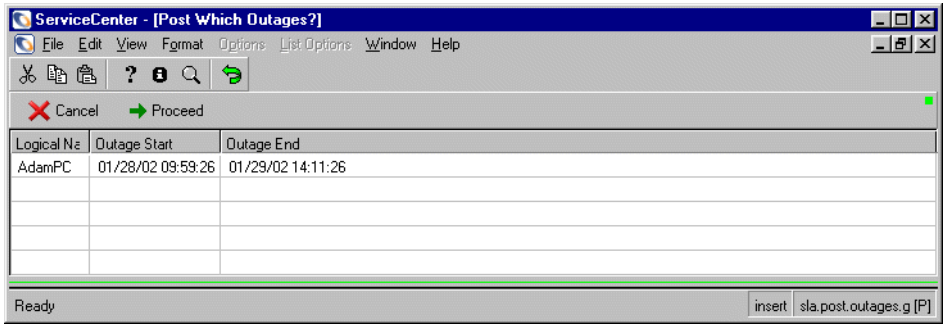


Figure 6-22: Post Which Outages? form

11 Click **Proceed**.

The incident ticket is redisplayed with a message in the status that states: *Incident IMxxx has been opened*. See Figure 6-23 on page 233.

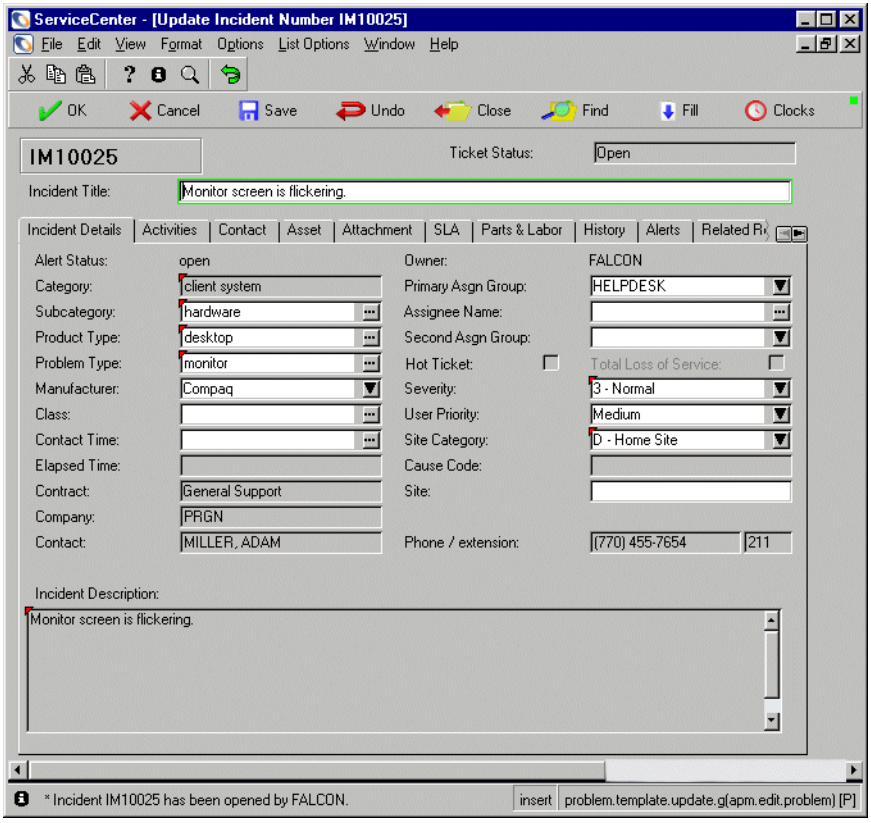


Figure 6-23: Example Incident Ticket

Updating an Incident Ticket

To update an existing incident ticket:

1 Access Incident Management to search for the incident ticket you want to update:

Click **Incident Queue** to access an Incident Management inbox.

-or-

If logged in as an administrator, click **Search IM Tickets** to access a search form.

2 Find the incident ticket you want to update:

   a Double-click on the desired incident in the Incident Management list.

   b Use the search function to locate the incident ticket. Refer to *Search Incident Management* on page 206.

   - If you know the ticket number, enter that number in the **Number** field. If you have **Smart Search** selected, you need only enter the number. If you do not have Smart Search activated, you must enter the incident ticket prefix (IM), for example, IM109.
   - If you do not know the number, enter any information you know about the ticket in the appropriate fields. This narrows the search parameters for the ticket.

3 Modify any fields that require updating in the **Incident Details** tab.

   For example, you could change the **Priority** of the incident if it has changed since the incident was first reported. Click the Arrow button or the arrow keys to choose a new setting.

4 Click the **Actions/Resolution** tab. Enter any new information about the incident under **Corrective Actions**.

   For the example, you can enter an update of Technician dispatched.

5 Click Save, or press **F2**.

   A message displays in the status bar that states: *Incident IMxxx has been updated*.

Options Menu—Existing Incident Ticket

The existing incident ticket form **Options** menu contains a set of options similar to the call report options. Some of these options are described in more detail in the following sections.

Option	Description
Get-Answers> Open	Opens Get-Answers in a browser. Choose this option when you want Get-Answers opened, so that you can type your own query. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Search Solution	Uses the text in the **Description** field as the query string for Get-Answers. A browser window opens with a list of results from the search query. Choose this option when you think the Description will "find" quality answers within Get-Answers. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Retrieve Solution	Inserts a Get-Answers solution into the ServiceCenter incident record. This option requires a Get-Answers record to be open. Choose this option after you have searched for a solution and you have found the one to apply to the incident. This option is only available when Get-Answers is integrated with ServiceCenter.
Get-Answers> Author Solution	Allows users to add new entries derived from ServiceCenter to the Get-Answers knowledge base. This option is available only for resolved incidents and when Get-Answers is integrated with ServiceCenter.
Set Reminder	Allows you to set up a reminder to be sent to you at a specified time through e-mail, a page, or a pop-up message.
Print Record	Prints this incident ticket record to the user's default ServiceCenter printer.
Clone	Copies the currently displayed record to create a new record.
Notify	Allows you to send a message containing the data in this incident ticket to other ServiceCenter users.
Page List	Displays the open and update pages (records) that have been created for this incident ticket. If a ticket contains multiple pages, a QBE list displays to select the page you want to display. Each page can be printed.

Option	Description
Lookup Cause	Allows you to search the probable cause file for a possible cause and solution to the incident. This option works like the Find function, only displaying the record. The Cause Code is not placed in the incident ticket. See the *Cause Codes and Probable Cause* on page 254.
Callback List	List of contacts who can be notified when an incident ticket is closed.
Find Solution	Accesses the Knowledge Base to search for possible solutions to the incident reported in the call. See *Knowledge Base - Diagnostic Aids* on page 561 for more information.
Related >Calls >Associate	Allows you to associate this incident ticket to an existing call report.
Related >Calls >View	Displays a QBE list of the Service Management call reports associated to this incident ticket.
Related >Calls >Open	Allows you to open a call report that is associated to this incident ticket.
Related >Incidents >Associate	Allows you to associate this incident ticket to another incident ticket.
Related >Incidents >View	Displays a QBE list of the other incident tickets associated to the current incident ticket displayed.
Related >Incidents >Open	Allows you to open an incident ticket associated to the current incident ticket displayed.
Related >Changes >Associate	Allows you to associate this incident ticket with a Change Management change.
Related >Changes >View	Displays a QBE list of the Change Management changes associated to this incident ticket.
Related >Changes >Open	Allows you to open a Change Management change that is associated to this incident ticket.

Option	Description
Related >Quotes >Associate	Allows you to associate this incident ticket to a Request Management request (quote).
Related >Quotes >View	Displays a QBE list of the Request Management requests associated to this incident ticket.
Related >Quotes >Open	Allows you to open a Request Management quote that is associated to this incident ticket.
Related >Root Causes >Associate	Allows you to associate a recurring problem to a Root Cause ticket that is associated to this incident ticket.
Related >Root Causes >View	Displays a QBE list of the Root Cause tickets associated to this incident ticket.
Related >Root Causes >Open	Allows you to open a Root Cause ticket that is associated to this incident ticket.
Change Category	Allows you to change the category of this incident ticket.
Add/Edit Contact	Displays the Contact record for the contact identified with the current incident ticket.
Knowlix> Search Solution	Access Peregrine Systems' Knowlix product.
Knowlix> Retrieve Solution	Retrieve information from the Knowlix product.
Notes	Allows you to create side notes about an incident ticket. These notes are saved with the ticket.
Remote Control> Remote Manager	Accesses the **Remote Manager** application.
Remote Control> Connect to Device	Allows you to connect to the network address of the asset listed in the current incident ticket. Refer to the *Remote Management/ServiceCenter Interface Guide* for more information.

Option	Description
IND System Analyzer	Launch the Network Discovery System Analyzer, which allows you to analyze the network path between two assets to isolate problems, from an incident ticket.
Generate Maintenance	Option available for changes only. Allows you to schedule the creation of changes, using the current record as a template.
Create Hot News	Create Hot News item within the Knowledge Base. See *Knowledge Base - Diagnostic Aids* on page 561 for more information on Hot News.

List Options Menu—Existing Incident Ticket

List Option	Description
Count	Counts the number of records in the current QBE Record list.
Print List	Allows you to print a copy of the current QBE Record list.
Refresh List	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 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.
Save List as Inbox	Allows you to save the current list as an inbox.
New	Displays a blank form for opening a new incident ticket.
View All Related >Calls	Allows you to view all calls related to this incident ticket.
View All Related >Incidents	Allows you to view all incidents related to this incident ticket.
View All Related >Changes	Allows you to view all change records related to this incident ticket.
View All Related >Root Causes	Allows you to view all root cause records related to this incident ticket.

Setting a Reminder

From an existing incident ticket, you can schedule a reminder to be sent to you at a specified time.

To access the Set Reminder feature:

1 With an existing incident ticket displayed, select **Set Reminder** from the Options menu.

The Set Reminder form displays (Figure 6-24 on page 239).

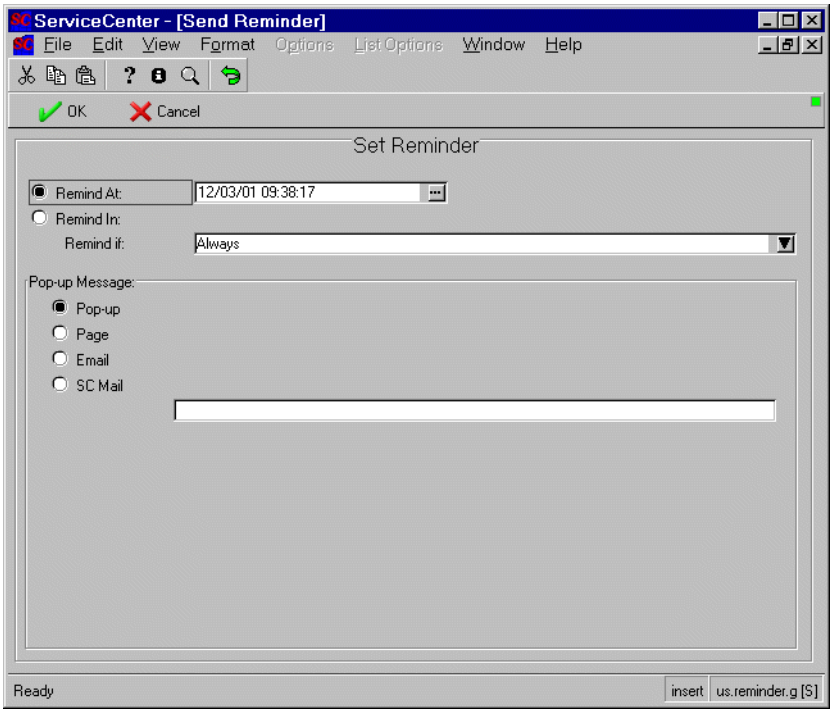


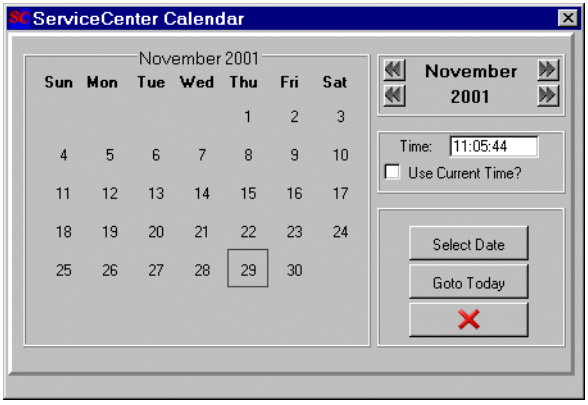
Figure 6-24: Set Reminder form

2 There are two options for setting the time when the reminder occurs.

a Select **Remind At** to set a reminder for a particular day and time.

b Select **Remind In** to set the reminder to occur at a particular interval. This options brings up two fields; enter the time interval, and select the shift you are working from the drop-down list.

3 Click **Fill** to bring up the ServiceCenter Calendar. You can use the calendar to select the date and time you want the reminder to occur.

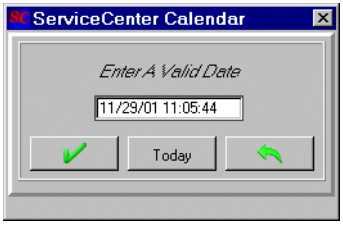


a Enter the time in the **Time** field. Click on the day you want the reminder to occur. The dialog box closes and the information is filled into the **Remind At** field.

b To move forward or backward, click the Arrow buttons at each side of the month and year.

c To return to today's date, click **Goto Today**.

d To go to a specific date, click **Select Date** and type the date in the dialog box displayed. Click **OK** to accept the entry and return to the Calendar. Clicking the back arrow returns you to the Calendar with no change.



4 In the **Remind if** field, select an option from the drop-down list:

- Always (the default)
- Incident has not been updated
- Incident is still open
- Incident is still assigned to me

5 In the Pop-up Message area of the form, select the type of notification you want:

- Pop-up
- Page
- Email
- SCMail

If you select Pop-up or Page, type the message in the **Message** field that you want to display in the reminder.

Choosing **Email** or **SCMail** displays two **Message Type** option buttons (Figure 6-25 on page 241). Select the type of e-mail message you want sent. There is also a **Title** field where you can enter a title for the e-mail message.

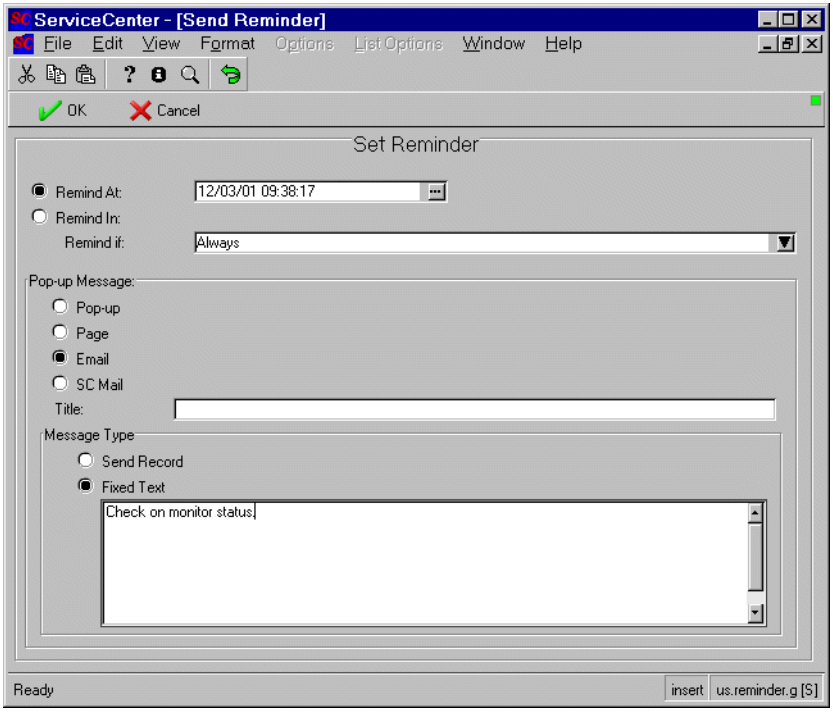


Figure 6-25: Set Reminder form with Message Type Displayed

6 Select the type of e-mail you want sent:

- **Send Incident Record.** This option includes a copy of the incident ticket in the e-mail.
- **Fixed Text**. This option displays a text box in which you can type the message you want to display in the e-mail message (Figure 6-26 on page 242).

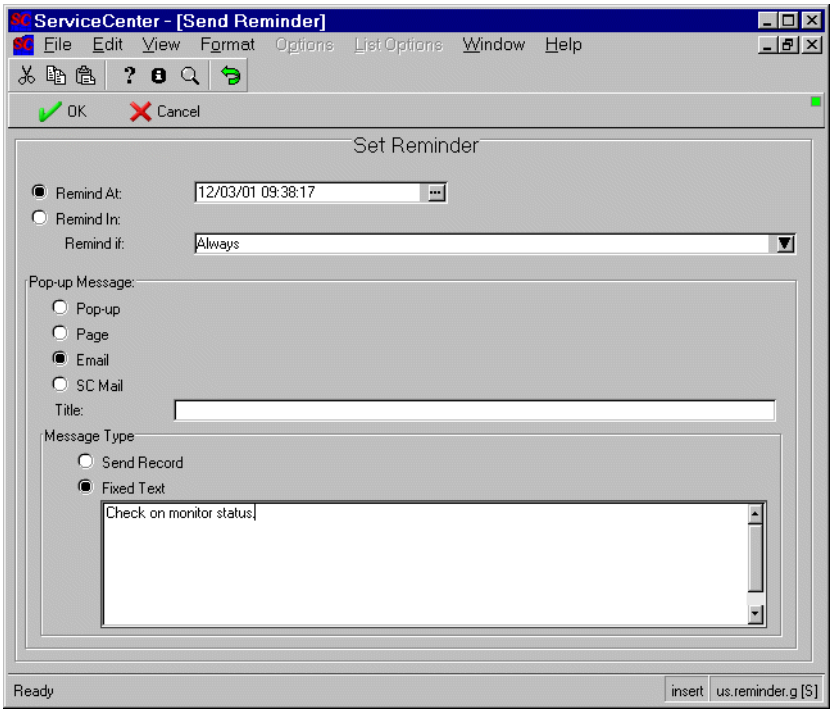


Figure 6-26: Set Reminder form with Fixed Text Field Displayed

7 When you have made all your selections, click **OK**.

The initial incident ticket from which you set the reminder displays.

Related Records

Associating an Incident Ticket with Another Record

You can associate an incident ticket with an existing Service Management call report, a Request Management request (quote), a Change Management change, another incident ticket, or a Root Cause ticket. Before associating an incident ticket with another record, make note of the ID number of the record. For example, a call report could have an ID number of *CALL1001*. You need to enter this number in the following process.

To associate an incident ticket with another record:

1 Access the incident ticket.

2 Select **Options>Related>Calls/Incidents/Changes/Quotes/Root Causes>Associate/View/Open ticket.**

A dialog box displays asking:

Associate Incident xxxxxx with which Call/Incident/Change/Quote/Root Cause ticket

3 Type the ID number or search for the record to which you want to associate this incident ticket.

- For a call report, type the number in the form of CALL*xx*, where *xx* is the call number.
- For an incident ticket, type the number in the form of IM*xx*, where *xx* is the incident ticket number.
- For a quote, type the number in the form of Q*xx*, where *xx* is the quote number.
- For a change record, type the number in the form of *xx*. The change number does not have a defining letter.
- For a root cause ticket, type the number in the for of RC*xx*, where xx is the root cause number.

4 Click **OK**. A confirmation displays in the status bar.

Opening a Related Record

You can open an incident ticket, a Service Management call report, a Request Management request (quote), Change Management change, or Root Cause ticket from Incident Management. The new record is related to an existing incident ticket.

To open a related record from Incident Management:

1 Open an existing incident ticket. Refer to *Search Procedures* on page 214 for help in accessing an existing incident ticket.

2 Open the **Options** menu and highlight one of the related options, such as **Related**, **Incidents**, or **Open** to open incident tickets.

3 Open **Related>Calls/Incidents/Changes/Quotes/Root Causes** from the **Options** menu.

- If you are opening a related incident ticket, a QBE category list displays. Double-click on the desired category and a form for opening the new incident ticket displays.
- If you are opening a related change, a QBE category list displays. Double-click on the desired category and a change record displays with the category and related information from the incident ticket filled in.
- If you are opening a related quote, a new quote form displays with information related to the incident ticket already filled in.
- If you are opening a related root cause, a new form displays with information related to the incident ticket already filled in.

Refer to the appropriate chapters in this guide (*Service Management* on page 105*;* *Incident Management* on page 197*;* *Change Management* on page 407*;* and *Root Cause Analysis (RCA) and Incident Management* on page 379, as well as the *Request Management* guide for help in filling out the forms).

4 Save the related record. Click **OK**.

You are returned to the initial incident ticket.

Notifying Other ServiceCenter Users

You can send the information in an incident ticket to other ServiceCenter users without reassigning the ticket via the Notification Engine.

Note: Notification methods can include: Email, fax, and SCMail.

To make sure a user is set up to send notification messages:

- Go into that user's Incident Management profile and make sure the **Notify** privilege is checked (*true*).

  -and-

- Make sure the **Notify** option is selected in the Options menu.

Only users with the Notify privilege can send notification messages (see Figure 6-28 on page 246). Messages are generated by ServiceCenter events, such as opening or closing an incident ticket.

Note: Only administrators can edit these messages, add new messages, change the conditions under which the messages are sent out, as well as select who receives the messages. See the *System Tailoring* guide, *Notification Engine*, for more information.

To notify other ServiceCenter users:

For this example, *FALCON* is notifying other ServiceCenter users of an Incident ticket that has just been opened.

1. Access Incident Management from the ServiceCenter home menu.
2. Click **Search** to bring up the *apm.search.probsummary* form.
3. Enter the Incident Management new ticket number and click **Search** to retrieve the new IM ticket.
4. When you locate the new ticket, click **Options**>**Notify** (Figure 6-27).

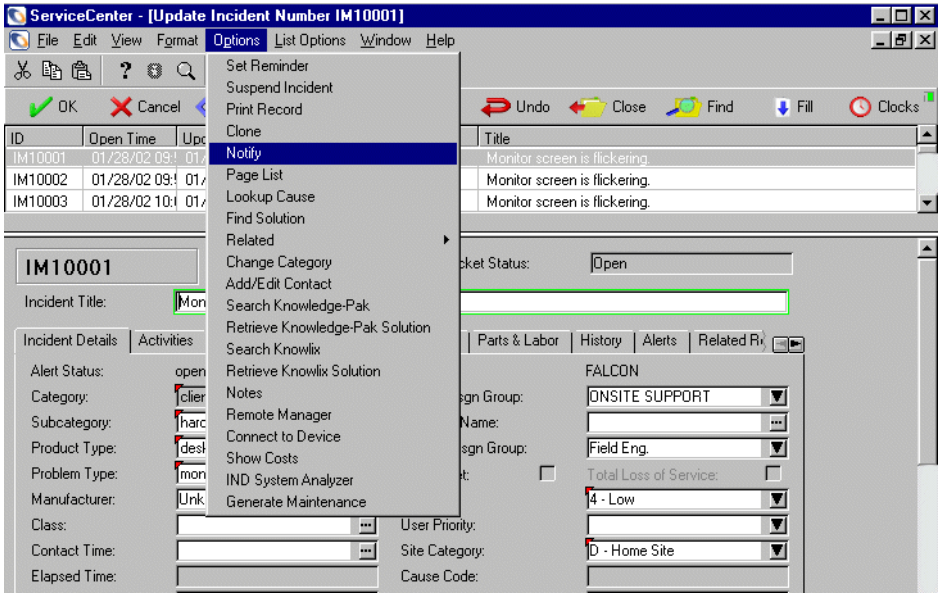


Figure 6-27: Notifying other ServiceCenter users

A Notify form displays and the basic information about the ticket is automatically entered (Figure 6-28 on page 246).

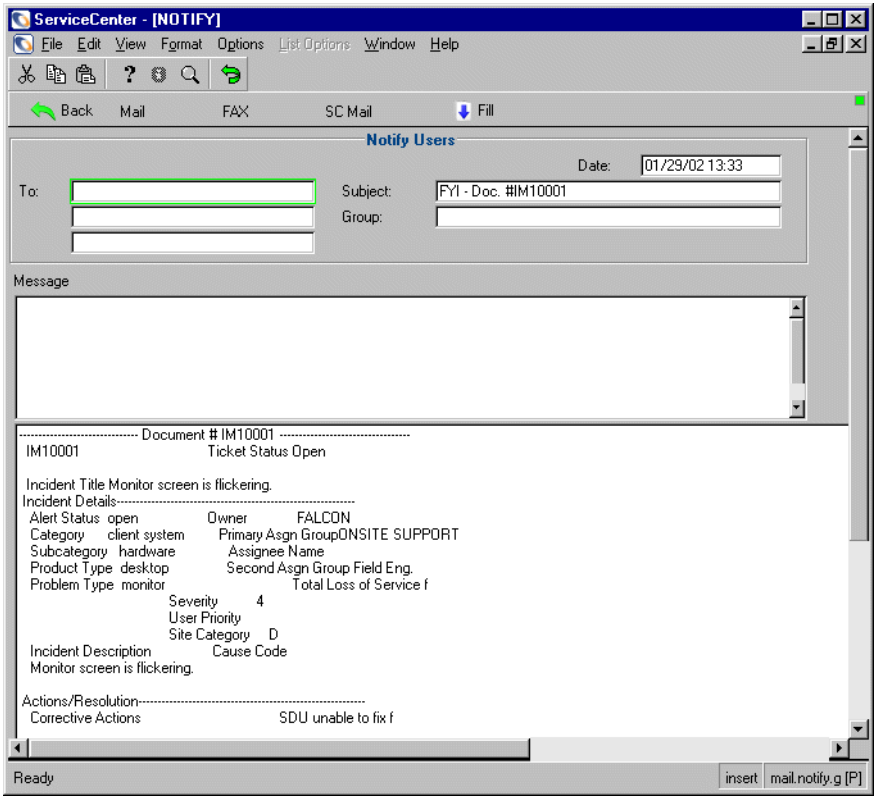


Figure 6-28: Incident Management Notification

5 Click **Fill**, or press **F9**, to enter the ServiceCenter users to whom you want to send the message.

6 In the **Message** field, type any **message** you want to include with this notification.

7 Select the method by which you want to send the notification.

- Click **Mail**, or press **F2**, to send the message by email.
- Click **FAX**, or press **F5**, to send the message by fax.
- Click **SC Mail**, or press **F6**, to send the message through the ServiceCenter mail function.

After selecting how to send the message, you are returned to the incident ticket. A message displays in the status bar in the incident ticket stating that the notification has been scheduled to be sent.

Creating Notes

You can create notes for an existing incident ticket, as long as you have the **Notes** privilege checked (*true*) in your Incident Management profile. Notes are remarks that are not placed in the Description, Action, or Resolution fields.

To create Notes:

1 Select **Options**>**Notes** from an existing incident ticket.

A Notes form displays (Figure 6-29 on page 247).

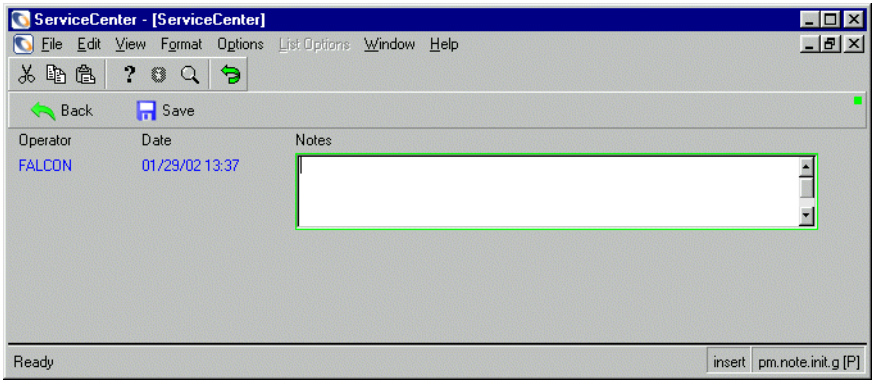


Figure 6-29: Incident Management Notes

2 Enter the information in the **Notes** field.

3 Click **Save** or press **F2** to save the notes, and then click **Back** to return to the incident ticket.

-or-

Click **Back** or press the **Esc** key to return to the incident ticket without saving the notes.

The notes are kept with the ticket. More notes can be added by selecting the Notes option. Each set of notes is tagged with a time stamp and the name of the ServiceCenter operator who created the notes.

Launching the IND System Analyzer

ServiceCenter integrates Peregrine's Network Discovery product to provide network monitoring capabilities within ServiceCenter. See the *Event Services* guide.

IND's System Analyzer allows you to examine the network path between two assets to isolate problems. By checking the status colors of the lines and assets in the object path, you can quickly determine where communication problems are occurring. Network Discovery also lists the service problem detected on the path.

To launch the Service Analyzer from an incident ticket:

▶ Select **Options>IND Systems Analyzer** from the menu bar.

The System Analyzer is launched, and the asset in the incident ticket is listed in the IND dialog box. Simply enter a second asset and launch the analyzer.

See the *Network Discovery User's Guide* for more information on using the System Analyzer.

Closing an Incident Ticket

When an incident is resolved, the ticket can be closed. This does not delete the ticket from the probsummary file, but marks the ticket as inactive.

Note: If Resolve status is enabled in the Incident Management Security Environment settings, then the two-step close process is used.

To close an open incident ticket:

1 Access the incident ticket you want to close by:

- Double-clicking on the desired incident in the Incident List.

-or-

- Using the search function to locate the incident ticket.
  - If you know the ticket number, enter that number in the **Number** field. If you have **Smart Search** selected, you need only enter the number. If you do not have Smart Search activated, you must enter the incident ticket prefix (IM), for example, IM109.
  - If you do not know the number, enter any information you know about the ticket in the appropriate fields. This narrows the search parameters for the ticket.

2 Click **Close**, or press **F6**.

The incident ticket is redisplayed as an incident close form (Figure 6-30 on page 249).

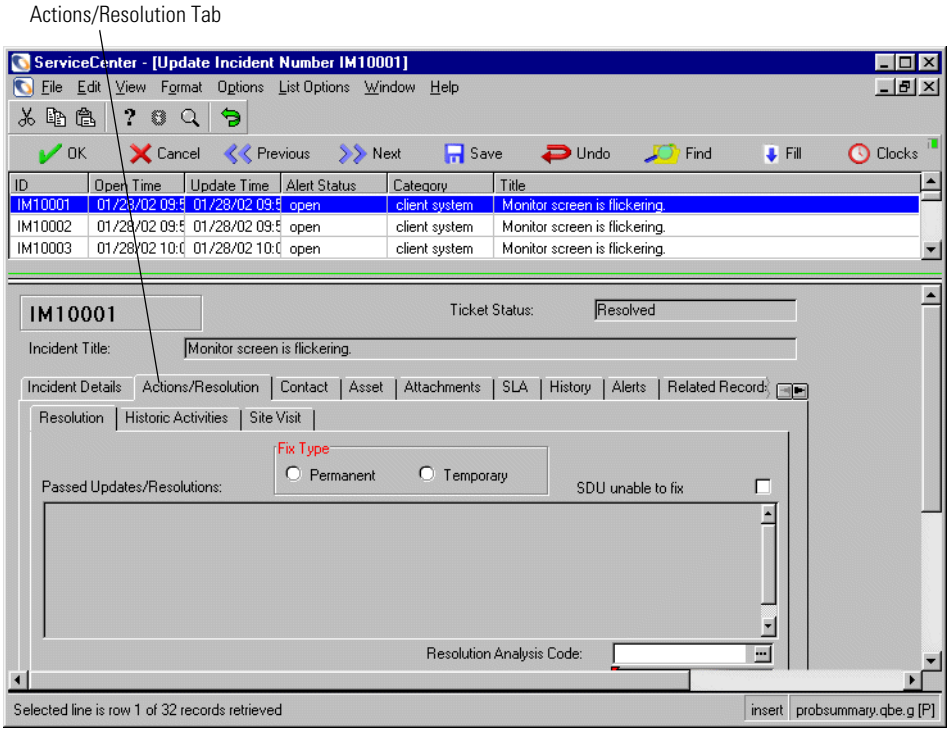


Figure 6-30: Incident Ticket in Close form

3 Select the Actions/Resolution tab.

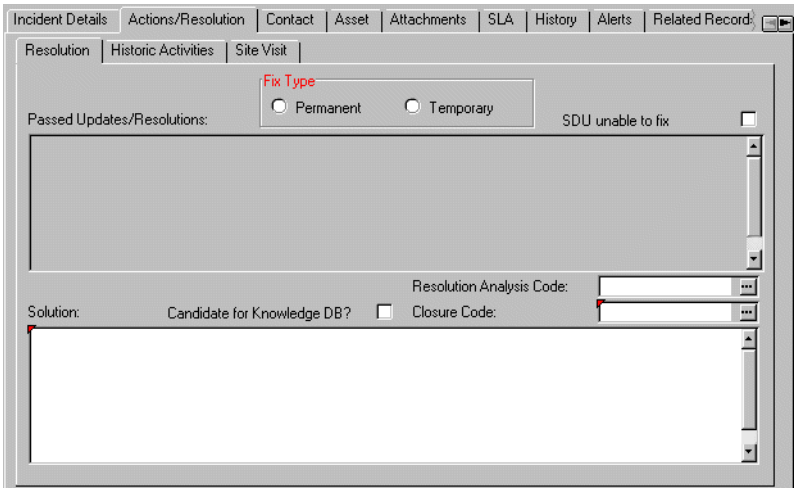


Figure 6-31: Selecting the Actions/Resolution tab

4 You can either enter a solution or select a resolution code that automatically enters a solution.

- In the **Closure Code** field, enter a code. This field is optional. Click **Fill**, or press **F9**, to access a QBE list of possible resolutions.

  A **solution** is automatically entered.

  -or-

- In the **Solution** field, enter a **solution** if one was not entered with a **Resolution Analysis Code**.

5 If the resolution should be saved to the ServiceCenter Knowledge Database, select the **Candidate for Knowledge DB?** box. The Knowledge Database stores common incidents and solutions which can be found using the ServiceCenter IR Query function. See *Knowledge Base - Diagnostic Aids* on page 561.

6 Click **Save**, or press **F2**.

A form displays (Figure 6-32 on page 251) showing the date and time the outage for this asset was ended.

Note: Due to the default setting in the SLA options, outages are automatically posted. If you want to be prompted to post outages and receive the *Post Which Outages?* form, do the following:

a Click **Service Level Mgmt.**

b Click **Configure Module**.

c *Uncheck* **Auto Post Outages**. The default is *true* (checked), which automatically posts outages. When unchecked (*false*), you are prompted with the *Post Which Outages?* form.

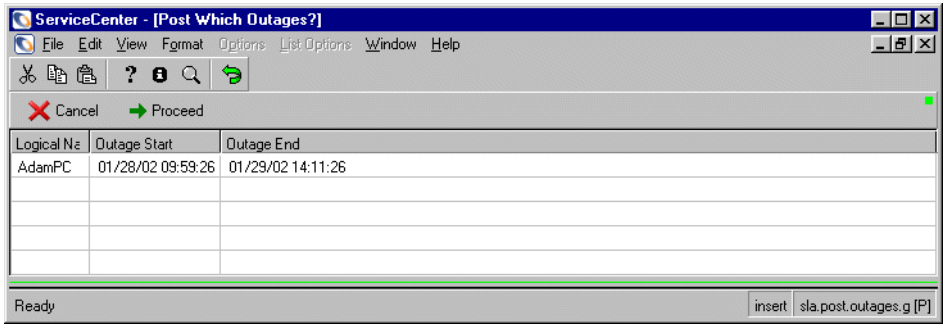


Figure 6-32: Post Which Outages? form

7 Click **Proceed**.

The incident ticket is redisplayed with a message in the status bar that states: *Incident IMxxx has been closed by xxxxx.* (See Figure 6-33 on page 252.)

Note: Depending on the type of incident ticket, a Post Availability form may be displayed. At this point, click **OK**.

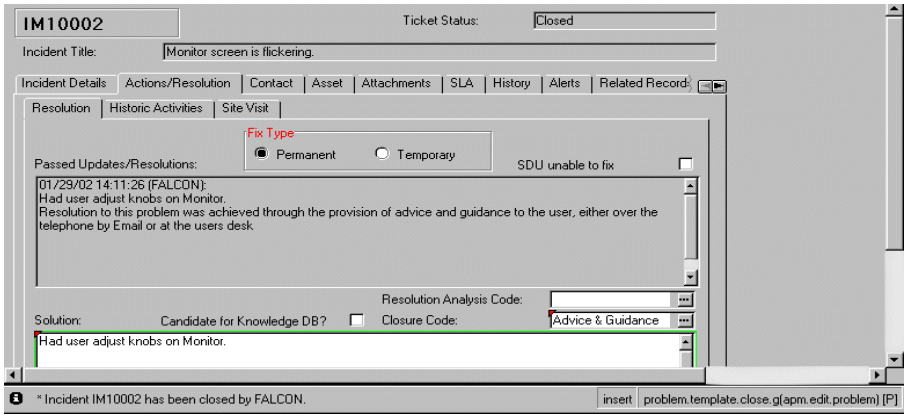


Figure 6-33: Incident ticket has been closed (*problem.template.close* form)

8 If you are closing an incident ticket that has been associated to a Call, a message displays in the status bar that states: *IMxxxx has been closed by <user>. Related calls will be processed normally.*

For information on how related closed calls are processed, refer to *Service Management* on page 105.

9 Click **OK** to complete the close process.

Status, Alerts, and Escalation

ServiceCenter can automatically notify users when an incident ticket is not updated within a specified time period. This escalation is accomplished through the alert process. Alerts are triggered after a set period of time defined in a category record.

An alert is a message stating that an incident ticket has not been resolved.

ServiceCenter supports four *alert stages*:

- Alert Stage 1
- Alert Stage 2
- Alert Stage 3
- Deadline Alert

As various alert stages are reached, notification is sent to the operators in any affected Assignment Group. For example, when a ticket reaches Alert Stage 3, the operators from the ticket's primary Assignment Group, the Alert Stage 2 Assignment Group, and Alert Stage 3 Assignment Group are notified of the escalation. Additional notifications can be set up using macros or the Notification Engine.

Notification can be sent to:

- All contacts in the current contact list for the Assignment Group, except the manager.
- The user who opened the ticket.
- The current primary contact in the owner group.
- The current manager of the Assignment Group.
- The current manager of the owner group.
- The service level manager and client manager of the company and department specified in the ticket.

Within each category record, a time interval is specified for each alert level. This time interval can be adjusted according to the priority assigned to the ticket. Refer to *What is a Priority?* on page 254. An incident ticket reaches each alert stage after the specified time period passes without an update to the incident ticket. At this time interval, the next alert level is reached.

For alert stages 1, 2, and 3, the alerts are reset each time the ticket is updated. The Deadline Alert is always scheduled for an interval after the *open time* of the ticket, and is *not* affected by updates to the ticket.

As an incident ticket passes through the alert stages, the ticket is *escalated*.

What is Escalation?

Escalation is the process of increasing the urgency of an incident ticket. Escalation is accomplished automatically through alerts. As the various alert levels are reached, the escalation increases:

- Stage 1 to Stage 2
- Stage 2 to Stage 3
- Stage 3 to Deadline Alert

At each alert level, ServiceCenter forwards the incident ticket to the next Assignment Group. These groups are set by the ServiceCenter administrator.

The interval between alerts is set in the category records, and it can be impacted by the priority set for the ticket.

What is a Priority?

The priority of a ticket indicates the urgency of an incident, based on a business need. Priorities are set by the user when an incident ticket is opened. The priority is entered in the **Priority Code** field of the initial incident form:

- 1 - Priority one—critical
- 2 - Priority two—urgent
- 3 - Priority three—normal
- 4 - Priority four—low

Priorities can be based on the impact the incident has on users and the category of the ticket. For example, an equipment problem that brings down a group of users is critical. A user wanting to know how to adjust the colors on a monitor is a low priority.

The priority of a ticket can be changed by the user as an incident ticket goes through updates. However, priorities are not changed automatically as alerts progress.

Cause Codes and Probable Cause

The **Cause Code** field is an optional incident ticket field that allows you to define the *probable cause* of the incident. By using a standard series of cause codes, it is easier to track incidents that have a common cause.

Cause codes are derived from the probable cause records defined by the ServiceCenter administrator to simplify the reporting and tracking of incident tickets. The cause code links the probable cause record to the incident ticket. Cause codes allow incident tickets to be more easily categorized and assigned.

To add a Cause Code to an incident ticket:

1 Place the cursor in the **Cause Code** field.

2 If you are opening a new Incident ticket, click **Fill**, or press **F9**.

-or-

If you are updating an existing Incident ticket:

a Put your cursor in the read-only **Cause Code** field.

b Select **Options>Lookup Cause**.

The Cause search window is opened.

c Put your cursor in the **Category** field and click **Search**.

A QBE list of predefined Cause Codes displays (Figure 6-34 on page 255).

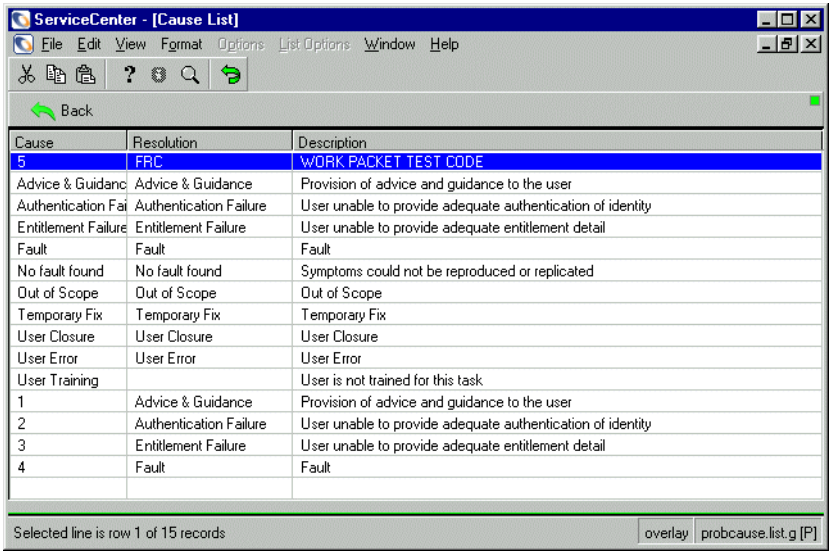


Figure 6-34: QBE List of Cause Codes

3 Double-click on the listing for the Cause Code that applies to the incident.

When the cause code is placed in the ticket, the **Cause Code** field in the **Incident Details** tab is also filled in.

CHAPTER 7

Inventory Management

Inventory Management helps you keep track of the hardware and software on your network and any other assets that have value to your organization.

Other ServiceCenter applications access the asset records from Inventory Management. For example, if you are opening an incident ticket, Incident Management gets the component information from the inventory database. The information can be placed in the ticket when you are creating that ticket.

You can also create asset records with Inventory Management to add new assets, including software, hardware, office electronics, telecommunication devices and furnishings to the inventory database. Besides viewing asset records, your level of access depends on the type of user you are and how your operator profile is configured by your system administrator.

Inventory Management also allows you to create contracts, add assets (including software licenses) to those contracts, make payments against those contracts, and manage contract and payment details.

Topics covered in this chapter include:

Asset Management

Topics covered in this section include:

The Assets tab provides access to Inventory Management functionality that allows you to:

- Add or edit assets via the **Asset** button.
- Manage assets using pre-defined inboxes to find your workload via the **Asset Queue** button.
- View or modify software installation information via the **Installed Software** button.
- View or modify Service Level Agreement information via the **SLA Information** button.

Key Asset Management Terms and Concepts

Device

Anything that is considered to be an asset (has value to the organization). It may include anything from IT equipment and software licenses to furniture items.

Asset record

A data record containing details of a piece of equipment or other component.

Device type file

Each asset in the inventory database has a specified device type. Features of the **devtype** file include the following:

- The device type (**devtype**) file contains one record for each defined device type.
- When a new device type is created, a new record for that device type is created in the **devtype** file.

ServiceCenter includes the following out-of-box device types and subtypes:

Type	Subtype
Applications	Anti-Virus / Security
	Back-up
	Business
	Development Tools
	Entertainment
	Graphics
	Internet/Web
	Networking
	Operating System
	Reference
	Other
Computers	Desktop
	Dumb Terminal
	Laptop
	Tower
	MAC
	Server

Type	Subtype
Display Devices	Monitor Projector
Examples	Template of common device fields. Can use it to create a new device type.
Furnishings	Artwork Armoire Bookcase Chair Computer Desk Desk Collection File Cabinet Meeting Table
Hand Held Devices	PDA Cell Phone Pager Blackberry Device GPS Device
Mainframes	Controller Host CPU FEP NCP LPAR
Network Components	Router Hub Switch Modem Network Interface Card Gateway Firewall

Type	Subtype
Office Electronics	Copy Machine
	Printer
	Fax Machine
	Paper Shredder
	Camera
	Speaker
	Calculator
	Multifunction
	Word Processor
	Typewriter
	VCR
	Television
	UPS
Software Licenses	DBMS License
	Development Tool License
	Enterprise Management License
	Operating System License
	Outlook
	Productivity Tools License
	Project Management License
	Utility Software License
Storage	CDRW
	Direct Attached Storage (DAS)
	HDD
	Network Attached Storage (NAS)
	Storage Area Network (SAN)
	ZIP
	CD Burner
Telecommunications	Desk Phone
	Flush Wall Mount
	Headsets and Accessories
	NBX
	PBX
	Paging Solution
	Surface Mount

Device file

A ServiceCenter file that contains all asset records. It contains the unique name of the asset and the pointers to other files. The device file stores data common to all device types.

Example**: serial.no** and **vendor** are common fields for both the server and modem device types.

Attribute file

A supporting file within Inventory Management that holds data specific to an asset, based on its device type. If an attribute file exists for a device type, then each asset record for that device type has a corresponding attribute record in the device type's attribute file.

Example: A storage device type has an attribute file named storage and contains fields that are specific to a storage asset, such as storage.type. A software license device type has an attribute file named softwarelicense and contains fields that are specific to a software license asset, such as product.pool.

Join file

When you access a record for a specific asset, Inventory Management displays the record taking information from both the **device** and the attribute file for the specified device type. In the same manner, when any changes are made to the data, the changes are written to the corresponding records in the **device** and attribute files. A join file facilitates this process.

Example: A server device type has a join file named **deviceserver** and contains fields that are a combination of the **device** file and the relevant attribute file, such as **serial.no** and **vendor** from the **device** file and **printer.queues** from the **server** file.

The information you see on the form that displays the asset record information is the result of the device, attribute, and join files working together.

Accessing the Asset Information Form

Authorized users can directly access asset records. The Asset Information form (Figure 7-1 on page 264) allows you to:

- Search for and update existing asset records.
- Begin the process of creating new records.

You typically access asset records from your asset queue. You can modify what you see in the asset queue by selecting a different inbox.

To access the Asset Information form via your asset queue:

1. Click **Inventory Management** in your Home menu.
2. Click **Asset Queue** on the Assets tab.

   The asset queue displays.
3. Click **New** to create a new asset record.

   -Or-

   Click **Search** to access an existing asset record.

   The Asset Information form displays.

To access the Asset Information form:

1. Click **Inventory Management** in your Home menu.
2. Click **Assets** on the Assets tab.

The Asset Information form displays.

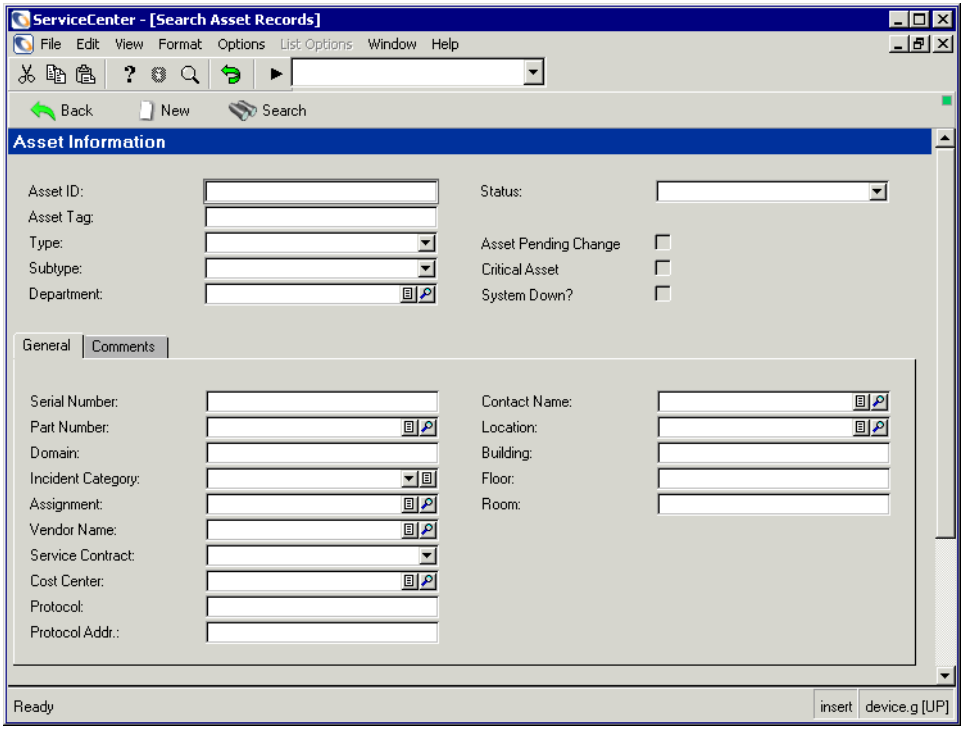


Figure 7-1: Asset Information form

Options Menu on the Asset Information Form

When you first access the Asset Information form, the Options menu contains the following options:

Menu Item	Description
Restore	Returns the fields in the form to the previous values.
Clear	Clears the data entered in the asset form.
Advanced Search	Displays a dialog box in which you can enter advanced search parameters. This option can also be used to store a query.
Search Specific Type	Allows you to search the joined attribute and asset files for an asset record.
Open Inbox	Opens an existing inbox for Inventory Management.

Fields on the Asset Information Form

Each type of inventory record contains general fields for information that applies to all asset records. Other fields are used to supply information that is specific to a device type.

Some fields in other ServiceCenter applications, such as Incident Management, are populated with values that are specified in inventory records. For example, data from the **Incident Category** field on an inventory record is populated in the **Category** field when an incident ticket is opened for an asset.

You can enter data in these fields to search for specific records. Searches are discussed on page 267.

Fill locates information in another record and copies it into the current record. Select the data you want to enter in the field by double-clicking the desired entry.

The following describes the fields in the header area of the Asset Information form and talks about the tabs within the Inventory Management record.

Fields in the Header Area

Field	Description
Asset ID	Unique identifier for each asset.
Asset Tag	Name assigned to the asset.
Type	Device type categorizing this asset.
Subtype	A more specific classification for the asset.
Department	Department to which this asset is assigned.
Status	Indicates whether or not the asset is currently installed.
Asset Pending Change	Flags an asset record to indicate a change ticket exists against the asset.
Critical Asset	Determines the priority of an incident ticket should one be opened against this asset.
System Down?	Identifies if the asset is currently down.

General tab

Field	Description
Serial Number	Manufacturer's serial number for the asset.
Part Number	Company's identification no. for the asset.
Domain	Internet domain in which the asset resides, such as *company.com*.
Incident Category	Category the asset is placed in when an incident ticket is opened for that asset. See Chapter 4 for more information on incident tickets and incident categories.
Assignment	Group assigned to handle a particular type of ticket based on the type of asset.
Vendor Name	Vendor who is contacted for service on the asset.
Service Contract	Service contract covering the asset
Cost Center	The company entity paying for the asset.

Field	Description
Protocol	The agreed-upon format for transmitting data between two devices. The protocol determines the following: ■ The type of error checking to be used ■ Data compression method, if any ■ How the sending device will indicate that it has finished sending a message ■ How the receiving device will indicate that it has received a message
Protocol Address	A numerical address used to locate device on a network, an intranet or the Internet.
Contact Name	Name of the user of the asset.
Location	Physical location of the asset.
Building	Building in which the asset is located.
Floor	Floor on which the asset is located.
Room	Room in which the asset is located.

Comments tab

Field	Description
Brief Description	One-line description of any comments.
Comments	Free-form text area to document any information about the asset.

Searching Inventory Management

You can search for a specific asset record or a set of asset records. For example, if you enter **ACME** in the **Asset** field and click **Search**, a QBE list of ACME records displays. If you enter a partial name, such as **pc**, and click **Search**, a QBE Record list displays the assets with an asset ID starting with **pc**, and the first record in the list displays in the asset form.

If you leave all fields blank, click **Search** to perform a *true* query without entering any values in the asset form. A QBE Record list is returned containing all the records for that area of Inventory Management. For example, leaving all the fields blank in the asset form returns a QBE Record list of all assets in the database.

To search Inventory Management:

1 From the Asset Information form, enter the information you know in the appropriate fields.

Note: You can leave any or all fields blank. For fastest searching, use the fields identified as key (indexed) fields at your site. If these are not clearly identified on the form, ask your ServiceCenter administrator for a list of key fields.

2 Click **Search**, or press **F6**.

3 If multiple records match the search, the QBE Record list displays these records with the first record in the list displayed in the asset form.

4 Select the asset record you want to access.

Joined Queries

Joined queries allow you to search a specific device type using the search form for that device type.

To create a joined query:

1 Access the Asset Information form.

2 Choose **Options>Search Specific Type**.

The **Select Device Type to Search** wizard displays.

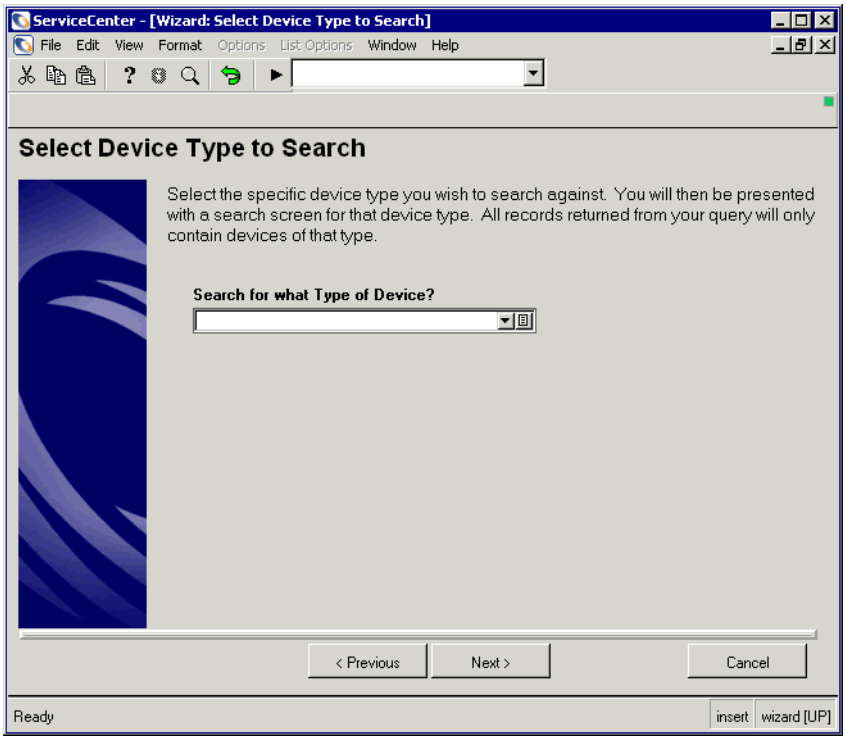


Figure 7-2: Select Device Type to Search wizard

3 Choose the type of device for which you want to search from the **Search for what Type of Device?** drop-down list, and click **Next**.

For example, choose Computer.

The search form for that device type is displayed.

4 To make your search more specific, optionally enter additional information about the asset for which you are searching.

For example, if you know the PC for which you are searching has a logical name of BobPC, enter this name in the **Asset ID** field.

5 Click **Next**.

The asset record(s) displays.

Creating New Asset Records

You can begin creating an asset record on the Asset Information form. However, it is not until you have specified the asset that you get access to all the tabs and fields relevant to a specific device type and subtype.

There are two ways to access the New Asset form to create a an asset record:

- Selecting a device type using the Add New Asset wizard.
- Prepopulating data on the Asset Information form before clicking the **New** button.

Note: Prepopulating data on the Asset Information form allows you to bypass the wizard as long as the device type is defined.

To create an asset record using the Add New Asset wizard:

1 Click **New**, or press **F1**, on the Asset Information form.

The Add New Asset wizard displays.

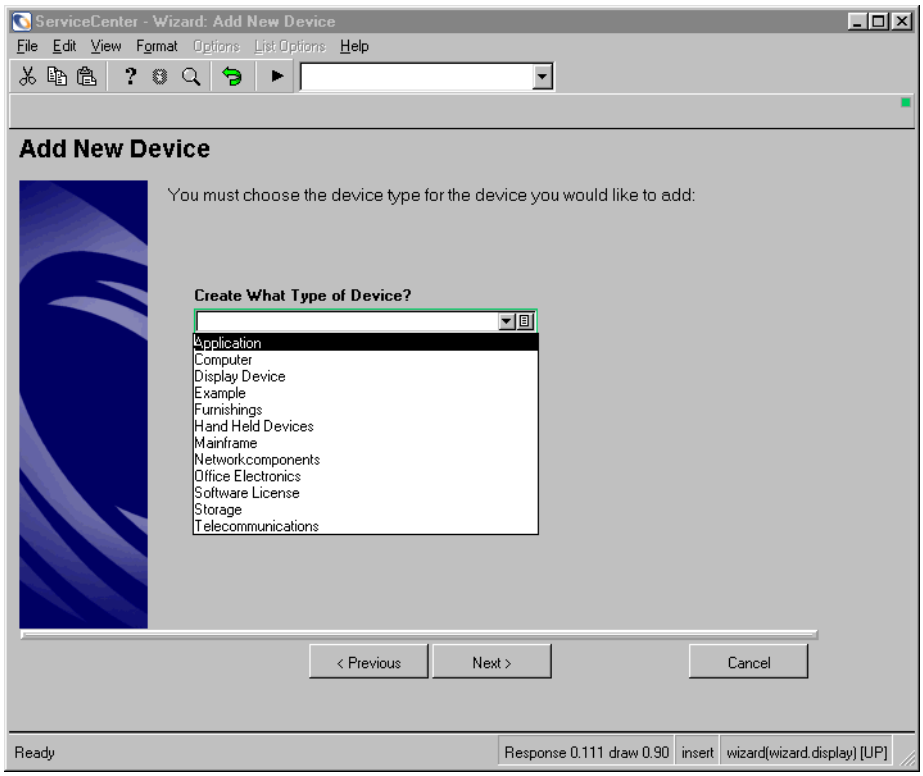


Figure 7-3: Add New Asset Wizard

2 Choose the device type from the **Create what type of asset?** field drop-down list.

3 Click **Next**.

In this example you see the Computer New Asset form.

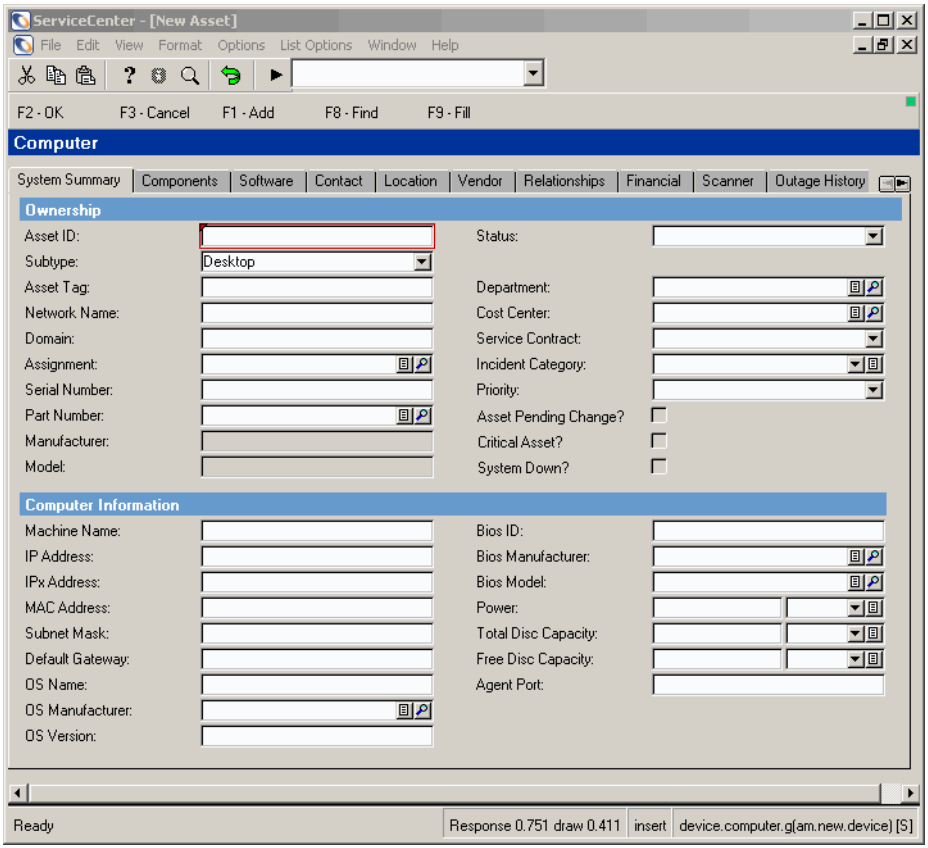


Figure 7-4: Computer New Asset form

4 Populate the fields of the different tabs according to your needs.

5 Click **Save** or **Add**, or press **F4**, to save the record and leave it displayed.

A message displays in the status bar: *Asset record added*.

To create an asset record by prepopulating data on the Asset Information form:

1 Access the Asset Information form.

2 Populate the fields with the information you know about the asset record you are creating. Be sure to enter a device type in the **Type** field.

Note: If you prepopulate fields on this form, but *do not* enter a device type in the **Type** field, when you click **New**, the system takes you to the Add New Asset wizard.

3 Click **New**.

The Asset Type form displays.

Common Fields and Tabs on the New Asset Form

There are several tabs and fields on the New Asset form that document general information which applies to all assets, regardless of type or subtype.

Note: The type and number of tabs differ between the various component forms. For example, a hub form does not contain a Software tab, while a PC form contains a Software tab listing the various software installed on a PC.

In an asset record, the **Fill** function is available for the **Part No.** field. If you clear the field and select another part number, the related information, including serial number and manufacturer, is automatically entered.

System Summary tab: Ownership Information

The Ownership Information fields are standard across all device types and subtypes. If you used the Asset Information form to begin adding an asset to inventory, some of the following fields are prepopulated.

Note: Depending on the asset, there may be additional fields on the System Summary tab to complete. For example, when entering an asset with a Type of computer, the Summary tab also includes fields to enter information specific to computers, such as operating system, bios, power keyboard, total memory, and available memory data.

Field	Description
Asset ID	Unique identifier for each asset. It is a required field.
Subtype	A more specific classification for the asset.
Asset Tag	Name assigned to the asset.
Network Name	Network to which the asset is connected.
Domain	Internet domain in which the asset resides, such as *company.com*.
Assignment	Group assigned to handle a particular type of ticket based on the type of asset.
Serial Number	Manufacturer's serial number for the asset.
Part Number	Company's identification number for the asset. In an asset record, the **Fill** function is available for the part number (**Part Number.**) field. If you clear the field and select another part number, the related information, including model and manufacturer, automatically displays.
Manufacturer	The company who manufactured the asset. Data in this field is read-only since it displays based on the Part Number you enter.
Model	Manufacturer's model number for the asset. Data in this field is read-only since it displays based on the Part Number you enter.

Field	Description
Status	Availability of the asset. This field is only displayed in existing records. **Installed**—asset is in place and operational. **Available**—asset can be used, but is not currently installed; for example, the asset is unpacked and is stored in a stock room. **Warehouse**—asset is still packed in its box, stored in a warehouse. **Transfer**—asset is being moved between locations. **RMA**—asset is being returned to the manufacturer or vendor for repairs or replacement. **Replaced**—asset has been replaced. **Reserved**—asset is being reserved for future use. **Retired**—asset is obsolete and has been removed from service.
Department	Name of the department where this asset resides.
Cost Center	The company entity paying for the asset.
Service Contract	Vendor with whom there is a service contract for the asset.
Incident Category	Category the asset is placed in when an incident ticket is opened for that asset. See *Incident Management, Chapter 6* for more information on incident tickets and incident categories.
Priority	One of the parameters used to determine which SLA is used when a ticket is opened against an asset.
Asset Pending Change?	Flags an asset record to indicate a change ticket exists against the asset.
Critical Asset?	Determines the priority of an incident ticket should one be opened against this asset.
System Down?	Indicates if the asset is down.

Contact tab

The Contact tab is linked to the contacts file to provide the contact information for this asset. You can add or change the contact information on the record by clicking **Fill** in the **Contact Name** field. The remaining information is filled in automatically from the contacts record.

Location tab

The Location tab is linked to the location file to provide the location information for this asset, such as location, building, floor, and room. You can:

- View location information on the record by clicking **Find** in the **Location** field.
- Change the location information on the record by clicking **Fill** in the **Location** field.

The remaining information is populated automatically from the location record. The location file is discussed in the *System Administrator's Guide*.

Site Category

You can also designate the site category with one of the following in the **Site Category** field:

- Critical Site—large site location that justifies on-site support resources. and typically requires extended support hours.
- Major Site—medium-sized site location that justifies support resources of field-based technicians.
- Satellite Site—small location supported by field-based or visiting technicians.
- Home Site—home location of remote or field-based user who is supported by field-based or visiting technicians.

There is also a free-form text area that allows you to document any additional information about the asset location.

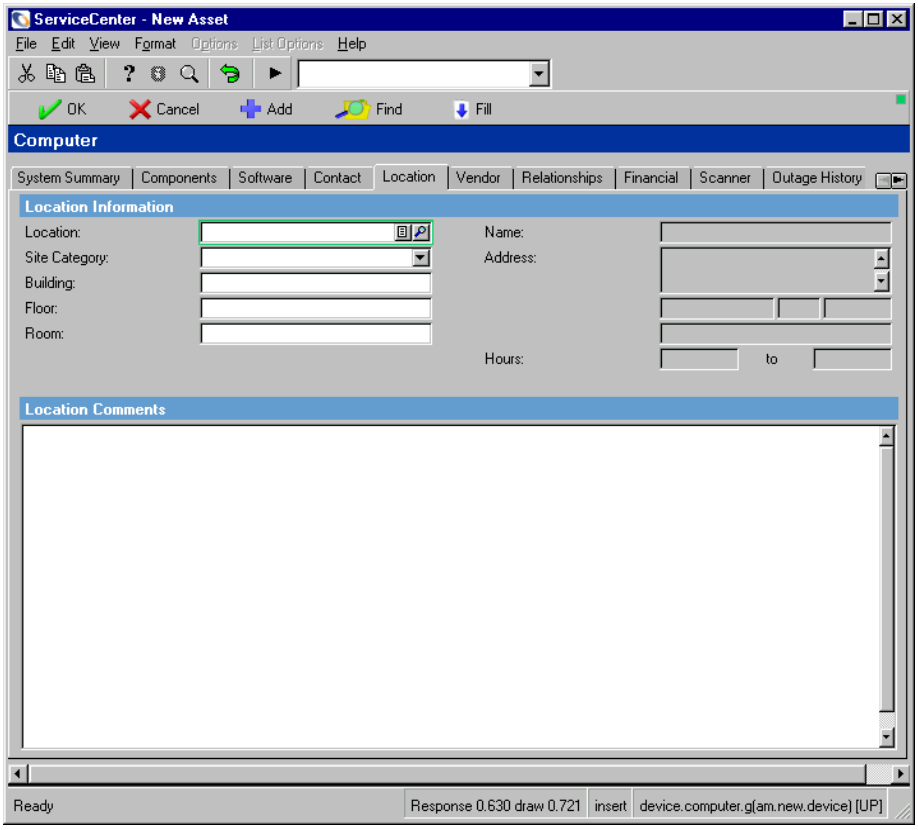


Figure 7-5: Asset Record, Location tab

Vendor tab

The Vendor tab is linked to the **vendor** file to provide the vendor information for this service. It provides standard information about the vendor from whom you acquired the asset, including name, address, sales representative name and number, contact name and number for support, hours support is available and any information about the vendor's escalation policy.

You can add or change the vendor information on the record by clicking **Fill** in the **Vendor Name** field. The remaining information is filled in automatically from the vendor's record. The **vendor** file is discussed in the *System Administrator's Guide*.

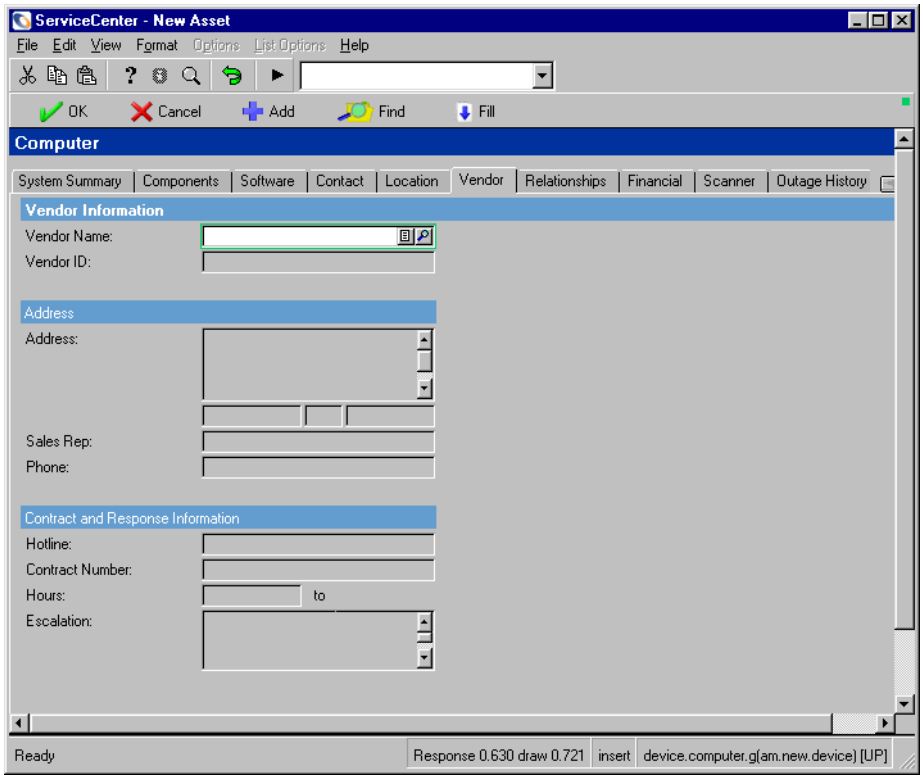


Figure 7-6: Device Record, Vendor tab

Relationships tab

The Relationships tab provides data about related assets, both upstream (parent assets) and downstream (children assets).

Parent / child relationships

ServiceCenter uses parent / child relationships to organize inventory records. These relationships are based on how the assets are connected either physically or logically through a network.

A parent asset can have a single child or multiple children. A child asset can also have children making that asset both a parent and a child.

Viewing parent / child relationships allows an organization to identify the scope of the assets impacted by an incident. For example, if an incident ticket is opened regarding an exchange server being down, the helpdesk administrator can view the parent / child relationships and identify the affected PCs. This allows the helpdesk administrator to proactively notify the users of those PCs.

The following figure shows two relationships for a PC in the asset record. This PC has two parent assets. The relationship to the hub is *physical* because the PC is directly attached to the hub through a network segment.

The parent relationship with the server is *logical* because the PC is not directly attached to the server, but is attached through the network.

If we were looking at either the asset record for the hub or the server, this PC would be listed as a child of these assets.

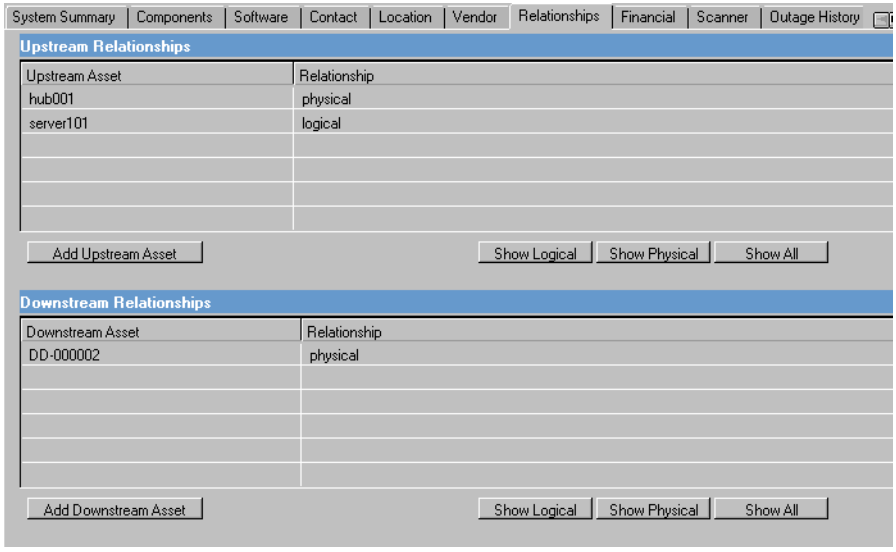


Figure 7-7: Asset Record, Relationships tab

Financial tab

Contracts subtab

If there are any contracts associated with this asset, contract information displays.

To view the details for a specific contract in the list, double-click the desired contract to get contract details.

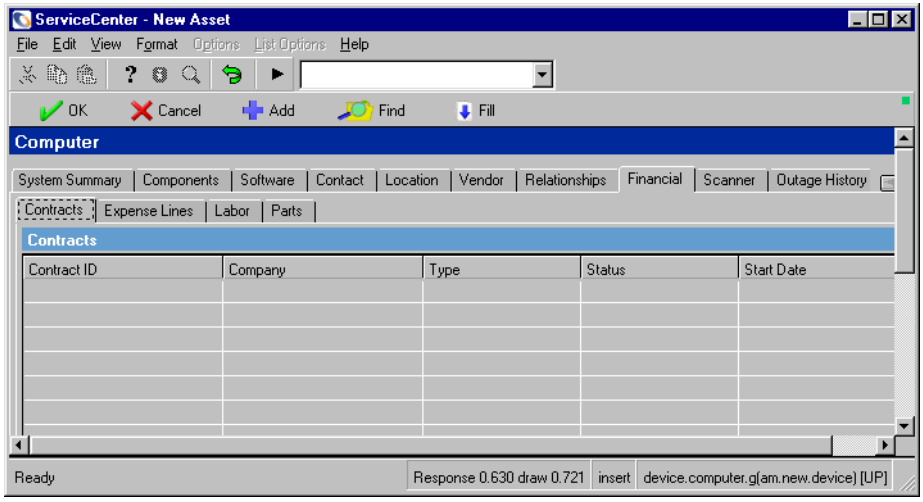


Figure 7-8: Asset Record, Financial tab, Contracts subtab

For more detailed information about these fields see the section, *Fields on the New Contract Form* on page 307.

Field	Description
Contract ID	A unique identifier that specifies the contract number.
Company	The company the contract is with.
Type	■ Lease—enables you to define general leasing conditions. ■ Maintenance—enables you to define a maintenance contract. ■ Software—allows you to define software license agreements. ■ Support—allows you to define asset support. ■ Warranty—allows you to track warranty data about your asset.

Field	Description
Status	This field reflects the existing status of the contract. The **Status** field is a read-only field and is dependent on the start date and expiration date of the contract. ■ Draft ■ Current ■ Cancelled ■ Renewed
Start Date	The commencement date of the contract term. The start date of a contract must occur before the expiration date.
Expiration Date	The date on which the contract term ends. This date determines whether or not the status of a contract becomes "expired" or "renewed" depending on the renewal conditions set in the contract.

Expense Lines subtab

The Expense Line subtab is an itemized accounting of expenses, such as labor and parts, incurred for the asset.

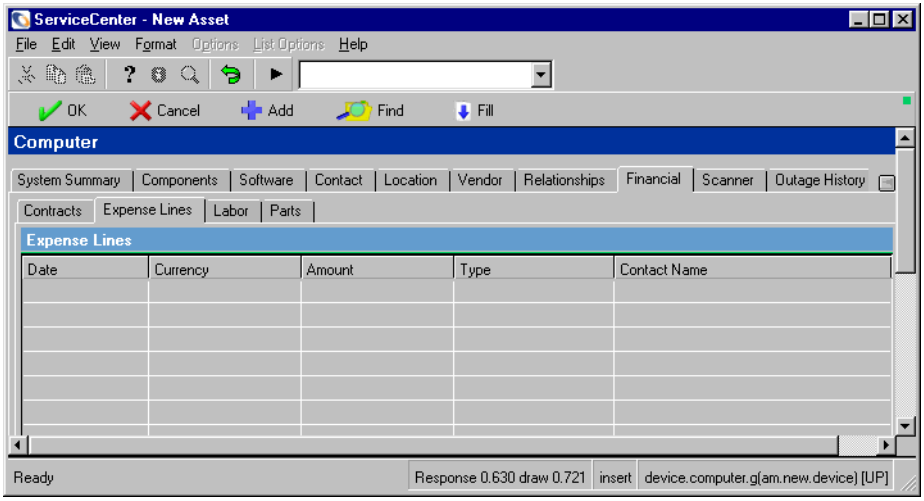


Figure 7-9: Asset Record, Financial tab, Expense Lines subtab

Field	Description
Date	Date the expense was created.
Currency	The currency of the contract.
Amount	The amount spent by the provider.
Type	The type of expenditure involved, such as labor, parts, handling, and outage.
Contact Name	The name of the individual who can provide additional information about the expense.

Labor subtab

The Labor subtab documents information about any labor efforts expended on an asset.

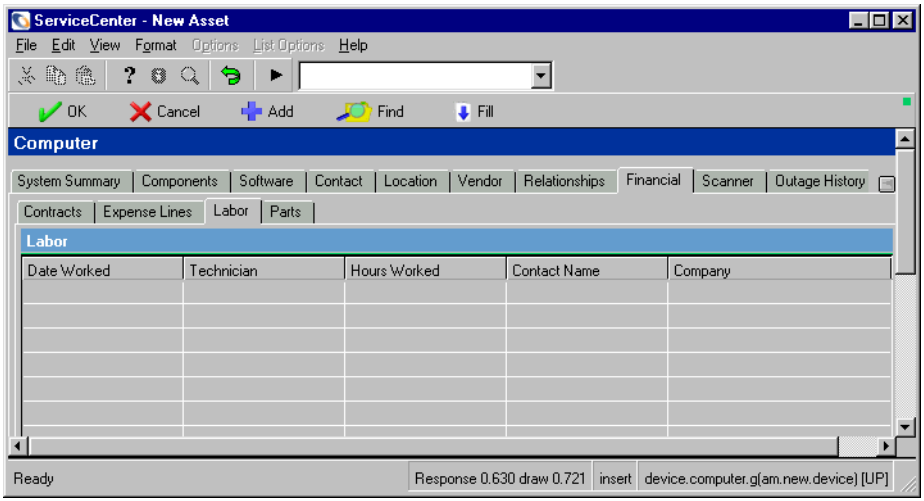


Figure 7-10: Asset Record, Financial tab, Labor subtab

Field	Description
Date Worked	Date work was performed on the asset.
Technician	The individual who serviced the asset.
Hours Worked	The amount of time the technician worked on the asset.

Field	Description
Contact Name	The name of the individual at the company who provided the labor.
Company	The name company who provided the labor.

Parts subtab

The Parts subtab displays data about any parts used on the asset.

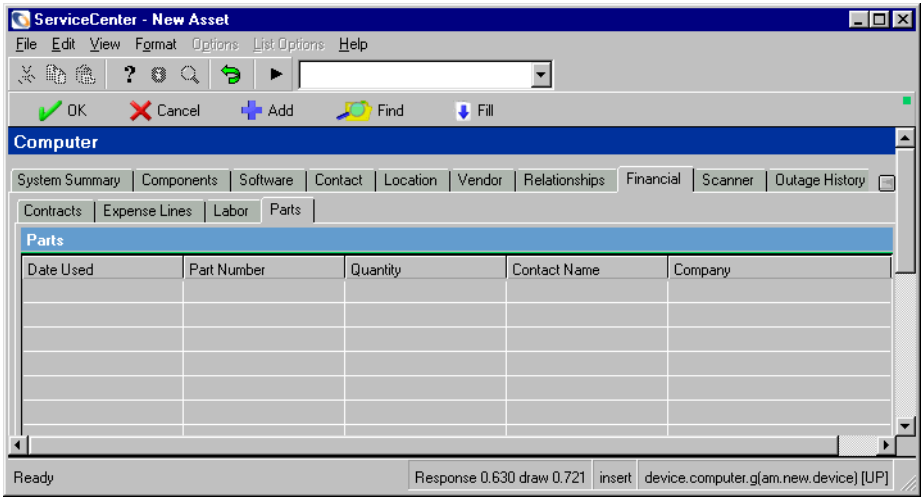


Figure 7-11: Asset Record, Financial tab, Parts subtab

Field	Description
Date Used	The date the parts were used.
Part Number	Company's identification number for a part.
Quantity	The date the parts were used.
Contact Name	The name of the individual at the company who supplied the parts.
Company	The name of the company that provided the parts.

Outage History tab

The Outage History tab displays the start and end times when this asset was out of service.

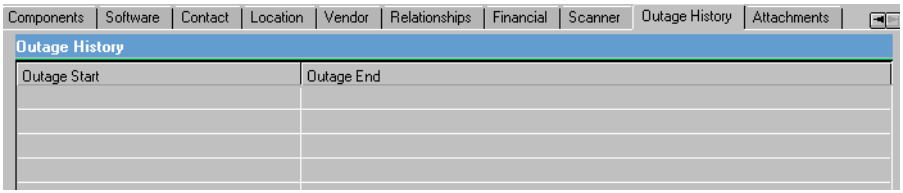


Figure 7-12: Asset Record, Outage History tab

Attachments tab

The Attachments tab (Windows- and Java-based clients only) provides a blank field in which you can attach files from other applications (for example, a Microsoft Excel spreadsheet or a picture) that have information about the asset.

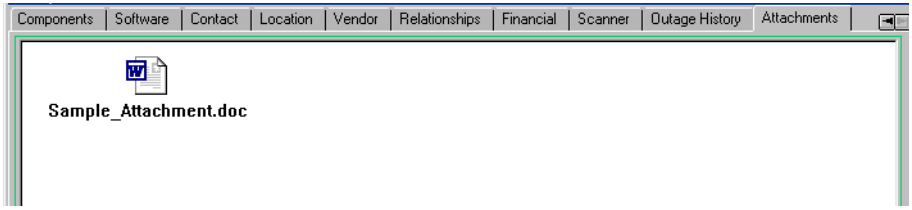


Figure 7-13: Asset Record, Attachments tab

Unique Fields on the New Asset Form based on the Type and Subtype

Some of the tabs, subtabs, and fields on the Asset Type form are specific to the device subtype. For example, if you are adding an asset with a device type of **Computer** and a subtype of **Laptop**, the New Asset form appears as follows:

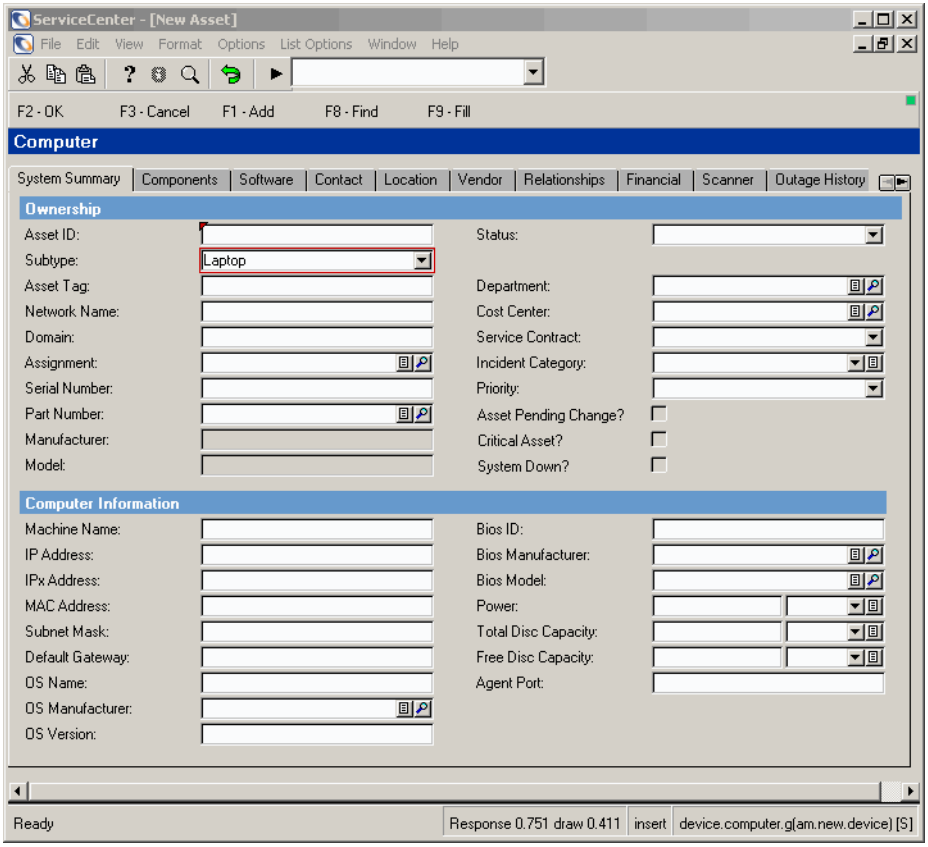


Figure 7-14: New Asset form with Type—Computer and Subtype—Laptop

Notice that the System Summary tab includes fields specific to computers, such as IP address, operating system, bios, and disk capacity.

If you look at the New Asset Information form for Display Device device type and Monitor subtype, the form includes a Monitor tab to document information specific to monitors, such as size, viewable area, resolution and pitch.

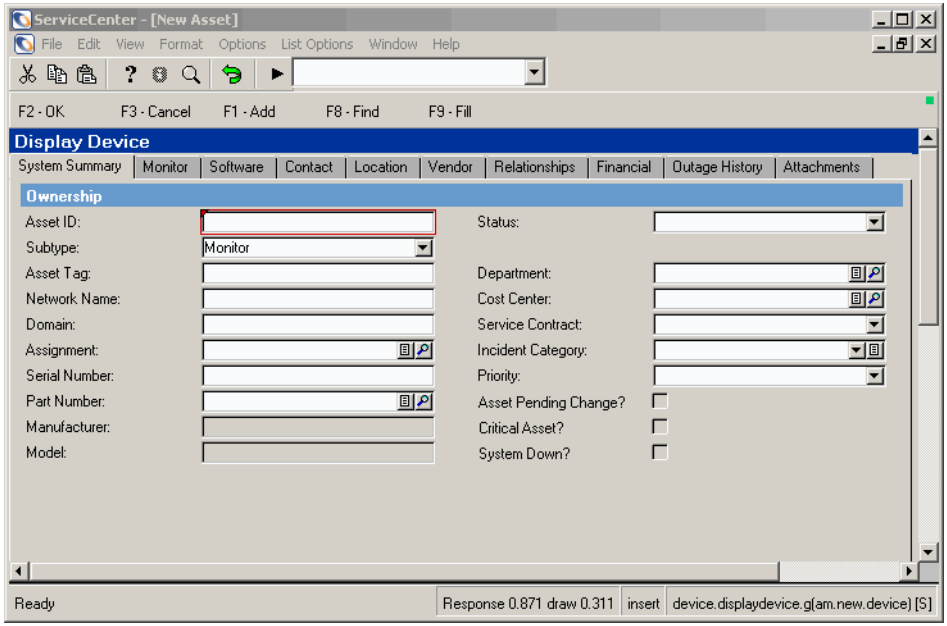


Figure 7-15: New Asset form with Type—Display Devices and Subtype—Monitor

Subtypes of the Hand Held Devices, Display Device, Mainframe, Network Components, and Office Electronics types have unique tabs and fields specific to their subtype.

Sample Scenario

To create an asset record with a type of Display Device and a subtype of Monitor:

1. Click **Inventory Management** in the Services tab of your Home menu.
2. Click the Assets tab.
3. Click **Assets**. The Asset Information form displays.
4. Choose Display Device from the **Type** field drop-down list.
5. Choose Monitor from the **Subtype** field drop-down list.
6. Click **New**. Notice that the **Subtype** field is prepopulated with Monitor.
7. Complete the following field on the System Summary tab:
   - Asset ID: ACMEVIEW261
   - Assignment: Onsite Support
   - Part Number:
   - Status: Available
   - Department: Customer Support
   - Cost Center: Operations
   - Service Contract: ACME US
   - Incident Category: client system
   - Priority: 3
8. Complete the following fields on the Monitor tab:
   - Size: 21"
   - Viewable Area: 19"
   - Resolution: 1280X1024
   - Pitch: 800dpi
   - Horizontal Frequency: 75 z
   - Vertical Frequency: 75 z
   - Plug and Play: True
9. Save the new record as follows:
   a. Click **Add**, or press **F1**, to save the record and leave it displayed.
   b. Click **OK**, or press **F2** to save the record and return to the Asset Information form.

   A message displays in the status bar: *Asset record added*.

Updating Asset Records

This section explains how to update and how to change the device type of a specific asset record or a list of asset records. Options and List Options menu items are also described in this section.

To update an asset record(s):

1 Search for the record you want to update. Refer to *Accessing the Asset Information Form* on page 263.

- In the search form, enter the name of the asset, if known, in the **Asset ID** field.
- If you do not know the name of the asset, enter any information you know in the appropriate fields. This narrows the search parameters.

Note: You can leave all fields blank for the search. If you do, a list of *all* asset records displays.

2 Click **Search**, or press **F6** or **Enter**.

- If enough specific data is entered in the fields, a single record displays in the Asset Type form.
- If no data is entered in any of the fields, or multiple fields meet the search criteria, a QBE Record list displays. Select the desired record.

  The selected record displays in the Asset Type form.

3 Modify any fields that need revision.

4 Save the updated record.

- Click **Save**, or press **F4**, to save the record and leave it displayed.
- Click OK, or press **F2**, to save the record and return to the blank asset form.

To change the device type of an asset record(s) using the Change Device Type wizard:

1 Access the Asset Information form.

2 Search for an individual record or list of records for which you want to change the device type. (For details, see *Searching Inventory Management* on page 267.)

3 To make your search more specific, optionally enter additional information about the asset for which you are searching.

For example, if you know the PC for which you are searching has a logical name of `BobPC`, enter this name in the **Asset ID** field.

4 Click **Search**.

A specific asset record or a QBE list of asset records displays, depending on how specific your search was in step 2 and/or step 3.

5 From the **Options** menu, choose **Change Device Type**.

The **Change Device Type** wizard displays.

6 Do one of the following:

- For a specific asset record:
  - From the **New Device Type** drop-down list, choose the new device type you want for the device, and click **Next**.
  - From the **Subtype** drop-down list, optionally choose a subtype for the device, and click **Next**.

The **Change Device Type Status of Attribute Files** dialog displays confirming current and new attribute file device types.

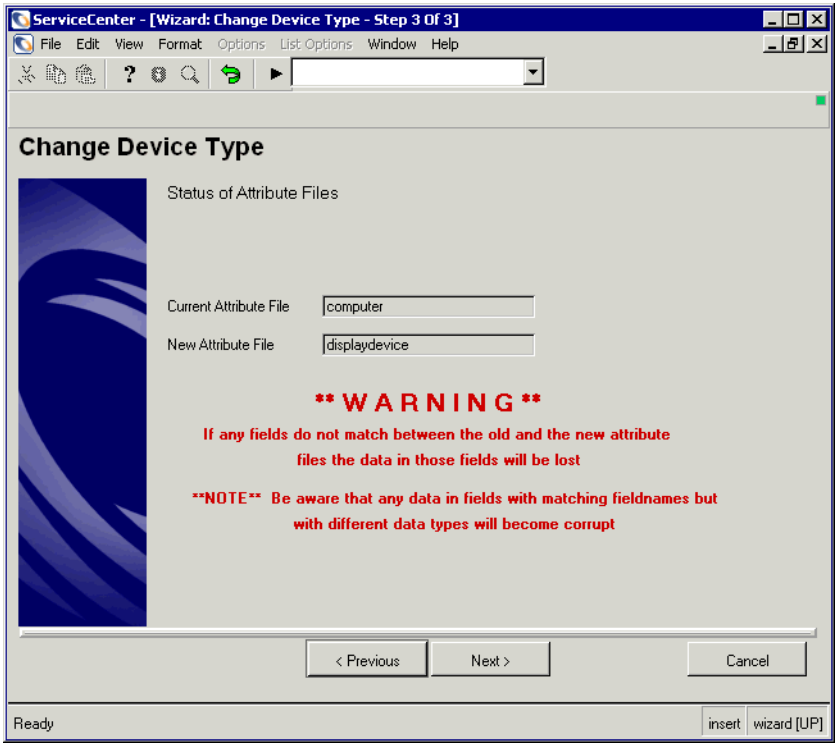


Figure 7-16: Specific Asset Change Device Type form

- For a QBE list of asset records:
  - From the **New Device Type** drop-down list, choose the new device type you want for the list of devices, and click **Next**.
  - From the **Subtype** drop-down list, optionally choose a subtype for the list of devices, and click **Next**.

The **Change Device Type Status of Attribute Files** dialog displays confirming the new attribute file device type.

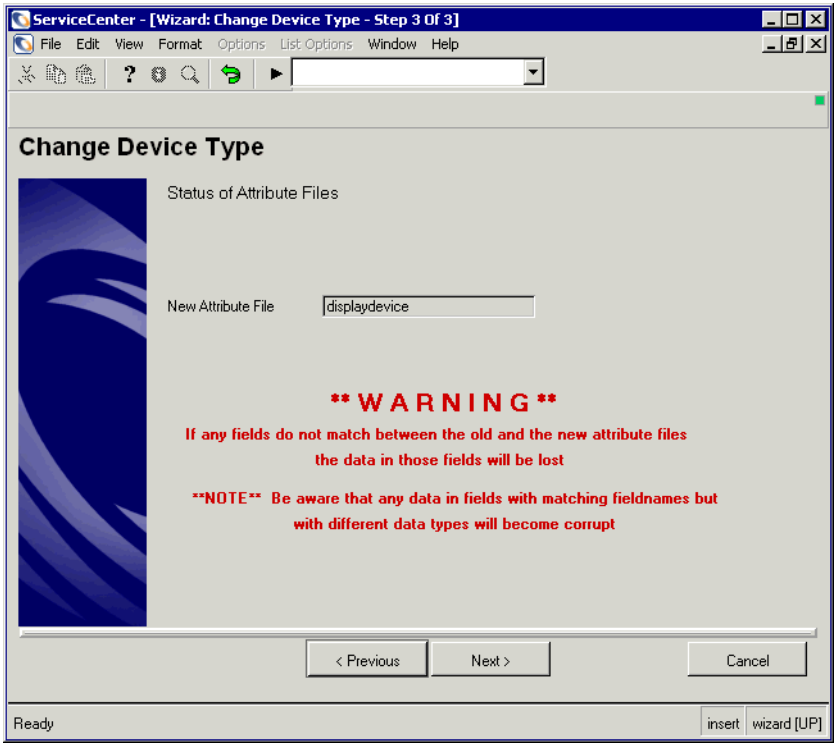


Figure 7-17: QBE List Change Device Type form

7 Click **Next**.

The updated asset record(s) displays with new device type (and subtype, if you selected one) information.

Options Menu Items

Menu Item	Description
Clone	Copies the currently displayed record to create a new record.
Print	Prints the information in the current record to the default ServiceCenter printer.
Change Device Type	Displays a wizard to allow you to change a device type and subtype. If fields don't match between the old and new attribute files, data in the fields of the old file is lost.
Related>Incidents	Open—allows you to open an incident ticket for this asset. View Existing—allows you to view any existing incident tickets against this asset.
Related>Changes	Open—allows you to open a change record for this asset. View Existing—allows you to view any existing change records against this asset.
Related>Quotes	Open—allows you to open a request for this asset. View Existing—allows you to view any existing requests for this asset.
Find Solutions	Accesses the ServiceCenter Knowledge Base.
Scheduled Maintenance> Maintenance Tasks	Selecting this option accesses Scheduled Maintenance and shows any maintenance tasks which are specifically linked to this device. Please note that this shows only those tasks that are specifically bound to this device. Tasks which reference a range on inventory devices (e.g. every server in Topeka) are not accessed in this fashion.
Scheduled Maintenance> Maintenance History	Selecting this option accesses Scheduled Maintenance and lists any incident tickets, change requests, or Request Management quotes that were created as a result of Scheduled Maintenance. From this list, you can access the individual problem tickets, change requests and RM quotes in detail.
Scheduled Maintenance> Generate Recurring>Incidents	Selecting this option generates a Scheduled Maintenance task based on this particular device, creating an Incident ticket. This Scheduled Maintenance task is based on a template Incident ticket and some information from Inventory Management.

Menu Item	Description
Scheduled Maintenance> Generate Recurring>Changes	Selecting this option generates a Scheduled Maintenance task based on this particular device, creating a Change request. This task is based on a template Change request and some information from Inventory Management.
Scheduled Maintenance> Generate Recurring>Requests	Selecting this option generates a Scheduled Maintenance task based on this particular device, creating a Request Management quote. This task is based on a template Request Management quote and some information from Inventory Management.

List Options Menu Items

Note: List options are available only when viewing a QBE list, either in Record List or standalone mode.

Menu Item	Description
Refresh	Updates the QBE Record list.
Modify Columns	Allows you to change the column headings in a QBE Record list.
Export to Excel	Allows you to export the QBE search results 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.
Export to Text File	Allows you to export the QBE search results 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.
Save As Inbox	Allows you to save the search results as an inbox. See Chapter 2 for more information on inboxes.

Viewing or Modifying Software Installation Information

Through Inventory Management, you can view software installation data. You can view and modify software installation data via:

- Asset records
- Software installation records

Asset records

To view software installation data via an asset record:

1. Click **Inventory Management** in the Services tab of your Home menu.
2. Click the Assets tab.
3. Click **Assets**.

   The Asset Information form displays.
4. Type the Asset ID in the **Asset ID** field. For this example, type `JoePC` in the **Asset ID** field.
5. Click **Search**.

   The asset record for JoePC displays.
6. Click the Software tab.

   All the software installed on JoePC displays here.
7. Double-click an install record to see detailed information about it.

Installed Software option on the Inventory Management menu

To view software installation data via the Installed Software option on the Inventory Management menu:

1. Click **Inventory Management** in the Services tab of your Home menu.
2. Click the Assets tab.
3. Click **Installed Software**.
4. Click the Installed Computer System tab.
5. Type the name of the asset, `JoePC`, in the **Installed System** field.
6. Click **Search**.

   The list of applications installed on JoePC displays.
7. Double-click an install record to see detailed information about it.

Fields on the Installed Software Information Form

Application Information tab

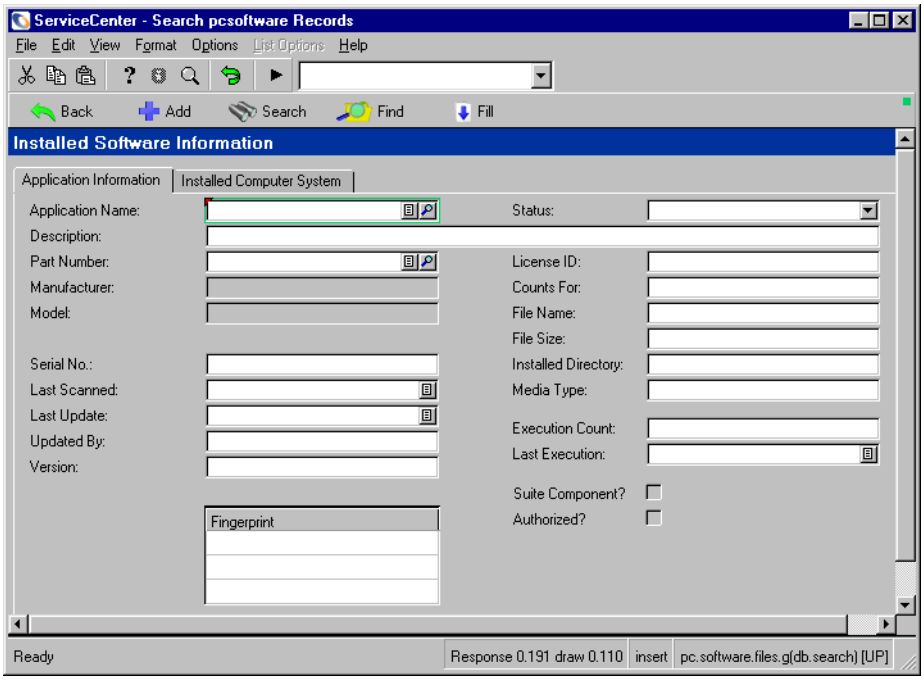


Figure 7-18: Installed Software Information form-Application Information tab

Field	Description
Application Name	Name of the software
Description	A short description of the software.
Part Number	Company's identification number for the asset. In an asset record, the **Fill** function is available for the part number (**Part Number.**) field. If you clear the field and select another part number, the related information, including serial number and manufacturer, automatically displays.
Manufacturer	The company who manufactured the asset. Data in this field is read-only since it displays based on the Part Number you enter.

Field	Description
Model	Manufacturer's model number for the asset. Data in this field is read-only since it displays based on the Part Number you enter.
Serial No.	Manufacturer's serial number for the software.
Last Scanned	Date the software was last scanned by a discovery tool.
Last Update	Date of the last software update.
Updated By	The name of the person who performed the software update.
Version	The number and/or name of the software release.
Status	Availability of the software. Installed Removed Unknown
License ID	Unique identifier of the software license.
Counts For	The number of points a software installation consumes. e.g An office software license credits you 1,000 rights. Each software installation consumes 10 points. The software installation counter enables you to verify that the software has not been installed more than 100 times. The value of this field determines what happens when installations for a single software item are associated with the same workstation or the same user.
File Name	Name of the executable file used to launch the software.
File Size	The size of the executable file.
Installed Directory	The network or hard drive directory where the software is installed.
Media Type	The means by which the software is installed—CD, floppy disk, tape.
Execution Count	Number of times the software has been run.
Last Execution	The date of the last time the software was run.
Suite Component?	Indication that the software is part of an application suite. (e.g. Word is a suite component of Microsoft Office.)
Authorized?	Indication that the software installation on the PC is legal.

Installed Computer System tab

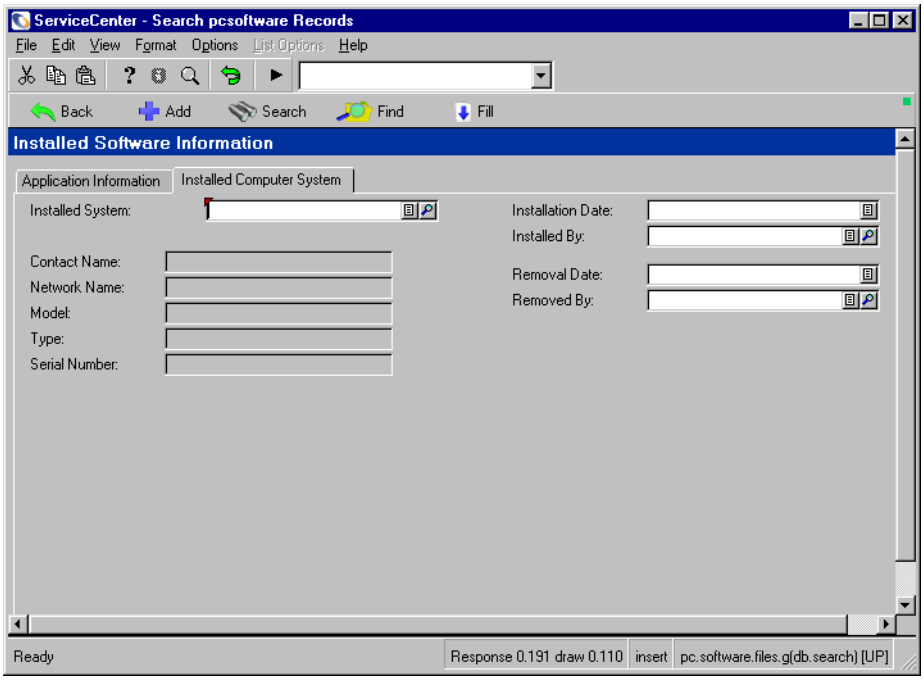


Figure 7-19: Installed Software Information form-Installed Computer System tab

Field	Description
Installed System	Identifies the system on which the software is installed.
Contact Name	Name of individual who uses the computer system. Prepopulated from the asset record of the computer system on which the software is installed.
Network Name	Network to which the computer system is connected. Prepopulated from the asset table.
Model	Manufacturer's model number for the computer system. Prepopulated from the asset record of the computer system on which the software is installed.
Type	Prepopulated from the asset record of the computer system on which the software is installed.
Serial No.	Manufacturer's serial number for the asset. Prepopulated from the asset record of the computer system on which the software is installed.

Field	Description
Installation Date	Date software is installed on the system.
Installed By	Who installed the software.
Removal Date	Date software is uninstalled on the system.
Removed By	Who uninstalled the software.

Viewing Service Level Agreement Information

Through Inventory Management you can view service level agreements related to a particular asset.

To view service level agreement information about a particular asset:

1. Click **Inventory Management** in the Services tab of your Home menu.
2. Click the Assets tab.
3. Click **SLA Information**.

   The SLA Search form displays.
4. Enter the data for the asset for which you want to view any related SLAs. (If you know the Asset ID, type it in the **Affected Hardware** field.)

Scheduled Maintenance and Inventory Management

Scheduled Maintenace is integrated with Inventory Management. Users of Inventory Management can access Maintenance Options in the Inventory Management pull-down menu.

Scheduled Maintenance Items in the Inventory Management Options Menu

To access scheduled maintenance items:

1 Open an existing asset record.

2 Choose **Options>Scheduled Maintenance**.

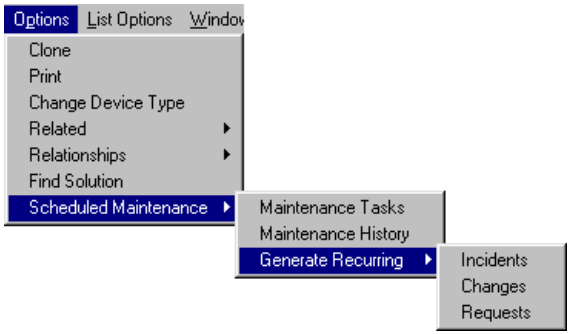


Figure 7-20: Options>Scheduled Maintenance menu

Maintenance History

The Maintenance History function tracks how many incident tickets, change requests, or request management quotes were created when a given maintenance task ran. For maintenance tasks which are designed to create one incident, change, or request, this number is always one. For maintenance tasks that create a collection of incidents, changes, or requests for every record in inventory matching certain parameters, this value may be different every time the task is run. Thus, on May 1, there might be two servers in Topeka, but by June 1, we might have installed a third server. Thus, a task which generates a change for every server in Topeka would generate two changes in May, and three in June.

To check the Maintenance History of an asset:

1 Open the asset record in Inventory Management.

This can be done through the Inventory Management menu, or through Scheduled Maintenance. See the *Scheduled Maintenance chapter* for details.

2 Choose **Options>Scheduled Maintenance>Maintenance History**.

Maintenance Tasks

To check the Maintenance Tasks that have been created for an asset:

1 Open the asset record in Inventory Management.

This can be done through the Inventory Management menu, or through Scheduled Maintenance. See the *ServiceCenter Scheduled Maintenance chapter* for details.

2 Choose **Options>Scheduled Maintenance>Maintenance Tasks**.

Generate Recurring Incident Tickets, Change Requests, or Request Management Quotes from Inventory Management

The Scheduled Maintenance Advanced Query has a built-in anti-spam feature. By default, the system only generates 50 tickets, regardless of how many records the advanced query returns. This is to prevent, for example, an errant user from creating a Scheduled Maintenance task that opens a ticket for every asset in inventory. However, if you want to be able to generate a larger number of tickets, you can increase that number. This threshold is user definable under the administrative options section of the Scheduled Maintenance menu.

To generate recurring Incidents, Changes, or Quotes:

- Follow the instructions given in the chapter, *Scheduled Maintenance*.

  Tasks created in this fashion default to the following Schedule: **Regularly: Every** day (**1 00:00:00**), starting at the current date and time. In all likelihood, this needs to be changed by the user to the recurrence model they actually want.

  For more information on date and time formats, see the *System Administrator's Guide*.

  If the *no template task* is referenced in the Scheduled Maintenance **Administrative Options,** or the template listed does not exist, the system still creates a skeletal Scheduled Maintenance Task.

  Tasks created in this fashion default to an inactive state. Be sure to click the Active box to *true* to begin executing the task.

  To learn more about Inventory Management and Scheduled Maintenance, see the *Scheduled Maintenance chapter*.

Contract Management

This section includes the following topics:

The Contracts tab provides access to Inventory Management functionality that allows you to:

- Create contracts from contract types or user-defined templates.
- Track contract and payment details.
- Add payments for contracts and generate payment schedules.
- Associate contracts to multiple assets.
- Maintain table of standard contract terms and conditions.
- Create contract templates.
- Renew contracts automatically.

Contract Management Terms and Concepts

The Contract Lifecycle

1 Create the contract.

The status of the contract is draft.

Note: You can delete a contract only while it is in draft status.

2 Contract term begins based on the start date entered in ServiceCenter.

The status of the contract changes to current.

3 Contract term ends based on the expiration date entered in the system.

At the end of the contract term, the contract is renewed or expires.

- Renewal

  For a contract to renew automatically, the Auto-Renew flag must be selected prior to the expiration date. At the time of renewal, the system updates the start and expiration dates to reflect the new renewal term of the contract.

  When a contract has been renewed, the status changes to renewed.

- Expiration

  Once a contract reaches its expiration date, the system changes the status to expired if the Auto-Renew flag is not selected. At that time, you can no longer make any modifications to the contract.

  To make changes to an expired contract, you must reopen the contract by choosing **Options>Reopen Contract**. Reopening the contract changes its status to draft and clears the **Signed Date**, **Start Date,** and **Expiration Date** fields.

  If you change your mind about reopening a contract after you have chosen **Options>Reopen Contract**, click **Back**. (If you click another contract record in record list mode, or click **Previous** or **Next**, ServiceCenter automatically saves the reopened contract with a draft status.

Note: You can cancel a contract any time up until it expires. When you cancel a contract, the status of the contract becomes cancelled. (To cancel a contract, choose **Options>Cancel Contract**.)

Contract Types

Contract Management is for companies that have assets under contract. ServiceCenter supports the following contract types:

- Lease—enables you to define general leasing conditions.
- Maintenance—enables you to define a maintenance contract.
- Software—allows you to define software license agreements.
- Support—allows you to define asset support.
- Warranty—allows you to track warranty data about your asset.

Note: In order to use the contract management functionality, your company must be licensed for the Inventory Management application.

Contract Terminology

Lessee

Person or entity that has the right to use property under the terms of a lease.

Lessor

Owner of property, the temporary use of which is transferred to another leasee under the terms of a lease.

Creating Contracts

There are three ways to access the New Contract form to create a contract:

- Selecting a contract type by the way of the Add New Contract wizard.
- Selecting a template by the way of the Add New Contract wizard.
- Prepopulating data on the General Contract Information form before clicking **New**.

Note: Prepopulating data on the initial form allows you to bypass the wizard as long as the contract type is defined.

Creating a Contract By Contract Type

To create a contract using a contract type:

1. Click **Inventory Management** in the Services tab of your Home menu.
2. Click the Contracts tab.
3. Click **Contracts**.

   The General Contract Information form displays.
4. Click **New**.

   The Add New Contract wizard displays.
5. Click **Create what type of contract?** option.

6 Choose the contract type from the **Create what type of contract?** field drop-down list.

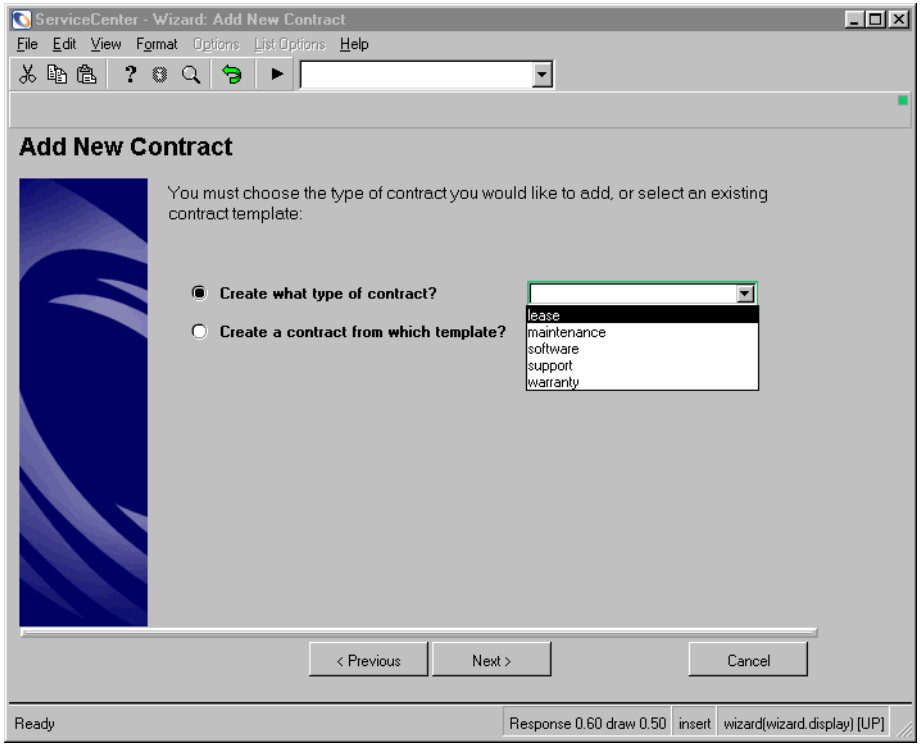


Figure 7-21: Add New Contract Wizard

7 Click **Next**. The Lease Contract Information form displays.

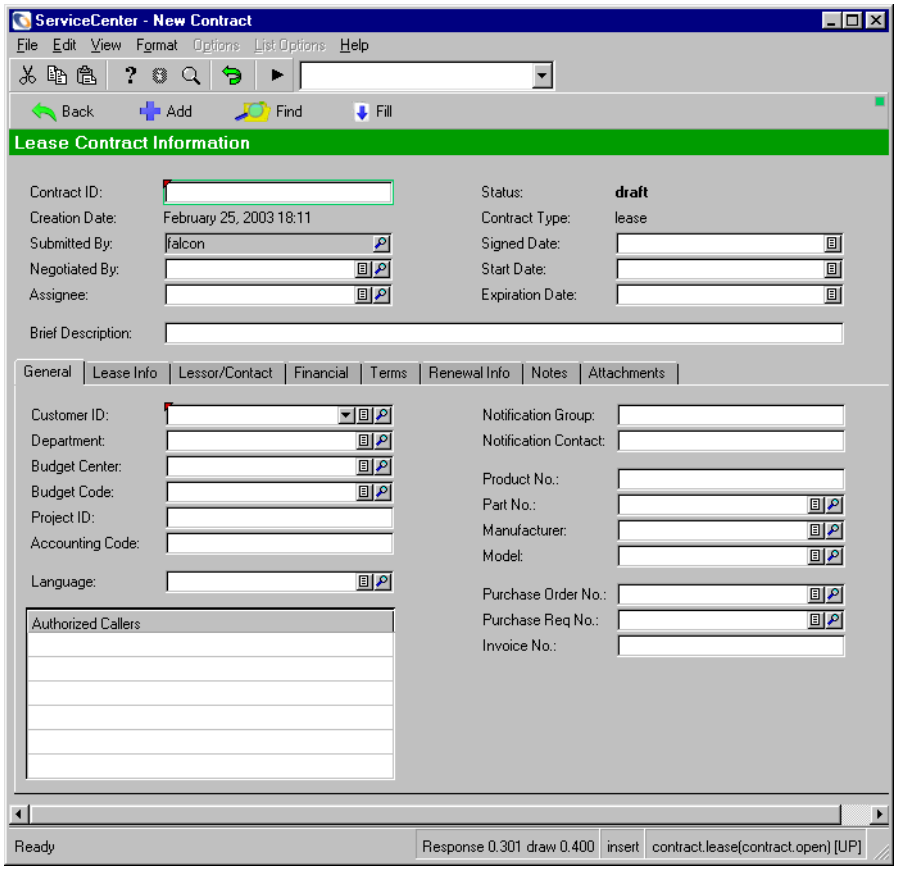


Figure 7-22: Lease Contract Information form

In this example you see the Lease Contract Information form.

8 Populate the fields of the different tabs according to your needs.

Fields on the New Contract Form

Each contract record contains fields of general information that apply to all contract types.

Field	Description
Contract ID	Each contract is identified by its unique Contract ID. The **Contract ID** field is mandatory. If you modify the **Contract ID** field after the contract has been added, the **Contract ID** field is updated on any associated asset records. Any pending payments for the contract are modified as well.
Creation Date	This is the system date and time when the contract was added to the system. This is a read-only field and is for informational purposes only.
Submitted By	This field contains the SC operator id of the user who added the contract to the system. This is a read-only field and is for informational purposes only.
Negotiated By	The name of the individual who is in charge of negotiating the terms and conditions of the contract. This field is optional and is for informational purposes only.
Assignee	This field contains the ServiceCenter operator id of the user to whom the contract has been assigned. This field is optional and is for informational purposes only. Note: This field will serve a function when approvals and notifications are implemented in a future release. At that time data entered in the **Assignee** field is validated against the *operator* table. The Assignee has to be someone who has a valid ServiceCenter operator id.

Field	Description
Status	This field reflects the existing status of the contract. The **Status** field is a read-only field and is dependent on the start date and expiration date of the contract. The system populates this field with the appropriate status depending on those dates. There are five status conditions: ■ **Draft**—A contract is in draft status when the contract term has not yet begun (e.g. the start date is in the future). The initial state of any contract is draft when first added to the system. ■ **Current**—Once a contract term has begun, the system changes the status of the contract to current. ■ **Expired**—When the expiration date has passed, the system changes the status of the contract to expired. ■ **Cancelled**—If at any time a user cancels the contract, the status reverts to cancelled. ■ **Renewed**—If the Auto-Renew flag for the contract is set to true, when the contract reaches its expiration date, the system sets the status of the contract to renewed.
Contract Type	■ Lease ■ Maintenance ■ Software ■ Support ■ Warranty
Signed Date	The date when the contract was signed. If populated, this date must occur before the contract start date. This field is optional and is for informational purposes only.
Start Date	The commencement date of the contract term. The start date of a contract must occur before the expiration date. This is a mandatory field whenever the contract is not in draft status (e.g. the field becomes mandatory after the status of a contract is current or renewed). This field must be populated in order for the contract term to begin.

Field	Description
Expiration Date	The date on which the contract term ends. This date determines whether or not the status of a contract becomes expired or renewed depending on the renewal conditions set in the contract. This is a mandatory field whenever the contract is not in draft status (e.g. the field becomes mandatory after the contract term has started).
Brief Description	A short one-line description of the contract. This field is intended to supplement a more detailed description that would be entered into the **Notes** field on the Notes tab. It is optional and is for informational purposes only.

General tab

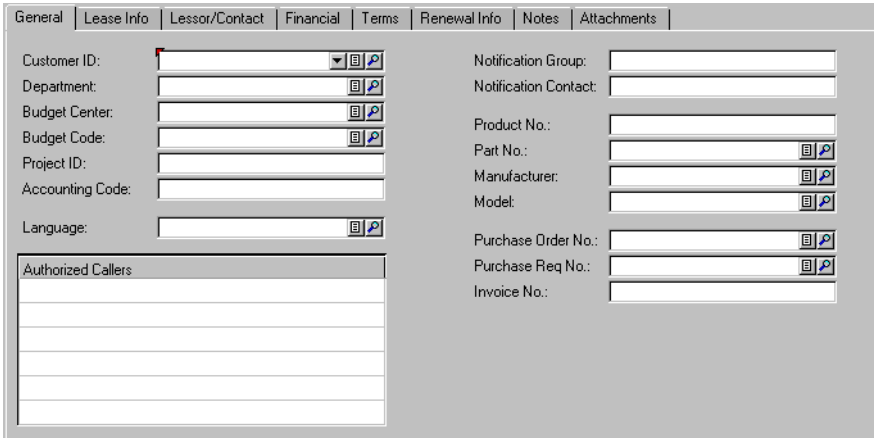


Figure 7-23: General tab

Field	Description
Customer ID	This is the id of the customer associated with the contract. It is a required field at all times and must reflect a valid customer id in the *company* table. The field is for informational purposes only.
Department	The department to whom the contract belongs. This field is optional and is for informational purposes only. There is a link from this field to the *dept* table.
Budget Center	The budget center (profit center) with which the contract costs are associated. This field is optional and is for informational purposes only. There is a link from this field to the *budgetcenter* table.
Budget Code	The budget code with which the contract is associated. This field is optional and is for informational purposes only. There is a link from this field to the *budgetcode* table.
Project ID	The project number with which the contract is associated. This field is optional and for informational purposes only.
Accounting Code	The accounting code with which the contract costs are associated. This field is optional and for informational purposes only.
Language	This field indicates the primary language being used to convey the terms and conditions. This field is optional and is for informational purposes only. There is a link from this field to the *language* table.
Authorized Callers	This is a list of all the individuals who are allowed to call about the contract. This field is optional and is for informational purposes only. There is a link from this field to the *contacts* table.
Notification Group / Notification Contact	These two fields are reserved for future use; however, they can still be populated for informational purposes at this time.
Part No.	This field indicates the part number of the asset, if applicable. This field is optional and is for informational purposes only. There is a link from this field to the *model* table.
Manufacturer	Indicates the manufacturer of the asset, if applicable. This field is optional and is for informational purposes only. There is a link from this field to the *vendor* table.

Field	Description
Model	This field indicates the model of the asset, if applicable. This field is optional and is for informational purposes only. There is a link from this field to the *model* table.
Product No.	Denotes the product number of the asset if applicable. This field is optional and is for informational purposes only.
Purchase Order No.	Number of the purchase order associated with the contract.
Purchase Req No.	Number of the purchase requisition for the contract and any related assets.
Invoice No.	Displays the invoice number of the asset, if applicable. This field is optional and is for informational purposes only.

Lessor or Vendor/Contact tab

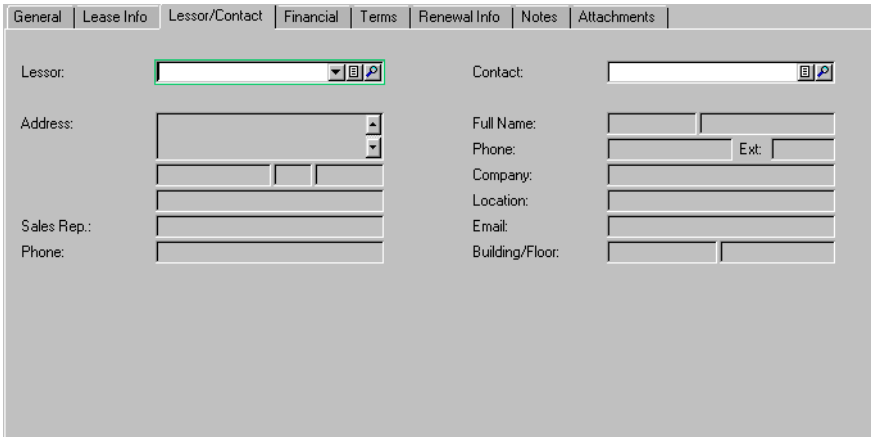


Figure 7-24: Lessor /Contact tab

Field	Description
Lessor	This field identifies the lessor associated with the contract. This field is optional and for informational purposes only. There is a link from this field to the *lessor* table. In addition, there are read-only fields below the **Lessor** field which provide more detailed information about the lessor, including: address, sales representative, and phone number.
Contact	This field indicates the lessor contact. This field is optional and for informational purposes only. There is a link from this field to the *contacts* table. In addition, there are read-only fields below the **Contact** field which provide more detailed information about the contact, such as full name, phone, company, location, E-mail, and building.

Financial tab

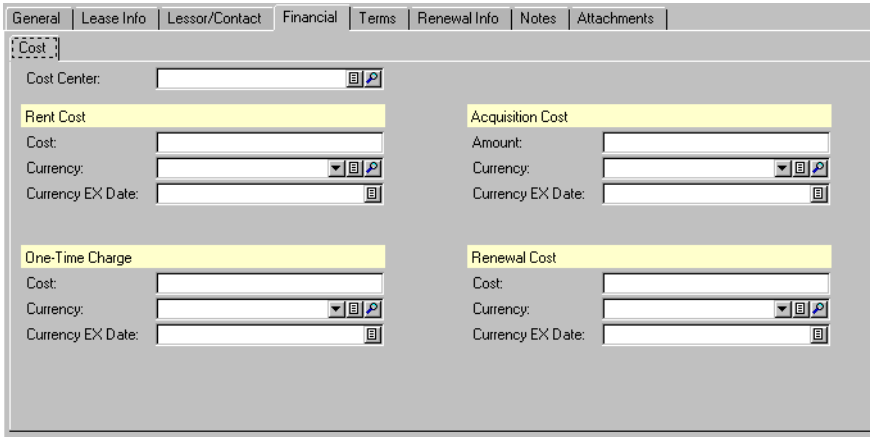


Figure 7-25: Financial tab

Field	Description
Cost Center	The cost center with which the contract costs are associated. This field is optional and for informational purposes only. There is a link from this field to the *costcenter* table.
Rent Cost	The amount of rent paid toward a leased asset in a contract (or in the case of a lease contract, the acquisition cost). The amount due can be scheduled to be paid over several payments, or single payments can be scheduled. There is an option on the Payment Information tab (see Figure 7-36 on page 328) to automatically generate a payment schedule against the rent cost. **Note:** For vendor contacts, this field is called Purchase Cost for the amount paid for an asset in a contract.
One-Time Charge	These three fields fully quantify the one-time charge amount that is due for a contract. The amount due can be scheduled as a one-time charge payment on the Payment Information tab (see Figure 7-36 on page 328) by scheduling a single payment. The Payment Code on the payment form, in this case, is "one-time".
Acquisition Cost	The cost to payoff or acquire assets in a contract.
Renewal Cost	The cost to renew a contract.
Currency	The currency of the contract.

Field	Description
Currency EX Date	If the currency of the base system is different than the currency of the contract, the system requires that you enter the date on which you are basing the exchange rate of the contract. The date must be today's date or a previous date.
Amount in <base currency>	This is the amount of the contract in the currency of the base system once the exchange rate conversion has been applied to the cost amount entered. This field only displays if the **Currency** field is populated.

Note: Depending on the contract type the Rent Cost, One-Time Charge, Acquisition Cost, or Renewal Cost fields may not be available on the Financial tab of all contract type information screens. For example, on the Financial tab of the Warranty Contract Information screen, Acquisition Cost fields are not available.

Terms tab

The Terms tab specifies the contract terms and conditions.

Figure 7-26: Terms tab

Field	Description
Item	This field relates to the actual physical number on the itemized contract which must be manually entered into the system.
Term/Condition	This field enables you to specify the terms and conditions unique to your organization.

To populate the Term/Condition field from your repository of standard terms:

1. Click **Inventory Management** in the Services tab of your Home menu.
2. Click the Contracts tab.
3. Click **Contracts**.
4. Locate the contract for which you want to add the terms and conditions.
5. Click the Terms tab.
6. Click the **Term/Condition** field.
7. Click **Fill**.

To add standard terms and conditions to the repository:

1. Click **Inventory Management** in the Services tab of your Home menu.
2. Click the Contracts tab.
3. Click **Terms and Conditions**.
4. Choose the contract type in the **Contract Type** drop-down list field.

   Note: If you want the term/condition to apply to all contract types, leave the **Contract Type** field blank.

5. Type a brief description in the **Term/Condition** field.
6. Click **Add**, or press **F1**, to add the record.

   A system-generated, unique ID for the record displays in the **Internal System ID** field. A message also displays in the status bar: *Contract Terms record added*.

Renewal Info tab

At the end of a lease, you can:

- Renew the leased assets.
- Return the assets.
- Purchase (buyout) the assets.

The Renewal Info tab documents if the contract is going be renewed.

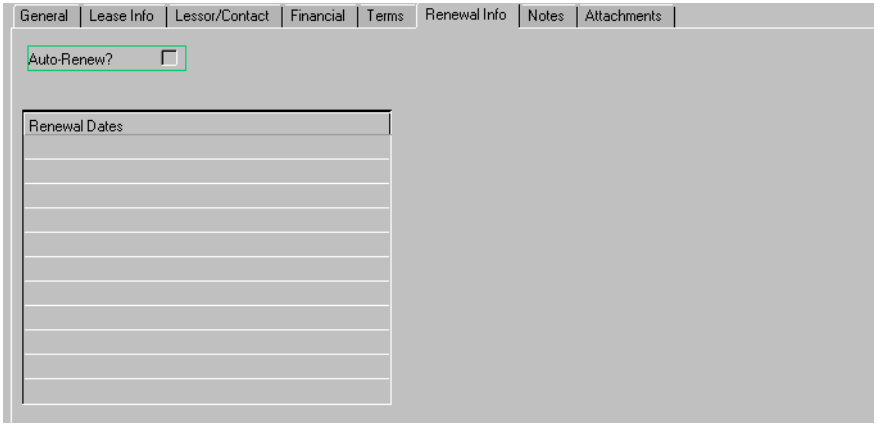


Figure 7-27: Renewal Info tab

Field	Description
Auto-Renew?	ServiceCenter functionality that allows you to automatically renew leases by selecting this check box. If you select this check box, you must indicate the length of the renewal period in days in the **Renewal Period** field.
Renewal Period	Required if the Auto-Renew check box is selected. It is the length of time in days of the new contract.
Notify in Advance	Selecting this check box indicates that you want to notified before a contract expires. If you select this check box, you must also indicate the number of days in advance in the **How Many Days?** field.
How Many Days?	Required if the Notify in Advance check box is selected. Enter the number of days you want to be notified in advance of the contract expiration.
Renewal Dates	This field documents all the renewal dates for the specified lease contract.

Notes tab

Figure 7-28: Notes tab

The Notes tab includes a free-form field that allows you to document any pertinent information about the contract.

Attachments tab

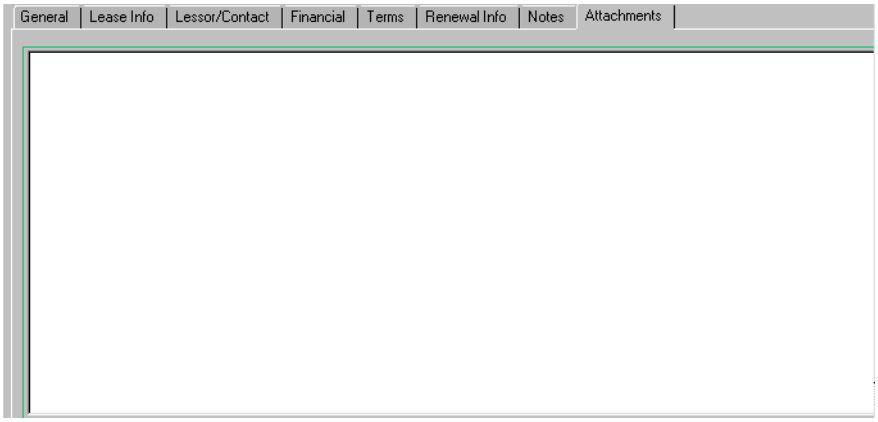


Figure 7-29: Attachments tab

The Attachment tab includes a free-form field in which you can attach electronic copies of the actual contract.

Tabs Unique to Each Contract Type

The second tab on the Contract form displays information specific to each contract type.

Lease Info tab

Field information specific to a contract type is located on the second tab. In this example, the details of a lease contract display on the second tab, the Lease Info tab.

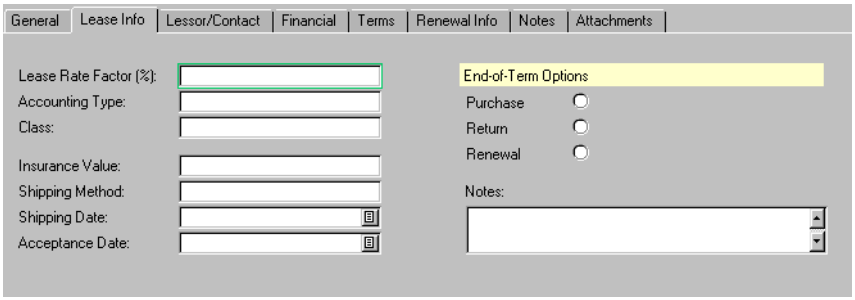


Figure 7-30: Lease Info tab

Field	Description
Lease Rate Factor %	Used in the rent calculation formula of contracts: *Contract rent = Value of the contract rent x Lease rate factor* The lease rate factor varies according to the type of asset under contract. It is contractual and can change from lease contract to lease contract. The Lease Rate Factor field is informational only.
Insurance Value	Indicates the monetary value for which you are insuring the assets in the contract.
Shipping Method	Displays the means by which the asset is being sent to you.
Shipping Date	The date the assets are shipped from the vendor.
Acceptance Date	The date you receive and accept the assets into your organization.

Field	Description
End-of-Term Options	Documents what you are planning to do at the end of the contract. ■ Purchase ■ Return ■ Renewal Note: The Renewal option button is tied to the Auto-Renew flag on the Renewal Info tab. If renewal is selected here, the Renewal tab shows the renewal flag as activated once the contract is saved.
Notes	Free-form field document any notes about the end-of-term action.

Maintenance Info tab

Details specific to a maintenance contract display on the Maintenance Info tab.

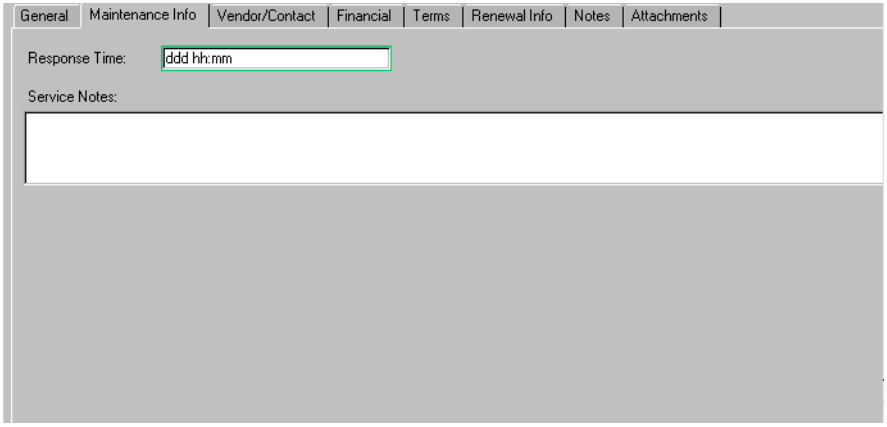


Figure 7-31: Maintenance Info tab

Field	Description
Response Time	Use this field to indicate the typical response time of the vendor when a call is placed for service.
Service Notes	Document any pertinent information about the maintenance work orders in the Service Notes field.

Support Info tab

Details specific to a support contract display on the Support Info tab.

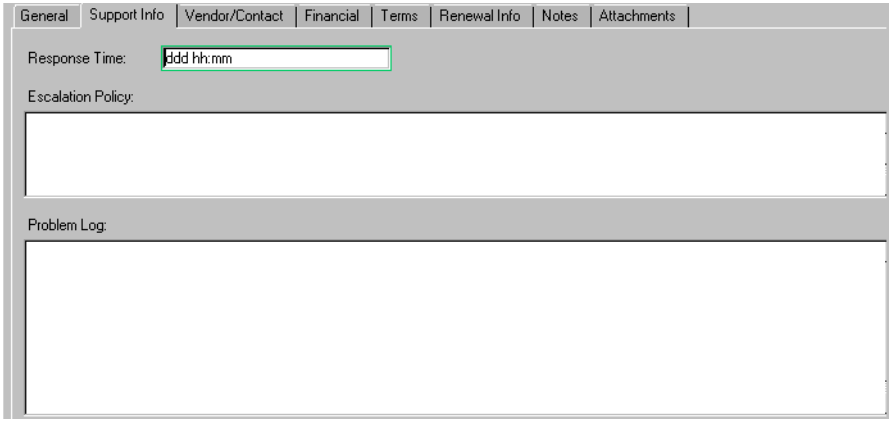


Figure 7-32: Support Info tab

Field	Description
Response Time	Documents the response time based on the severity of the support call.
Escalation Policy	This multi-line field can be used to specify an organization's rules about its escalation policy if a problem cannot be solved through typical support channels.
Problem Log	Use this multi-line field to document all support calls tied to the contract. It is a good idea to include resolution.

Warranty Info tab

Details specific to a warranty contract display on the Warranty Info tab. In particular, the tab documents the warranty type.

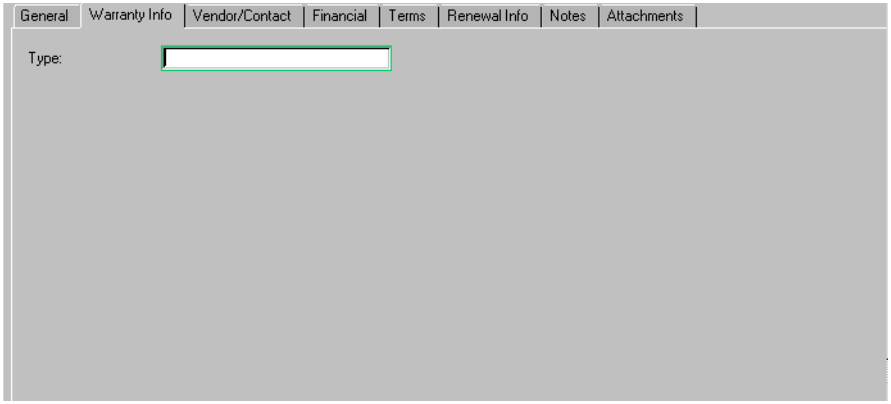


Figure 7-33: Warranty Info tab

Creating a Contract By Template

In order to create contract by template, you must first create the template. You can create the template two ways:

- From an existing contract
- Using the template form

To create a template from an existing contract:

1. From the Contracts tab, click **Contracts**.
2. Click **Search** to locate the contract from which you are creating the template.

3 Choose **Options>Create Template.**

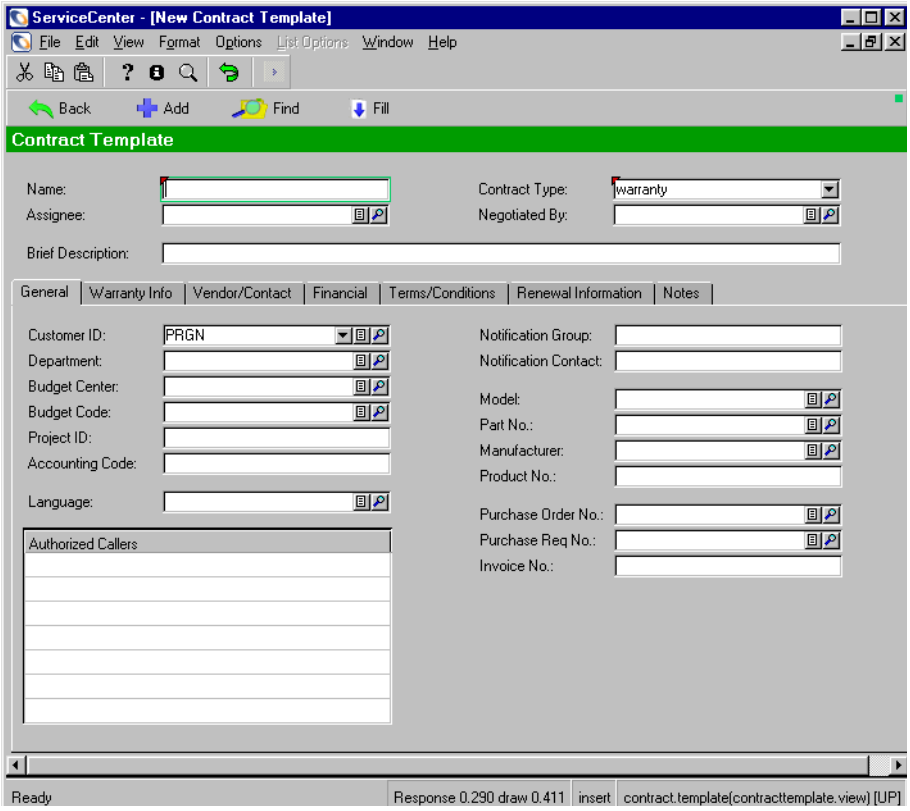


Figure 7-34: Contract Template form

4 Type the name of the template in the **Name** field.

5 Change any necessary information.

Note: Only complete those fields with information that can be standardized across contracts.

6 Click **Add.**

The new template has been added to the system.

To create a template using the contract templates form:

1 From the Contracts tab, click **Contract Templates**.

The **Name** field and the **Contract Type** field are required fields.

2 Type the template name in the **Name** field.

3 Choose the contract type in the **Contract Type** drop-down list field.

4 Populate the fields of the different tabs according to your needs.

5 Click **Add** to add the template to the system.

To create a contract using a template:

1 On the Add New Contract wizard form, click **Create a contract from which template?** option.

2 Choose the template from the **Create a contract from which template?** drop-down list field. The New Contract form displays.

Cancelling contracts

Cancelling a contract does not delete from the system; it merely changes the status. You can cancel a contract up until its expiration date.

To cancel a contract:

▶ Choose **Options>Cancel Contract**.

Notice the **Status** field indicates cancelled. Once a contract is cancelled, you can not reinstate it.

Note: When you cancel a contract, all outstanding payments against that contract are cancelled as well

Renewing contracts

To renew a contract:

1 Access the contract you want to renew.

2 Click the Renewal Info tab.

3 Select the **Auto-Renew?** check box.

4 Type the numbers of days you are renewing the contract for in the **Renewal Period** field.

This is a required field.

5 If you want to be notified in advance of a contract that is expiring, select the **Notify in Advance?** check box.

6 Type the number of days you want to be notified in advance of the contract expiration in the **How Many Days?** field.

This field is required if the **Notify in Advance** check box is selected.

7 Click **Save**.

A message in the status bar displays, "Contract record updated."

Managing contracts

Tracking contract details and payments

To track contract details and payments:

1 Click **Contract Queue** on the Contracts tab on the Home menu of Inventory Management.

2 Use the inbox functionality to manage contracts.

To learn more about using inbox functionality, see the *Getting Started* chapter on page 77.

Adding assets to a contract

Note: You can add assets to only the following contract types:

- Lease
- Maintenance
- Support
- Warranty

To add assets to a contract:

Note: The ability to add assets is granted only to users who have the appropriate security privileges in their user profile.

1 Open the contract to which you want to add assets.

2 Click the Assets tab.

3 Click **Add Assets**.

The Select Assets to Add to Contract wizard displays.

4 Click **Fill** next to the first field.

A Search criteria form displays.

5 Complete the necessary fields to further filter the list to locate the assets you want to add to the contract.

6 Click **Search**.

7 Select the assets using one of the following methods:

- Click **Fill All** if you want all assets added to a contract.
- Select assets one at a time by clicking each row that contains an asset you want to add to a contract.
- Choose **Options**>**Toggle Multiple Selection**. Toggle Multiple Selection allows you to select more than one record at a time.

  When Toggle Multiple Selection is activated, the title bar reads, "Select Related Records Multiple Selections are ENABLED." (If the Toggle Multiple Selection is not activated, the title bar reads, Select Related Records Multiple Selections are DISABLED.")

  Each time you select an asset record, a message displays in the status line indicating, *# records filled*, where # is the total number of records selected thus far.

You are returned to the wizard form.

8 Click **Next**.

All the assets you selected to add to the contract are displayed on the Assets tab of the Contract Information form.

9 If you want to allocate costs to an asset you have added, double-click the row in which the asset appears.

The Allocation Information form displays.

10 Type the percentage of the cost you are allocating to this asset in the **% Cost Allocation** field.

11 Click **Save**.

You return to the Assets tab of the Contract Information form.

Note: If you want the system to allocate costs for *all* of the assets in the contract, click **Generate %**.

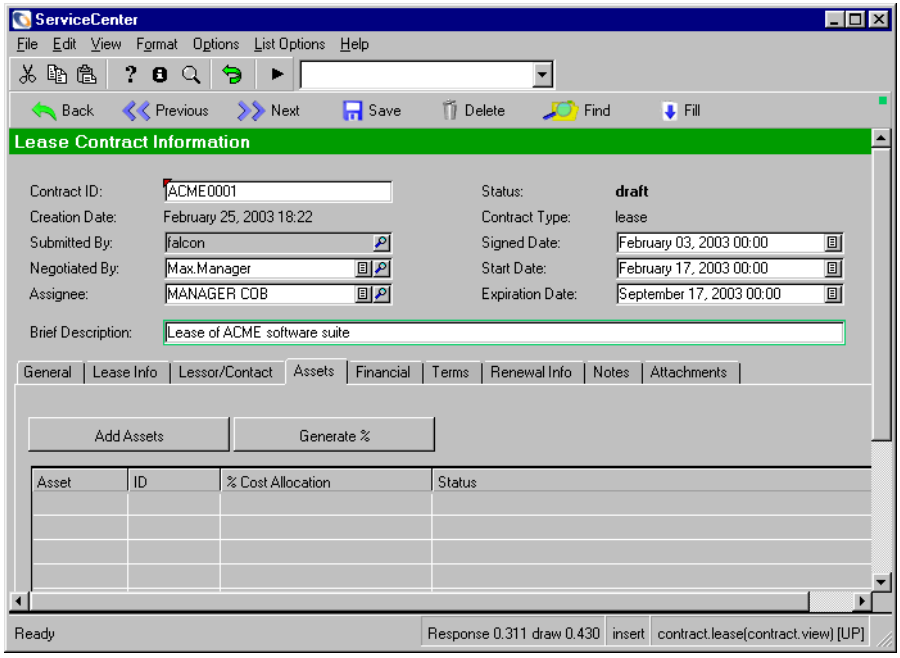


Figure 7-35: Assets tab of the Contract form

Note: Adding licenses to a software contract follows the same procedure as adding assets to other types of contracts.

Asset tab

Field	Description
Asset	Specifies one of the following device types: ■ devices ■ location ■ contacts
ID	Indicates the asset ID.
% Cost Allocation	Indicates the percentage of the cost allocated to a particular asset.
Status	If the status of an asset is not installed when payment is submitted for that asset, the system won't prorate it.

Note: On software contracts, you add assets (licenses) via the Licenses tab.

Scheduling payments

To schedule a single payment for a contract:

1 Access the contract for which you are making a payment.

2 Click the Financial tab.

3 Click the Payment Information tab.

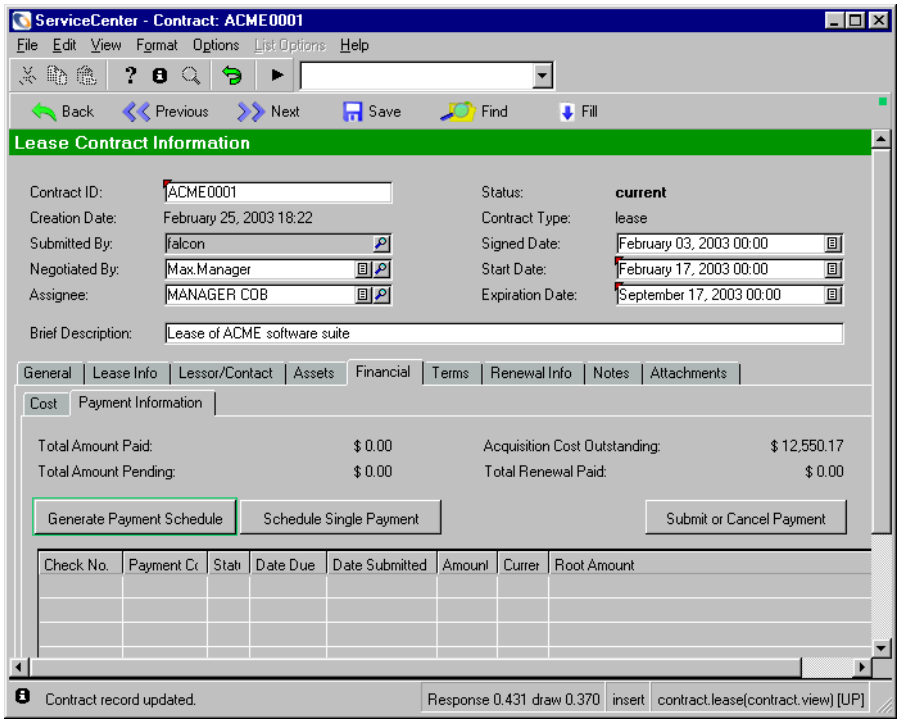


Figure 7-36: Payment Information tab

4 Click **Schedule Single Payment**.

5 Type the amount of the payment in the **Amount** field.

6 Type the currency in which you are making the payment.

7 Select the payment code in the **Payment Code** field.

There are several codes you can enter:

- One time—a one-time only cost indicated on the contract.
- Purchase—payment towards the purchase costs. (For a lease it is payment towards acquisition costs.)
- Renewal—payment towards renewal costs.
- Buyout—payment to payoff the lease contract. (It only applies to lease contracts.)
- Other—payment of other costs, such as administrative costs.

8 Type the date the payment is due in the **Date Due** field.

A message displays in the status bar: *Payment record added.*

9 Click **Add**.

If this is a new payment, the system assigns it a status of pending.

Note: The due date is always a date past the current date. Otherwise, the system does not process the payment.

To schedule a payment via the Payment Information form:

1 From the Contracts tab, click **Payments**.

The Payment Information form is displayed.

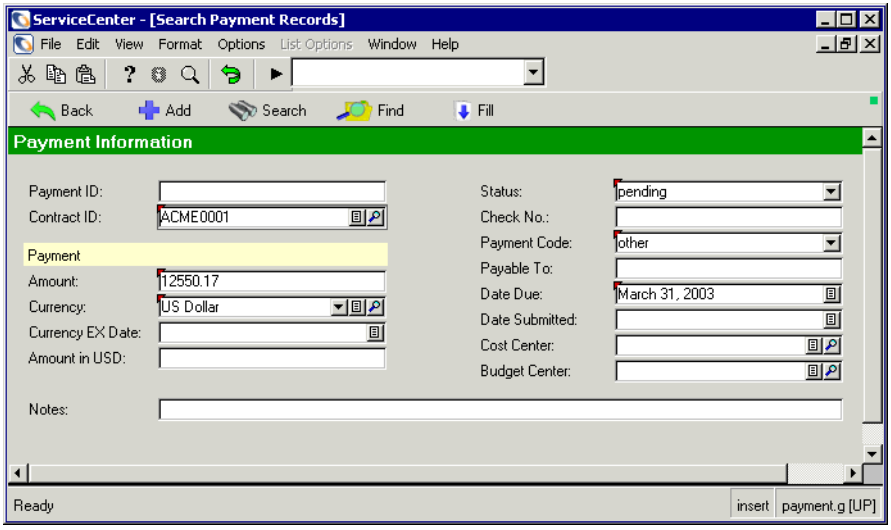


Figure 7-37: Payment Information form

2 Type the Contract ID in the **Contract ID** field.

The Contract ID is the number of the contract to which you are adding a payment.

3 Type the amount of the payment in the **Amount** field.

4 Type the currency in which you are making the payment.

5 Select the status of the payment in the **Status** field.

There are three statuses you can select:

- Pending—the initial status when you first add a payment to a contract.
- Submitted—indicates that the payment is processed and cannot be retrieved for modification or deletion.
- Cancelled—payment is cancelled. It still appears in the list of payments, but it can no longer be submitted for payment.

6 Select the payment code in the **Payment Code** field.

There are several codes you can select:

- One time—indicates you are making a one time payment.
- Purchase—payment towards the purchase or acquisition of assets in the contract.
- Renewal—payment to be applied to any renewal costs.
- Buyout—payoff of the contract.
- Other—negotiation, administrative, addendum, cancellation, prepayment costs.

7 Type the payment due date in the **Due Date** field.

8 Populate the remaining fields according to your needs.

9 Click **Add**.

Submitting a Payment

To submit a payment:

1 From the Contracts tab, click **Payments**.

2 Locate the payment you want to process and select it.

3 Click **Submit Payment**.

When you submit a payment, you prorate costs of each asset in the contract.

Cancelling a payment

To cancel a payment:

Note: You can only cancel payments still in pending status.

1 On the Contracts tab of the ServiceCenter Home menu, click **Payments**.

2 On the Payment Information form, type any information you have about the payment you want to cancel.

3 Click **Search**.

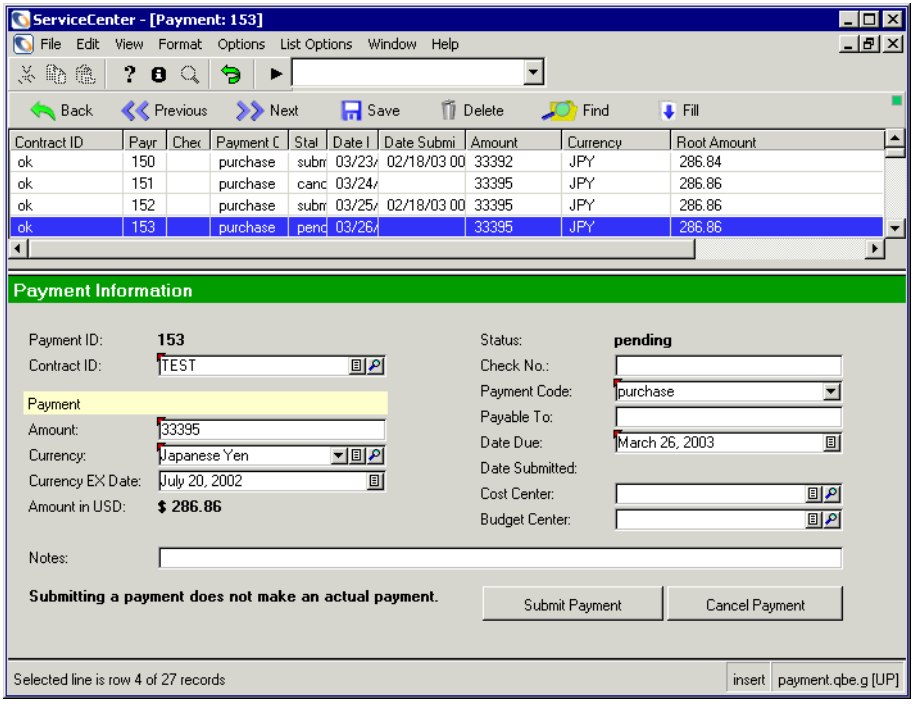


Figure 7-38: Payment Information form

4 In the results list, click the payment you want to cancel.

Specific information about the payment you are cancelling appears in the detail area below the table.

5 Click **Cancel**.

Notice the **Status** field now shows cancelled.

Deleting a Payment

1 On the Contracts tab of the Inventory Management menu, click **Payments**.

2 On the Payment Information form, type any information you have about the payment you want to cancel.

3 Click **Search**.

4 Click **Delete**.

Generating a Payment Schedule

ServiceCenter has the functionality to generate a payment schedule for your contracts.

To generate a payment schedule:

1. Access the contract for which you are making a payment.
2. Click the Financial tab.
3. Click the Payment Information tab.
4. Click **Generate Payment Schedule**.

   The Generate Payment Schedule Wizard displays.

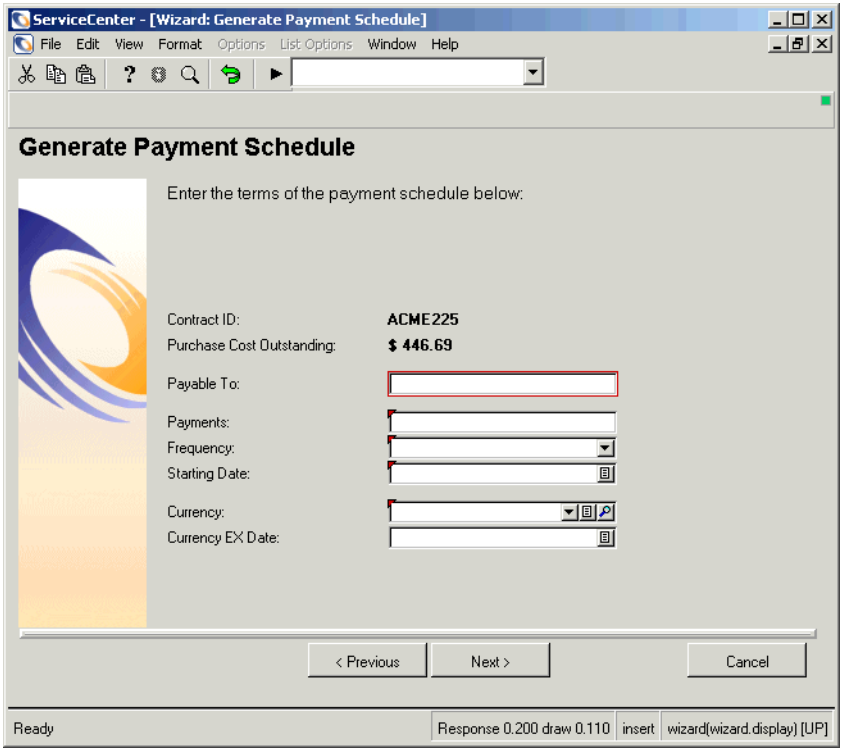


Figure 7-39: Generate Payment Schedule Wizard

5 Complete the following required fields:

- Payments—the amount of each payment in the payment schedule.
- Frequency—how often you want to make payments.
- Starting Date—the first date you want to make a payment.
- Currency—the currency of the payments.
- Currency EX date—is required only if the system currency and payment currency aren't the same.

6 Click **Next**.

For the amount of the payments and the frequency with which you want to make them, the system checks to see if the payment schedule fits within the start and end date of the contract. If the amount and frequency of payments doesn' t fit within those date parameters, an error message displays.

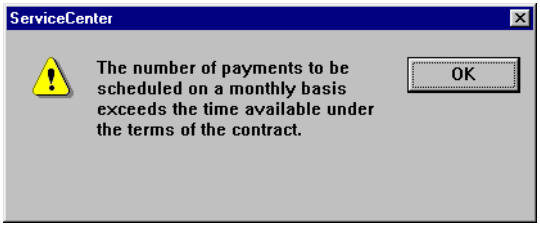


Figure 7-40: Error Message

Note: The ability to schedule a payment, generate a payment schedule, update, submit, cancel, or delete a payment depends on the privileges granted by the administrator in the user profile. In addition, the **Generate Payment Schedule**, **Schedule Single Payment**, **Submit or Cancel Payment** buttons are *not* available if there is no outstanding cost to make a payment against.(See the **Purchase Cost Outstanding** field.)

Network Discovery Integration with Inventory Management

ServiceCenter integrates with the Network Discovery product to provide network monitoring capabilities within ServiceCenter. See the *Events Services* guide for more information about Network Discovery.

The assets discovered by Network Discovery are recorded in the ServiceCenter database in the asset records. When an asset is discovered by Network Discovery, a new asset record is created. If Network Discovery determines that the information has changed, the ServiceCenter asset record is updated. If Network Discovery determines that the asset is no longer on the network, the asset record is flagged.

The data written from the Network Discovery database to the ServiceCenter asset records are mapped to specified fields within the asset records. This mapping is set within the Connect.It product.

This section includes the following topics:

IND Device Types

Network Discovery provides numerous device type classifications in the **IND Device Type** field. Network Discovery categorizes devices in two classes: real and virtual.

Real Assets

Real assets are network assets that Network Discovery can positively identify and assign a device type. The device type as identified by Network Discovery corresponds to the asset button assigned by Network Discovery.

Virtual Assets

Virtual assets are connectivity tools. When Network Discovery determines that two assets are connected by an undetermined path, it inserts a virtual asset between the assets as a placeholder.

There are two types of virtual assets: cloud and diamond. The cloud asset represents a single or group of real assets that Network Discovery cannot identify. The diamond asset represents connectivity that Network Discovery cannot identify.

Launching Network Discovery's Device Manager

Network Discovery's Device Manager provides details of the assets discovered on the network. The Device Manager can be launched from an asset record generated by asset information from Network Discovery. The Device Manager provides several panels of information for each asset in the network. The data includes the asset state, status, port information and the asset address.

To launch the Device Manager from an asset record:

- Select **Options**>**View IND Device** from the menu bar.

  For more information on using the Device Manager, see the *Network Discovery User's Guide*.

Network Discovery Device Types and Their ServiceCenter Equivalents

Not all Network Discovery device types are listed in ServiceCenter. Instead, the Network Discovery device type is mapped to a type that is equivalent to a type in ServiceCenter. This type is listed in the Type field of an asset record. Network Discovery Device types and their ServiceCenter equivalents are shown below:

Network Discovery DeviceType	Network Discovery Device Class	ServiceCenter Device Type
Enterprise Router	Network	device.router
Enterprise ATM	Network	device.switch
Enterprise Switch L3+[a]	Network	device.switch
Enterprise Switch L2-[b]	Network	device.switch
Access Switch	Network	device.switch
Router	Network	device.router
ATM Switch	Network	device.switch
Switch L3+[c]	Network	device.switch
Switch L2-	Network	device.switch
Ethernet/1000	Network	device.netcard
Ethernet/100	Network	device.netcard
FDDI	Network	device.netcard
100VG AnyLAN	Network	device.netcard
Ethernet/10	Network	device.netcard
Token Ring	Network	device.netcard
Wireless Access Point	Network	device.netcard
Transceiver	Network	device.netcard
Firewall	Network	device.router
VPN Gateway	Network	device.router
Local/Remote Access Server	Network	device.router
Gateway	Network	device.router

Network Discovery DeviceType	Network Discovery Device Class	ServiceCenter Device Type
Backplane	Network	device.circuit
Server	Server	device.server
Mainframe/Large Server	Server	device.server
Storage Server	Server	device.server
Web Server	Server	device.server
Microsoft Server	Server	device.server
Novell Server	Server	device.server
Banyan Server	Server	device.server
UNIX Server	Server	device.server
NMS Appliance	Server	device.server
Workstation	Workstation	device.workstation
Network Computer	Workstation	device.workstation
Laptop	Workstation	device.workstation
POS/ATM	Workstation	device.workstation
Apple Workstation	Workstation	device.workstation
Microsoft Workstation	Workstation	device.workstation
UNIX Workstation	Workstation	device.workstation
X Terminal	Workstation	device.workstation
Printer	I/O	device.printer
Color Printer	I/O	device.printer
Printer Server	I/O	device.server
Image Input	I/O	device.peripheral
Robot/Controller	Controller	device.peripheral
UPS	Miscellaneous	device.peripheral
Analyser	Miscellaneous	device.peripheral
Gadget	Miscellaneous	device.peripheral
Unknown	Unknown	device.example
Unknown NCD	Unknown	device.example

Network Discovery DeviceType	Network Discovery Device Class	ServiceCenter Device Type
Cloud	Cloud Virtual Device	device.hub
Radio Cloud	Cloud Virtual Device	device.hub
Carrier Network	Cloud Virtual Device	device.hub
Unmanaged Hub	Cloud Virtual Device	device.hub
Shared Port	Diamond Virtual Device	device.port or none
Approximate	Diamond Virtual Device	device.hub or none
Unmapped IP	Diamond Virtual Device	None
Logical View	Diamond Virtual Device	None
LV Unmapped IP	Diamond Virtual Device	None
LV Unmapped	Diamond Virtual Device	None

aLevel 3 or above.
bLevel 2 or below.
cLevel 3 or above.

Network Discovery-Related Fields Added to Asset Records

The Network Discovery asset information is placed in the asset records and displayed in added fields in the asset formats. This section describes the fields containing Network Discovery information and where those fields are located.

Inventory Management Database Changes

The following fields are added to the ServiceCenter **device** database file and all child asset files (such as deviceworkstation and deviceserver). These fields are added to the various tabs in the asset records, as shown in the following sections.

Field	Type
family.name	character
family.uri	character
model.uri	character
vendor.uri	character
operating.system	character
os.uri	character
mtbf	character
total.downtime	character
install.date	datetime
server.id	number
port.desc	character
port.index	number
dest.mac	character
dest.port.index	number
ind.removed	logical
breaks	number
primary.app.name	character
primary.app.uri	character

General tab

The following Network Discovery related fields are in the General tab of the device records.

Field	Label
family.name	Family Name
family.uri	Family URI
model.uri	Model URI
mtbf	Mean Time Between Failure.
total.downtime	Total Downtime
install.date	Installed on
server.id	Network Discovery Server ID
ind.removed	Removed from Network Discovery
breaks	Total Number of Breaks

Note: Mean Time Between Failure (mtbf) is a value that is not directly provided by Network Discovery. Instead, this value is derived by dividing Total Breaks (breaks) by Total Downtime (total.downtime).

Software tab

The following Network Discovery-related fields are in the Software tab of the asset records.

Field	Label
operating.system	OS Installed
os.uri	OS URI
primary.app.name	Primary Application
primary.app.uri	Primary Application URI

Relationship tab

The following Network Discovery related fields are in the Relationship tab of the asset records.

Field	Label
port.desc	Port Description
port.index	Port Index
dest.mac	Destination MAC Address
dest.port.index	Destination Port Index

Vendor tab

The following Network Discovery related fields are in the Vendor tab of the asset records.

Field	Label
vendor.uri	Vendor URI

Passing Network Discovery Device Information to ServiceCenter

Network Discovery also provides the following asset properties. When Event Services maps these properties, they are mapped to specific ServiceCenter fields in the translation process. See the *Events Services* guide for information.

Network Discovery Asset Property Definitions

The following table defines the Network Discovery asset properties that are passed to ServiceCenter:

Asset Property	Description
SystemName	The SNMP system name.
SystemDescription	The SNMP system description.
SystemLocation	The SNMP system location.
SystemContact	The SNMP system contact.
SystemObjectID	The SNMP system object ID.
SWCompanyName	The Company associated with SystemObjectID.

Asset Property	Description
SWCompanyURI	The URI associated with SWCompanyName.
FamilyName	The Device Family.
FamilyURI	The URI associated with FamilyName.
ModelName	The Device Model.
ModelURI	The URI associated with ModelName.
OSName	The Operating System.
OSURI	The URI associated with OSName.
ApplicationName	The main Application of this server.
ApplicationURI	The URI associated with ApplicationName.
IPv4Address	One IPv4 address associated with the device (if any).
DeviceTag	The device tag (aka the other title that displays on the map).
DeviceTitle	The device title that displays on the map, as assigned by the prime account.
Breaks	The total number of breaks on the device since the device was found or since the administrator has reset the counter.
Downtime	The total downtime of the device in seconds since the asset was found or since the administrator has reset the counter.

Port-to-Port Information

Network Discovery also provides connectivity information about each port on the asset. The following information is passed to ServiceCenter:

Device PORT Property	Description
Device PORT Property	Description
PortIndex	The MIB index of the port.
PortDescription	The description associated with the MIB index.
Connection	If it exists, it contains a *Device* and optionally a *Port* object to which the asset has a connection. Neither the Device nor the Port object have any attributes except for their required NMID.

For ServiceCenter, the port property **Connection** is further broken down by the Connect.It product for the following:

- Destination MAC Address
- Destination port index number

CHAPTER 8

Service Level Management

This chapter provides an introduction to *Service Level Agreements*, including general definition of service level agreements (SLAs) and how they are used in ServiceCenter, general description of the SLM interface with other ServiceCenter applications and external sources, knowledge requirements, and integrating of SLM information into ServiceCenter applications (Service Management, Incident Management, Change Management, and Inventory Management)

Service Level Agreements (SLAs) track performance and provide system feedback on service agreements between departments within a company. SLAs are integrated into the ServiceCenter suite of applications, but they may be implemented separately to monitor the quality of both external and internal service.

This chapter is organized into the following main sections:

Understanding Service Level Management

What Is an SLA?

An SLA (service level agreement) is an agreement between a service provider and a customer. An SLA can be internal (between the departments within an organization) or external (between an organization and a vendor). These agreements encompass two important facets of service:

- Availability of a specific resource within a specified time frame.
- Performance guarantees for service response times.

Why Are SLAs Important?

How do you quantify the level of service you receive both from within your organization and from service contracts with outside vendors?

Are your resources available when you need them?

If an outage occurs for a resource specified in a service agreement, did the provider respond as promised?

Accumulating accurate service performance data manually and evaluating it properly over an extended period is not feasible for a large enterprise. Your organization must accumulate such data automatically to track service guarantees efficiently. You must detect the failure of a service guarantee to protect yourself from the economic consequences of lost productivity.

How Are SLAs Implemented?

Typically, SLAs are used internally to track the service performance of an IT department within an organization. Service guarantees are defined between IT and other departments in the organization regarding object (e.g., devices or software) availability and response performance. For example, the IT department might guarantee that a development department server is available 98% of the time and that 99% of the time IT will respond to an outage involving that device within one hour.

The SLA reflects the foregoing guarantees. The SLA also tracks compliance and displays the potential economic impact of outages.

Most organizations apply SLAs in the following manner:

- Focus on discrete measures of object performance such as hardware availability.
- Add metrics for help desk performance, technician response time, and customer satisfaction.
- Assess economic impact on the enterprise resulting from SLA performance.
- Publish SLAs to the user community in an effort to increase end user satisfaction.

SLM Module

The SLM module provides a centralized repository of SLM information and is fully integrated into the ServiceCenter suite of applications. The module is fully automatic and continuously recalculates SLA performance. Availability and response metrics are fed into the module and charted in a graphic display. Outage information is gathered from such sources as Incident tickets and change requests and compared with service guarantees to determine the *health* of the SLAs in the system.

The SLM module can also help prioritize Incident resolution. For example, as a system administrator you can use the SLM module to escalate an Incident ticket inside ServiceCenter if the service guarantee is in jeopardy.

Interfacing with External Sources

Through external event interfaces, information about network health or technician performance is fed into the SLM module from external enterprise management sources, even if no other elements of the ServiceCenter suite are installed at your site.

SLAs and ServiceCenter Applications

This section explains the procedures for integrating SLA information into ServiceCenter applications (Service Management, Incident Management, Change Management, and Inventory Management).

Service Management Integration with SLM

The Service Management application uses the SLM module to determine the level of service to extend to a particular caller. The module does this by the following two methods:

- **SLA Determination —** The SLM module evaluates new calls and determines the SLA to apply to the call.
- **Entitlement Checking —** The system checks to see if the caller, based on the SLA chosen, has rights to help desk service at that particular time (time of day/day of week).

If the caller is entitled to service, the call report is opened. If the call is outside the time frame of the service level agreement, the system prompts the technician of the violation and seeks to close the call.

The SLM Configuration module allows the system administrator to configure the controls to allow for overrides and ignore service hour limitations. The SLM module can be switched off altogether so that it does not function with ServiceCenter applications. Refer to the *System Administrator's Guide* for more information on the administration for Service Management.

SLA Determination

The SLM module determines which SLAs to use for a particular caller based on two models:

- Default department SLA
- Category/Priority mapping

Default department SLA

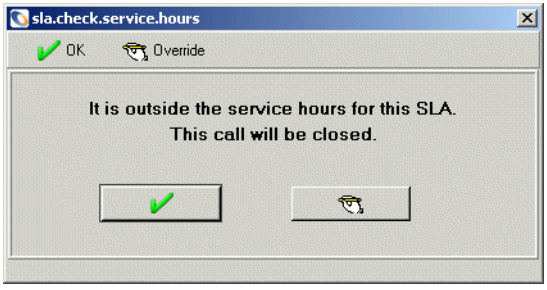
The default department SLA model bases a call's SLA on the caller's department. All departments have a default SLA defined, which the system selects when a call report is opened. For details on defining default department SLAs, refer to the *Service Level Management* chapter in the *Application Administration Guide*.

Category/Priority Mapping

The Category/Priority mapping model bases a call's SLA upon a combination of the caller's department, the call's category, and the priority assigned to the call. SLAs defined by these criteria are used first by the system when the **Enable Category/Priority mapping** option is selected in the SLA configuration record. Category/Priority maps may have as many SLAs within a priority as there are categories. For details on defining advanced SLA assignments, refer to the *Service Level Management* chapter in the *Application Administration Guide*.

Entitlement checking

The system automatically checks to determine if a particular caller, based upon his or her SLA, has the right to help desk service at the current time of day and/or day of the week. If the service level agreement does not provide service to the caller for that period, the system automatically notifies the first level technician by displaying the following entitlement prompt:



If the system has been configured for overrides, the technician can click the **Override** button and proceed with the call report. For information on the override and service hours options, refer to the *Application Administration Guide*.

Opening a new call report

When the SLM module is enabled, you must provide the system with certain SLM information to open a new call report. You may either choose an SLA from a drop-down list or provide the following information when prompted, so the system can select the proper SLA for the caller's department:

- Name of the individual reporting the Incident.
- Category of the call.
- Priority of the call.

This information determines the SLA used for the call and whether or not the caller is entitled to service at that time.

To open a new call:

1 Click **Service Management** in the System Administrator's home menu.

The Service Management menu appears.

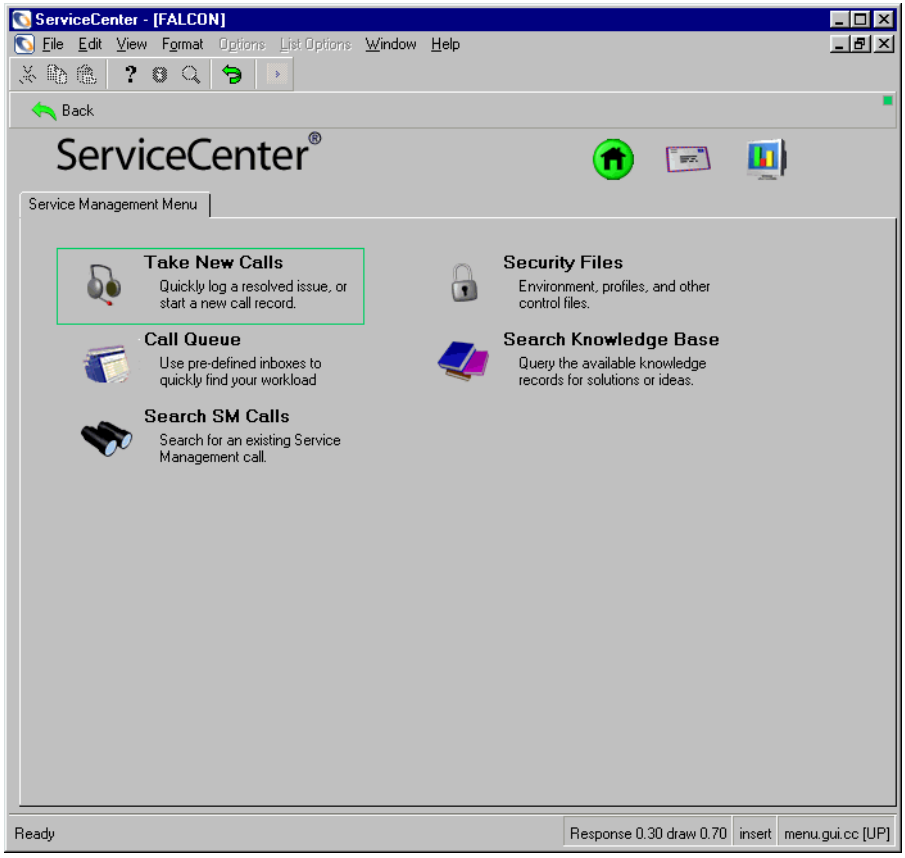


Figure 8-1: Service Management menu

2 Click **Take New Calls** in the Service Management menu. A call report form displays.

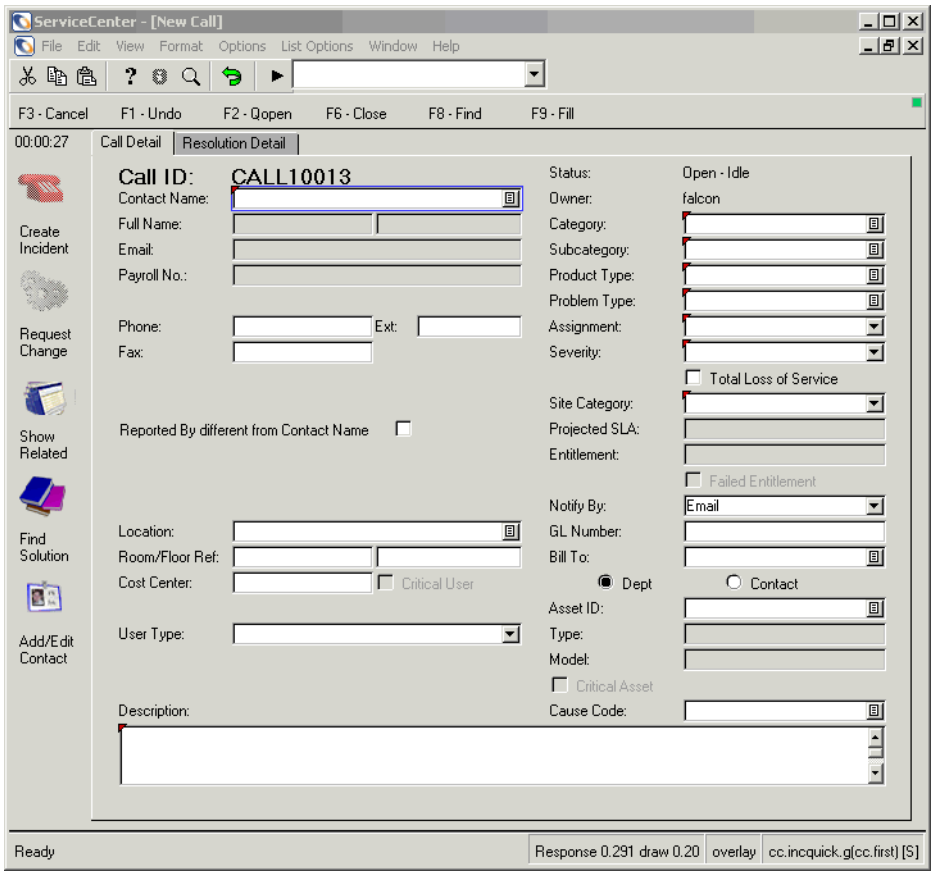


Figure 8-2: Call Report form

3 Complete the form.

4 To have the SLA automatically selected, complete the following fields:

- **Contact Name**
- **Severity**
- **Site Category**
- **Description**

If more information is required for the SLA to be selected, the SLA information dialog box opens. Complete the blank fields in the SLA information dialog box.

5 Open a call or an incident, as follows:

- Open the call.

a Click **QOpen**.

If a required field is not completed, a message appears in the status bar asking you to fill in the field.

If **Enable Category/Priority mapping** has been selected in the SLA configuration record, the SLA Information dialog box displays.

For more information about Enable Category/Priority mapping, see the *Application Administration Guide*.

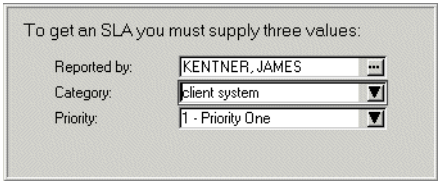


Figure 8-3: SLA Information dialog box

b Complete the missing information.

c Click OK.

A message in the status bar tells you that the ticket was opened. The system has selected an SLA and fills in the appropriate fields in the Call. The selected SLA appears the next time you view the call record.

- Open an Incident.

a Click **Create Incident**.

The Incident ticket opens. After the incident has been opened and saved, the next time the incident is viewed the SLA tab appears.

b To see the SLA information in the Incident ticket, select the SLA tab.

For definitions of the fields in the SLA tab, see the *Incident Management* chapter in this guide.

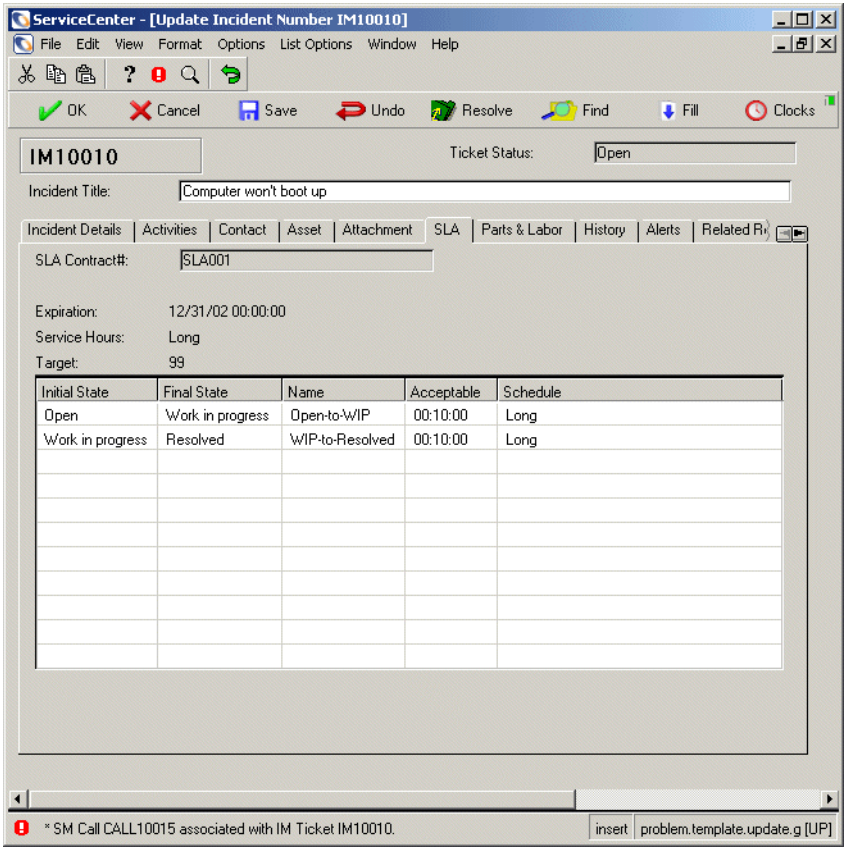
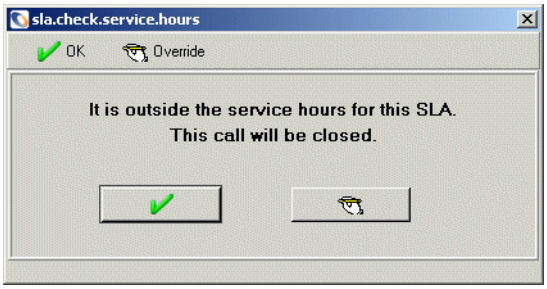


Figure 8-4: SLA tab in an incident ticket

Calls outside service hours

If the caller is not entitled to service at the current time (as specified by the SLA selected), the system notifies the help-desk technician by displaying the following prompt:



Respond to the prompt in one of the two following ways:

- Click **OK** to close the call.
- Click **Override** to override the system and open the call.

Note: The **Override** button functions only if the **Check Service Hours** option is selected in the SLA configuration record.

Incident Management Integration with SLM

Much like Service Management, Incident Management uses the SLM module to determine the level of service to extend to a particular caller. Incident Management supports both SLA determination and entitlement checking. For additional information on level of service determination, refer to *Service Management Integration with SLM* on page 348. Refer to the *System Administrator's Guide* for more information on the administration for Incident Management.

The SLM module provides another dimension to the category-driven escalation model for Incident tickets. Options in the Configuration module allow system administrators to escalate tickets based on the availability of objects and the response metrics. For information on escalation options, refer to the *SLA Options* section in the *Service Level Management* chapter of the *Application Administration Guide*.

Open Incident tickets display SLA guarantees and current response metrics for SLAs selected in a tab labeled **SLA**.

Opening a Ticket

When the SLM module is enabled, the system automatically assigns an SLA to the ticket based on the following workflow:

1. Is **Category/Priority mapping** enabled?
   a. If it is enabled, is the contact's department, the incident ticket's category, and the incident ticket's priority defined in the **slaassign** table? This data makes up the key to the **slaassign** table. (For information on creating this map, refer to the *SLA Maintenance Tasks* section in the *Application Administration Guide*.)
      - If it is defined in the **slaassign** table, the SLA specified on the slaassign record is used as the SLA for the ticket.
      - If it is NOT defined in the **slaassign** table, go to Number 2.
   b. If Category/Priority mapping is NOT enabled, go to Number 2.
2. Is there an SLA defined for the department to which the contact belongs?
   - If there is an SLA defined for the contact's department, that SLA is used as the SLA for the incident ticket.
   - If there is NO SLA defined for the contact's department, go to Number 3.
3. Is there a default SLA defined for the contact's company?
   - If there is an SLA defined for the contact's company, that SLA is used as the SLA for the incident ticket.
   - If there is NO SLA defined for the contact's company, go to Number 4.
4. Is there a default SLA defined in the SLA Configure Module?
   - If there is a default SLA defined in the SLA Configure Module, that SLA is used as the SLA for the incident ticket.
   - If there is no default SLA defined in the SLA Configure Module, the incident is NOT assigned an SLA.

To open a new Incident ticket:

1 Click **Incident Management** in the system administrator's home menu.

The Incident Management menu displays.

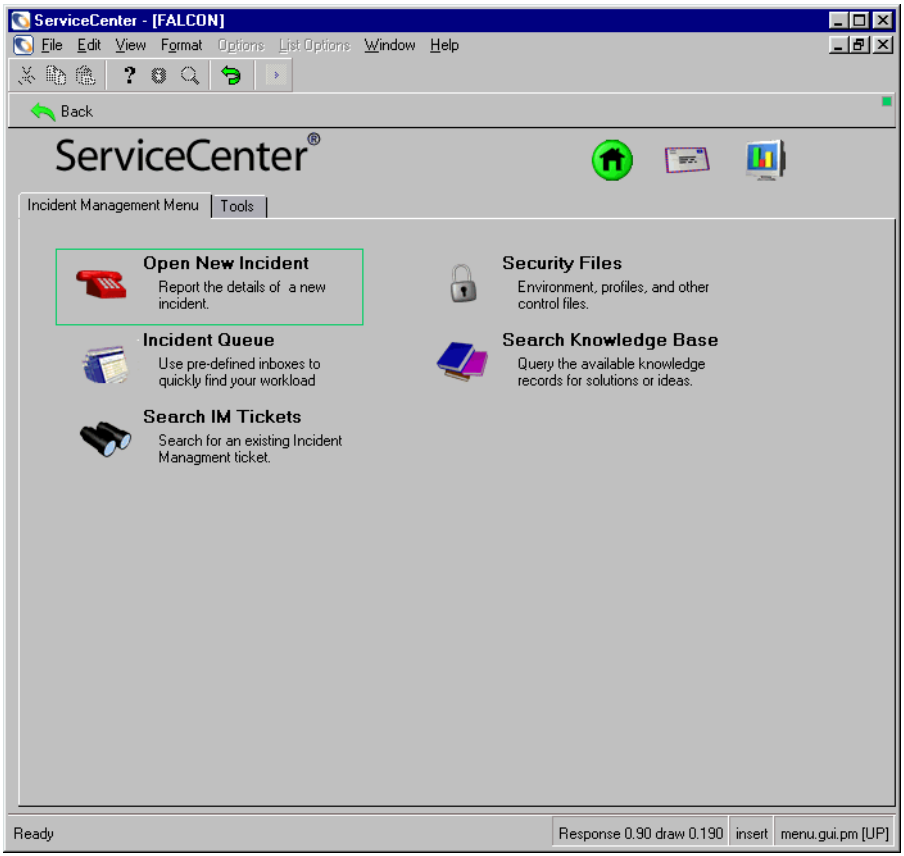


Figure 8-5: Incident Management menu

2 Click **Open New Incident** in the Incident Management Menu.

A blank Incident ticket form displays.

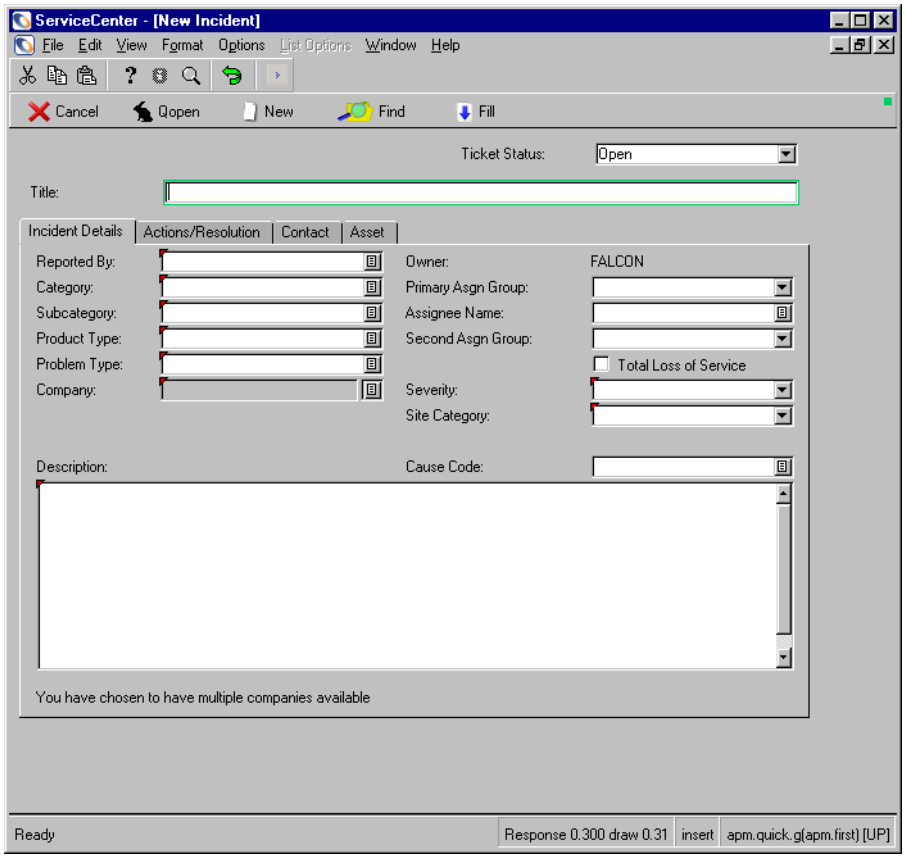


Figure 8-6: Incident ticket form

3 Complete the Incident ticket form. Refer to the *User's Guide* for complete instructions on creating Incident tickets.

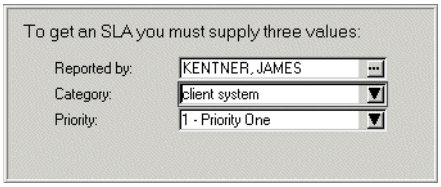
4 Click **Quick Open**.

5 Complete the fields in the SLA information dialog box.

If a required field is not filled in, a message appears in the status bar asking you to fill in the field.

If **Enable Category/Priority mapping** has been selected in the SLA configuration record, the SLA Information dialog box displays.

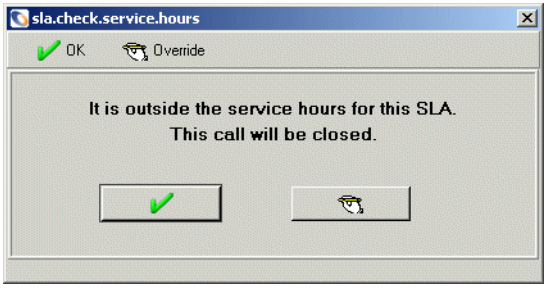
Enter the missing information and click **OK**.



A message in the status bar tells you that the ticket was opened. The system has selected an SLA and fills in the appropriate fields in the Incident ticket. To see the SLA information in the Incident ticket, select the SLA tab. For definitions of the fields in the SLA tab, see the *User's Guide*.

Calls outside service hours

If the caller is not entitled to service at the current time (as specified by the SLA selected), the system notifies the help-desk technician by using the following prompt:



Respond to the prompt in one of the two following ways:

- Click **OK** to close the call.
- Click **Override** to override the system and open the call.

Note: The **Override** button functions only if the **Allow Override of Service Hours Violation** option is selected in the SLA configuration record

SLA Information in Open Tickets

Once a ticket has been opened and the SLA selected, all SLA information displays in the **SLA** tab in an Incident ticket.

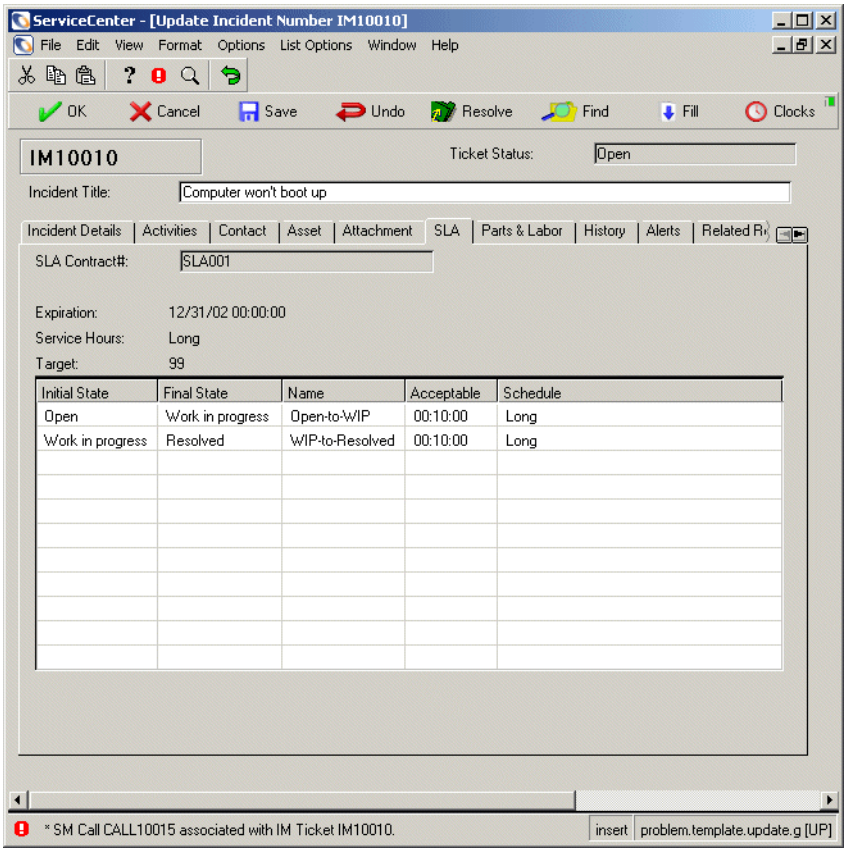


Figure 8-7: SLA tab in an incident ticket

Fields

Field	Description
SLA Contract#	Displays the selected SLA.
Expiration	Expiration date and time of the current SLA.
Service Hours	Hours (time of the day/days of the week) for which the user is entitled to the service guaranteed by this SLA.
Target	Performance percentage guaranteed by this SLA.

Note: All the fields in the **SLA** tab are read-only.

Escalations

Settings in the Configure Module for SLA allow you to escalate incident tickets by availability and response metrics rather than by the normal parameters. If the **Response Escalations** option in the SLA configuration record is selected, the system automatically escalates the alert stages of an incident ticket to the values defined in the **Response Threshold** fields. Refer to the *Application Administration Guide* for details on setting thresholds.

Posting outages

The Incident Management application can be used to post outage information about devices in the system into the SLA module when Incident tickets are opened and closed. The system posts outages both manually and automatically:

Manual Posting

The system displays a table for the selected device in which the user can manually enter the start and stop time of the outage. Use this option to establish the *exact* time of an outage rather than the time the outage was reported. Click **Proceed** to continue the open or close process.

The outage table displays at two different phases of processing a ticket—when the ticket is opened (shown in the following figure) and when it is closed.

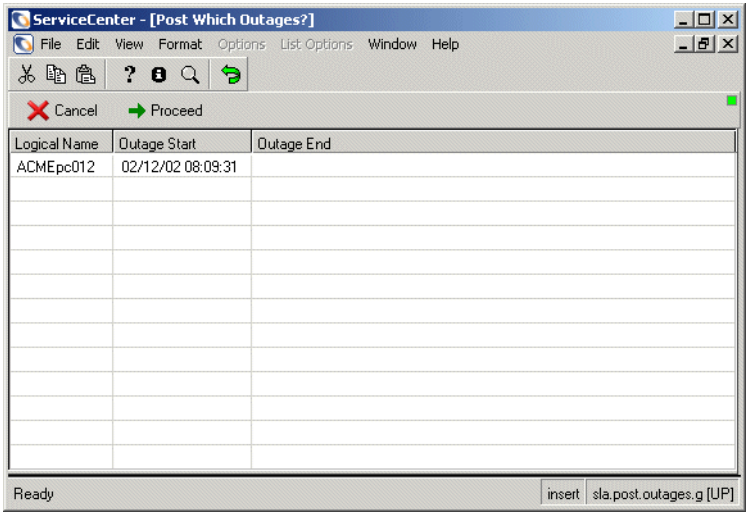


Figure 8-8: Outage posting form—when ticket is opened

Note: The system enters the current time as the default in the manual mode. You may either accept the default or enter the exact time.

Automatic Posting

If the **Auto Post Outages** option in the SLA configuration record is selected, the system automatically posts the outage with the current time (the time the ticket was opened or closed). The outage table is not displayed with this option, and no user interaction is necessary.

Note: The SLA module must be *enabled* before the system can post outages. To turn on the SLA module, select the **Enable Module** check box in the SLA configuration record. Stop your system and restart it to activate the SLA function.

Related outages

If the SLA module is configured to do so (the **Spread Outages** option in the SLA configuration record is selected), the system posts outage records for any *related* device experiencing an outage. Parent/child relationships in the system are defined in the Inventory Management module (see the *System Administrator's Guide*). The posting method for a related device is the same as that for the original device.

Change Management Integration with SLM

In the Change Management application, the SLA module calculates the cost of a particular change based on the object being changed and the scheduled hours of the outage. The system automatically calculates the cost impact of the outage on each affected SLA. This data is an important factor in minimizing the economic impact of planned outages across your system.

Refer to the *System Administrator's Guide* for information on the administration for Change Management.

To view a table of outage cost estimates:

1 Open an existing change record for a particular device.

2 Choose **Options>Affected SLAs.** A table displays itemizing the downtimes of the device and the resultant cost of each outage in three SLAs.

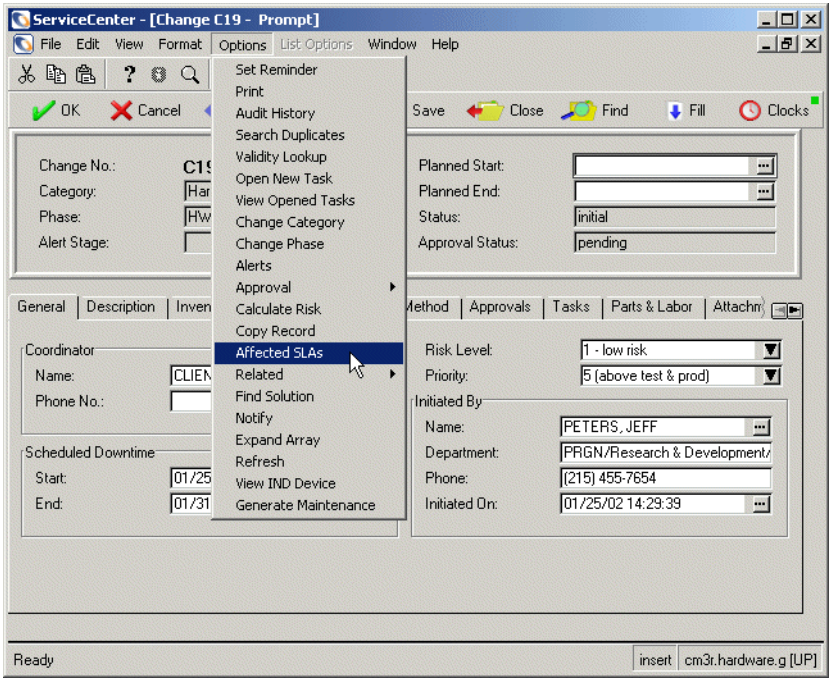


Figure 8-9: Change request—selecting an affected SLA

Note: The Affected SLAs table cannot calculate downtime costs unless the **Downtime Start** and **Downtime End** fields contain valid times. If you have entered Scheduled Downtimes in the change record, those values appear in the appropriate fields in the Affected SLAs calculation table.

If you have not entered times in the change record, you may enter Start and End times for the outage in the Affected SLAs table.

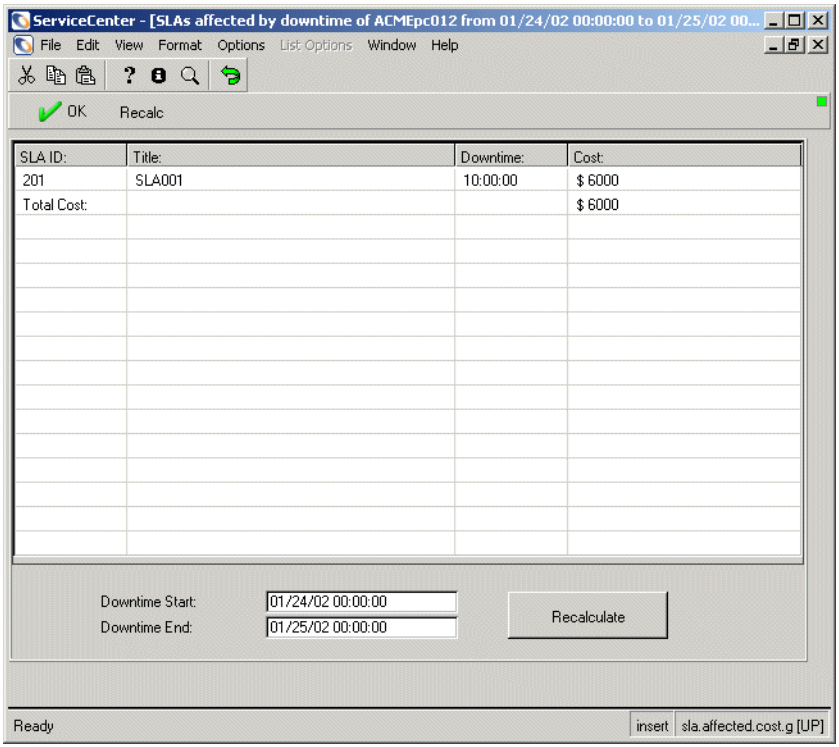


Figure 8-10: SLA cost calculation

3 Click **Recalculate** to recalculate the down time cost if you change the times in the **Downtime Start** or **Downtime End** fields.

4 Sort each column by selecting the appropriate sorting option from the Options menu.

5 Click **OK** to return to the change record.

Inventory Management Integration with SLM

Service level agreements (SLAs) perform two functions in the Inventory Management application:

- Provide a complete outage history of an object (device).
- Provide automated tracking of availability of a device.

Refer to the *System Administrator's Guide* for information on the administration for Inventory Management.

Outage history

Inventory Management receives outage data from the SLA module and displays device records indicating current outage status as well as a complete outage history.

To view outage information from within the Inventory Management application:

1 Click **Inventory Management** in the system administrator's home menu.

The Inventory Management menu displays.

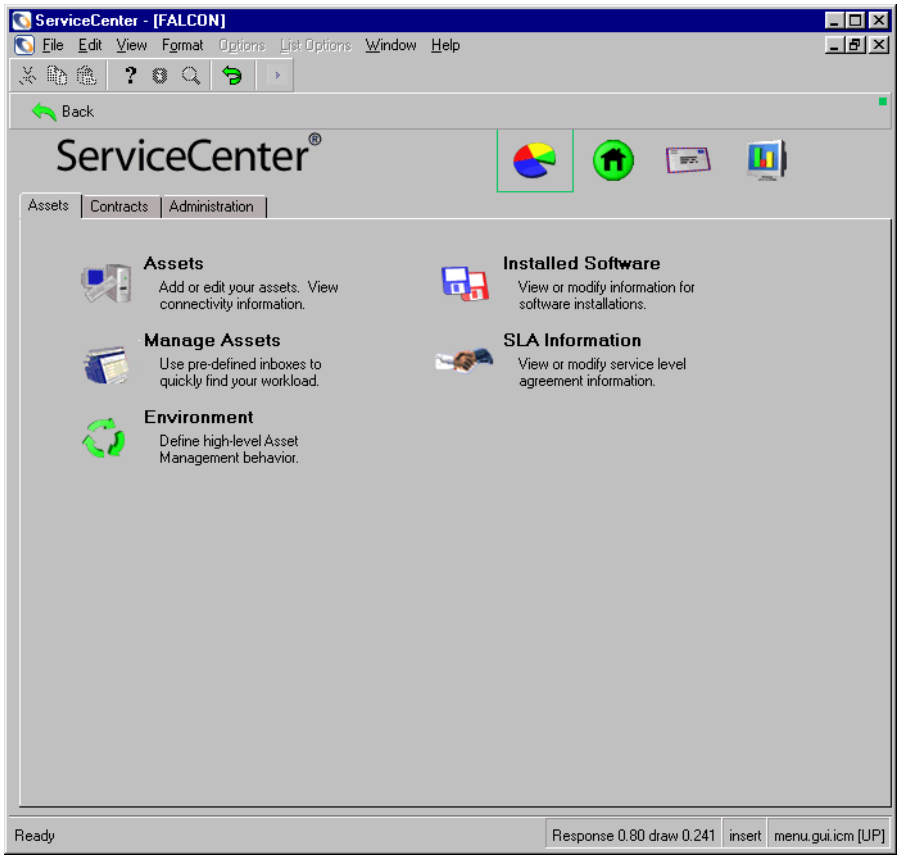


Figure 8-11: Inventory and Configuration Management menu

2 Click **Assets** in the Assets tab of the Inventory Management menu.

A blank device record form displays.

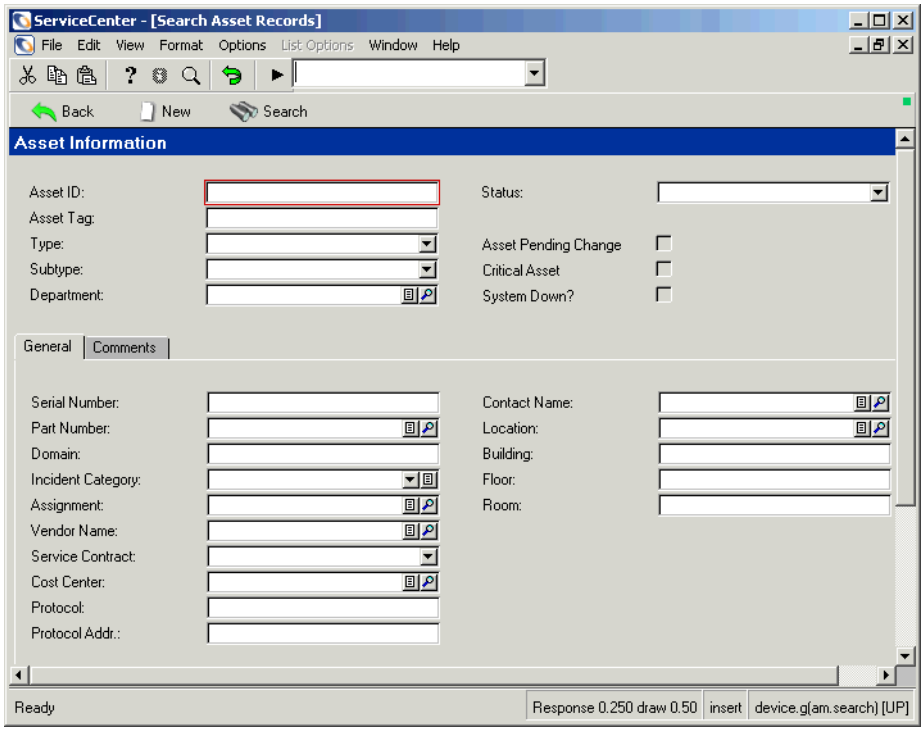


Figure 8-12: Device record search form

3 Enter the name of the device whose record you want to view in the **Asset** field.

4 Click **Search** or press **Enter**.

The complete device record, indicating a current outage, displays. The fields displayed change according to the device.

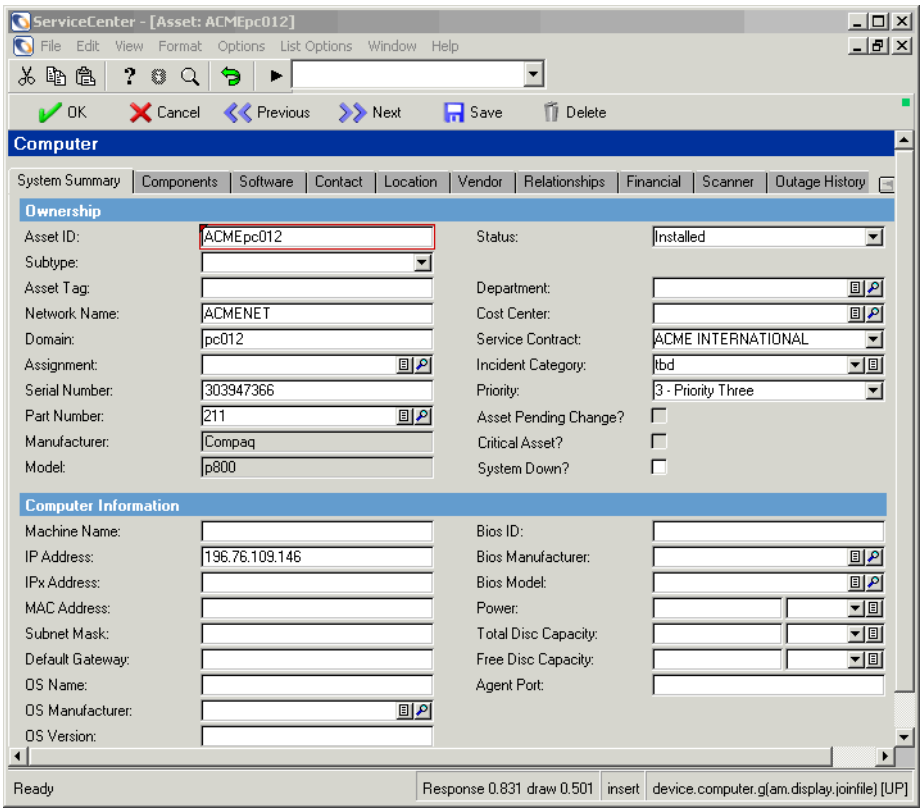


Figure 8-13: Device record

Note: If the **System Down?** check box is selected, the device is currently experiencing an outage.

5 Scroll the tabs to the right to show additional tabs, using the directional button.

6 Select the Outage History tab. The outage history of the selected device displays.

Tracking performance

The Options menu provides access to SLA definitions and metrics from within Inventory Management.

To access SLA definitions and metrics:

1 Click **Inventory Management** in the system administrator's home menu.

The Inventory Management menu displays.

2 Click **SLA Information** in the Assets tab of the Inventory Management menu. The SLA search form displays.

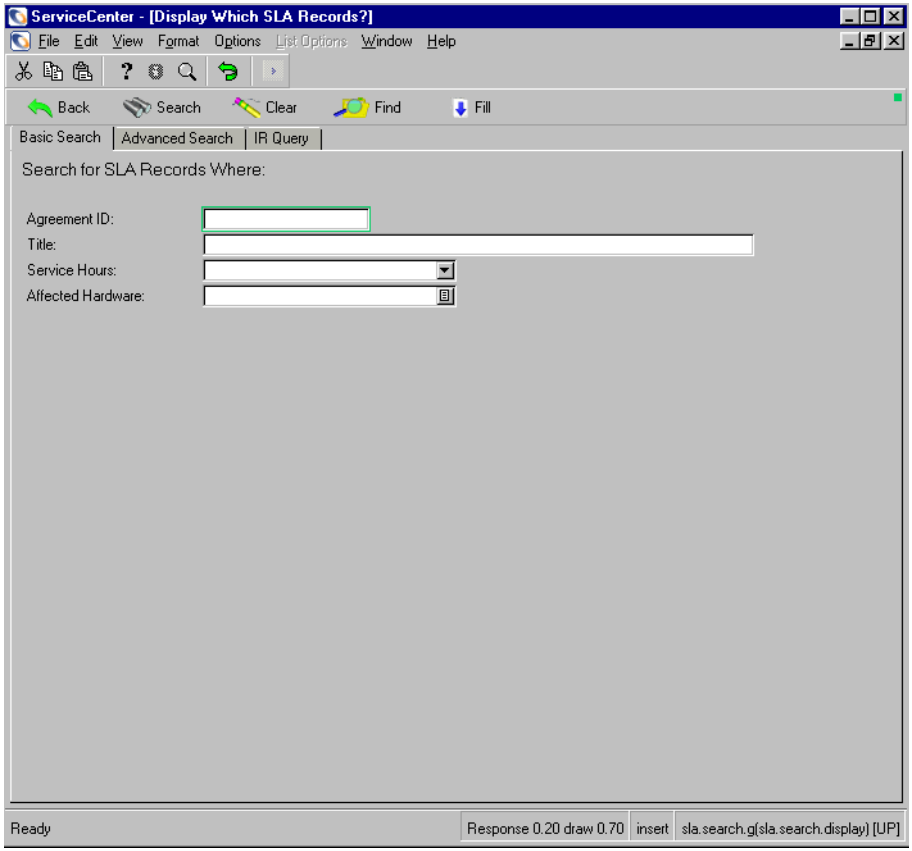


Figure 8-14: SLA search form

3 Enter search information and click **Search** or press **Enter** to display an SLA record list. The first record in the list displays in the SLA form.

4 Click the SLA record in the list that you want to view.

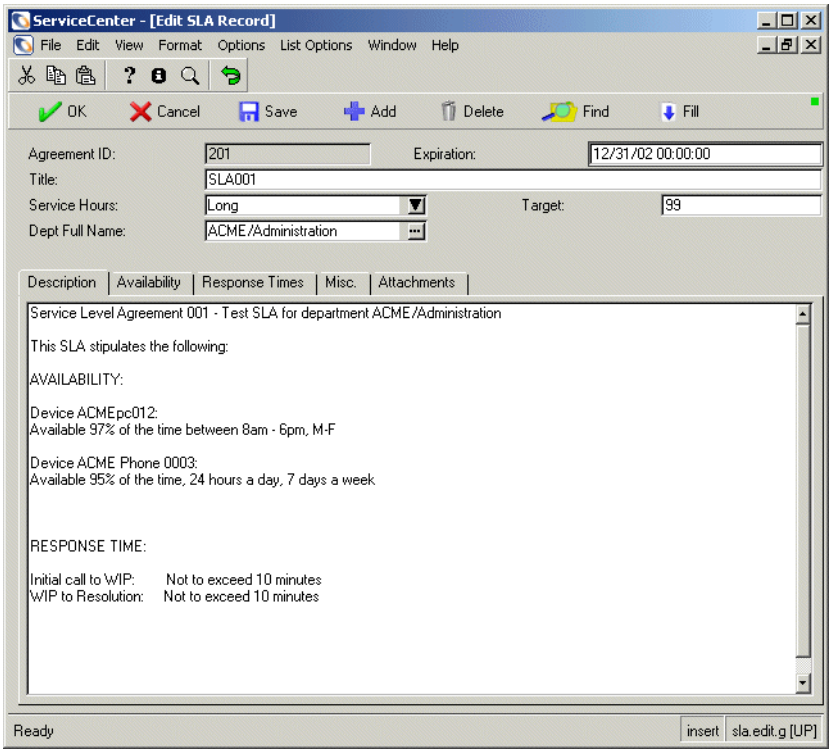


Figure 8-15: SLA record

5 Choose **Options>View Monthly Outages.**

A breakdown of outages for the selected SLA for the current month displays.

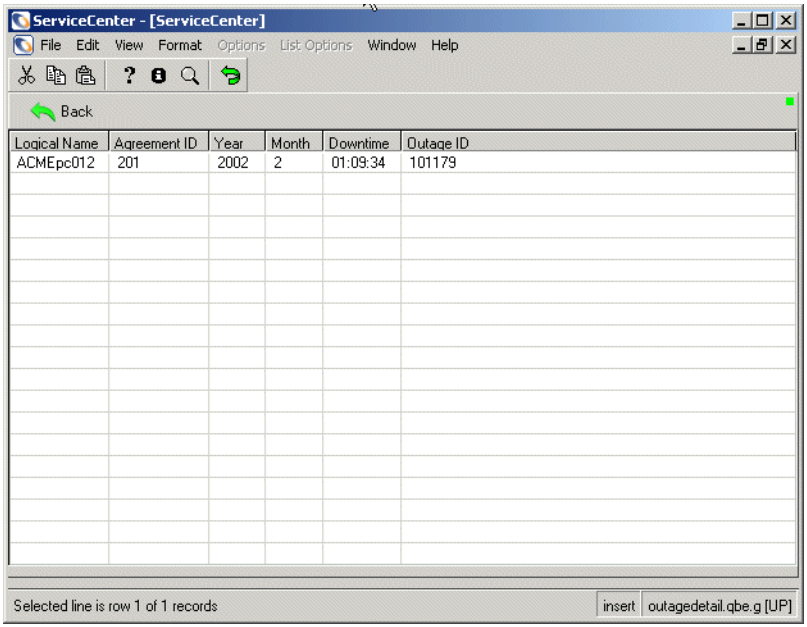


Figure 8-16: Outage record for a selected SLA

6 Click **Back** to return to the SLA record.

7 Select **Options>View Current Availability**.

A graph showing the current availability of all the devices covered by this SLA displays.

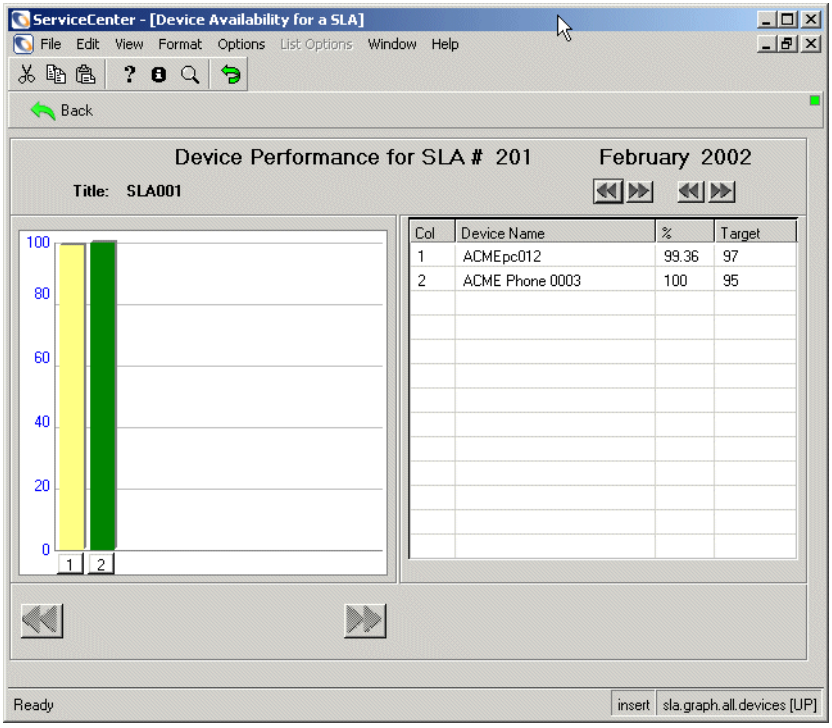


Figure 8-17: Graph of device availability

8 Click **Back** to return to the SLA record.

9 Choose **Options>View Current Response Metrics.**

The response metrics for a single SLA display.

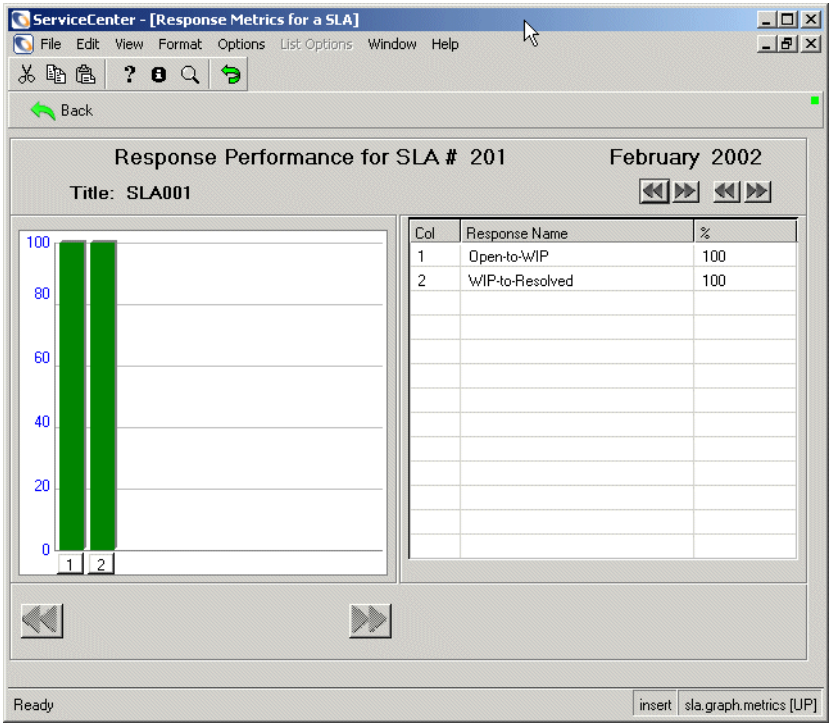


Figure 8-18: Graph of SLA response metrics

10 Click **Back** to return to the SLA record.

11 Choose **Options>View Monthly Availability**.

The monthly availability record for a single SLA displays.

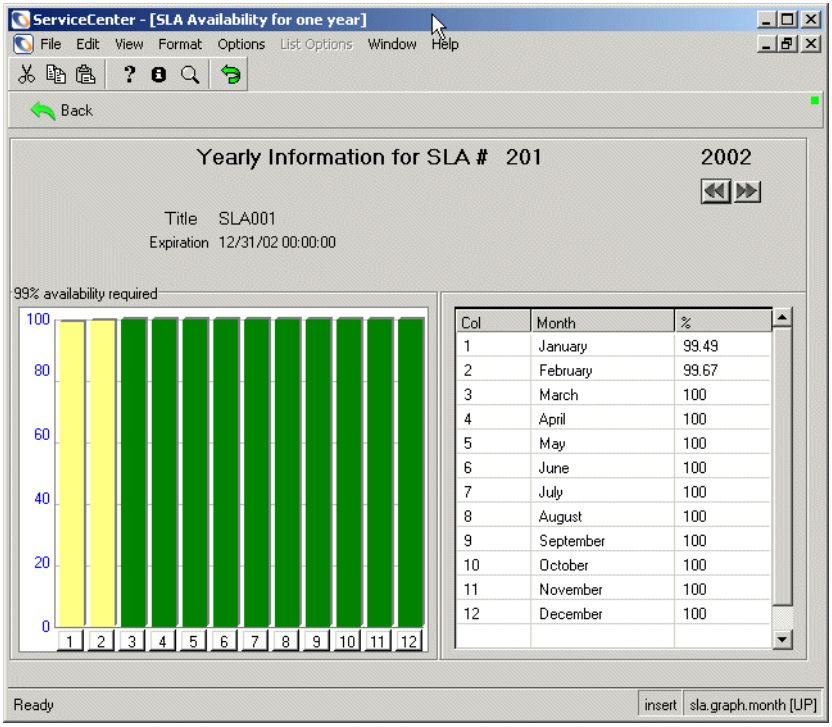


Figure 8-19: Graph of SLA monthly availability

12 Click **Back** to return to the SLA record.

13 Select **Options>View Monthly Response.**

The monthly response metrics record for a single SLA displays.

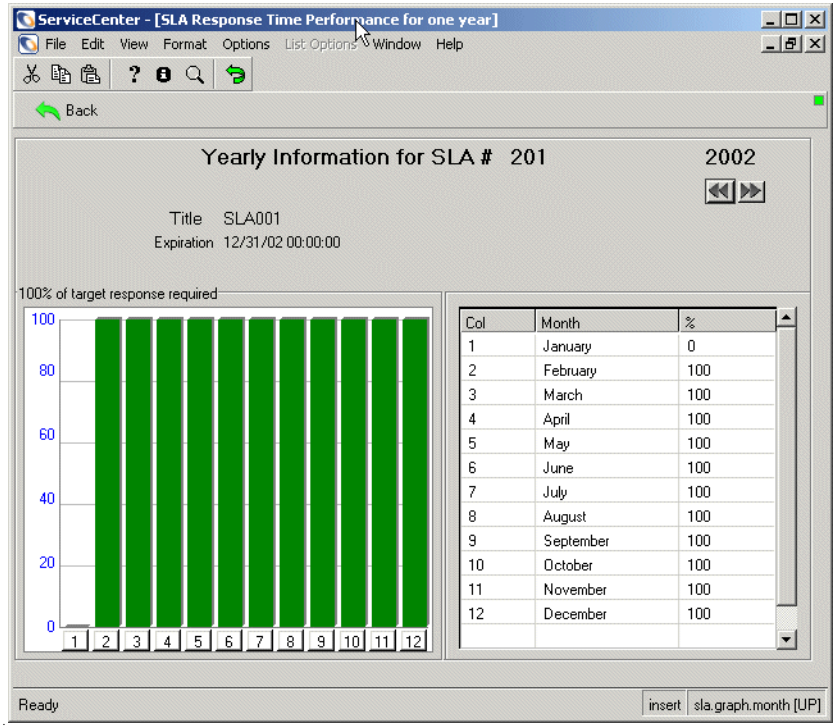


Figure 8-20: Graph of SLA monthly response metrics

14 Click **Back** to return to the SLA record, or click **Return** to return to the Inventory Management Menu.

9 Root Cause Analysis

CHAPTER

Root Cause Analysis helps you to identify the underlying or "root" cause of an incident, and initiate steps to correct that Root Cause with a permanent solution. When the underlying issue has been found, a Known Error record is created to document the solution for future use. Known errors are then used to initiate the Change Management process. This chapter describes how to use Service Center's Root Cause Analysis module.

Root Cause Analysis locates and finds solutions to repeated incidents within the IT infrastructure. To learn more about ITIL standards, see the *Introduction and Best Practices Guide*.

See the following for details and discussion about:

The following terms are used throughout the chapter:

- **Incident**—a call to the service desk that was not immediately resolved and for which an incident ticket has been issued.
- **Issue**—a specific problem that may, or may not, have a set of related incidents.
- **Known Error**—an issue for which the root cause has been diagnosed, and a solution or work-around has been determined.
- **Root Cause**—the underlying cause of an issue for one or more incidents.

The Goals of Root Cause Analysis (RCA)

The main goal of Root Cause Analysis (RCA) is to minimize the effects of system down time or lost productivity caused by errors in the IT infrastructure, and to prevent their recurrence. RCA functions both reactively and proactively. It is reactive in that it is used to resolve situations related to incidents. It is proactive in that it is used to identify issues and solve the underlying causes of those issues and known errors, before incidents occur.

By taking action to prevent incidents, rather than just reacting to them, an organization provides better service, is more efficient, and saves time and money.

The Goals of Root Cause Analysis are:

- To find errors in the IT infrastructure, record them, track their history, find resolutions for them, and prevent their recurrence.
- To record resolutions so that they are quickly and easily available to support, training, and documentation personnel.
- To find needs for improvements in training or documentation, and make the data to fix them easily accessible.
- To reactively resolve situations related to incidents
- To proactively identify issues and solve the underlying causes of those issues and known errors, before incidents occur.

Root Cause Analysis (RCA) and Incident Management

The main goal of Incident Management is to get the customer up and running quickly. This is often done through a work-around, rather than through a permanent solution.

The main goal of RCA is to find the underlying cause and a *permanent solution* that prevents future incidents. This takes more time initially, but causes service to improve over time.

Root Cause Analysis is related to Incident Management in several ways.

- Root Cause records can be opened from Incident Tickets.
- Details and histories included in Incident records are used for analysis purposes. RCA cannot function effectively without those details.
- Incident records are linked with RCA records.
- The knowledge base that is built and maintained in RCA supplies solutions for Incident tickets.

Life Cycle of a Root Cause Record

If an Incident ticket pertains to a recurring issue, the help desk opens a Root Cause record. The life cycle of a Root Cause record is as follows:

1. A user creates a Root Cause record. (This can be done when opening an Incident ticket.)
2. RCA takes Root Cause details from the Incident ticket, configuration details from Inventory Management, any known workarounds from other sources and adds them to the record.
3. Users save gathered information and solutions in the RC record.
   - If the incident has not been resolved, the Root Cause (RC) is updated.
   - When a work-around or solution for a Root Cause or issue has been found, RCA generates a Known Error.
   - If a solution has been found, RCA generates a Request for Change and closes the record.
4. RCA updates related Root Cause and Known Error records.
5. After generation, Known Errors must be permanently resolved through Change Management.

How Root Cause Analysis Works

The Root Cause Analysis lets you view related incidents and Known Error records from within the module. These associated records can be selected and opened directly from the list view.

Root Cause records are assigned *categories* to help classify the information being stored. For example, a Root Cause record describing a server stores different information than a Root Cause record for a printer.

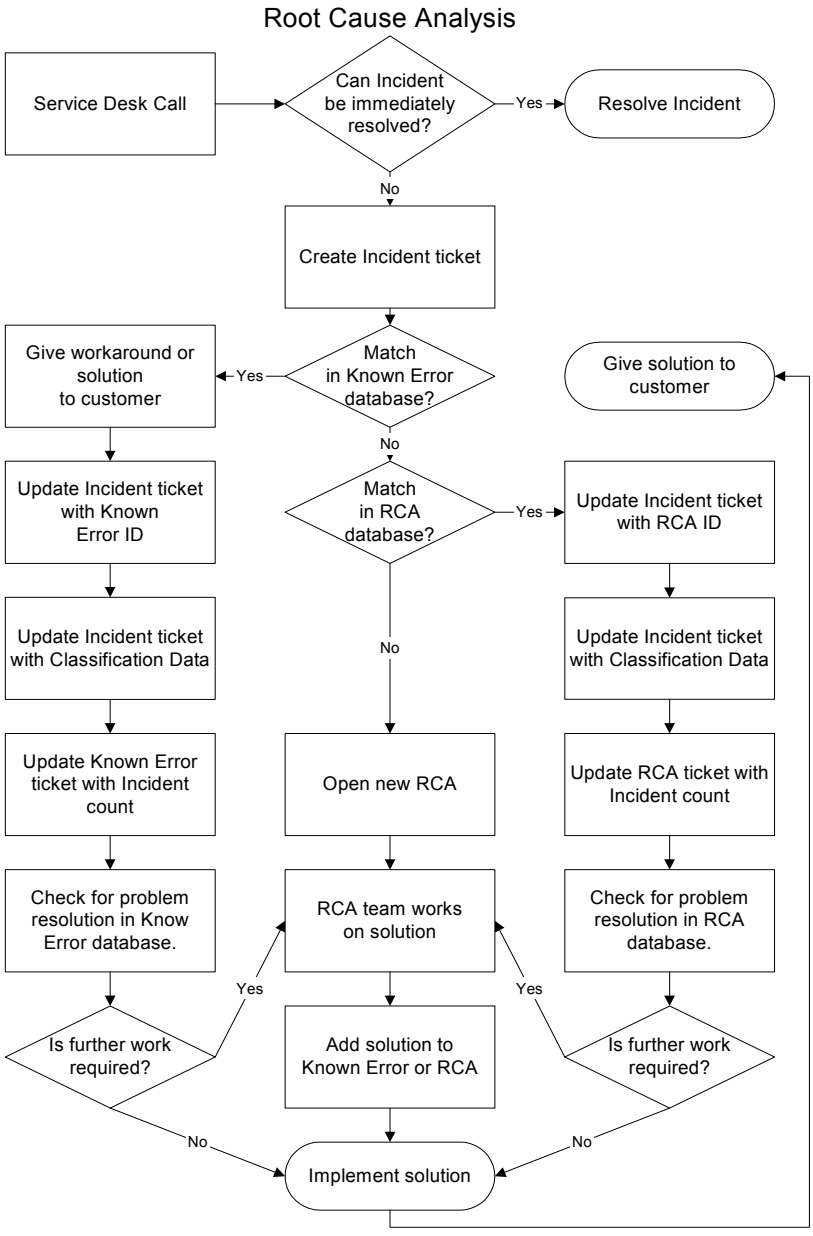
The appropriate personnel can escalate and reassign Root Cause records. The system can also automatically issue alerts and escalate a Root Cause that is not getting resolved.

Root Cause records can be:

- Opened for any incident reported.
- Sent automatically to the proper system personnel.
- Tracked and resolved by the personnel and system managers.
- Sent by e-mail or fax to the user with a resolution to the reported Root Cause.

Root Cause Analysis Flow

This workflow can be changed by modifying ServiceCenter scripts to meet your business process flow.



Access Root Cause Analysis (RCA)

Root Cause can be accessed from the System Administrator's home menu, or from any ServiceCenter Application queue, including Service Management, Incident Management, Change Management, and Request Management.

You can access Root Cause Analysis for administrative purposes from the Central Administration Utilities menu, or from the Root Cause section of the System Administrator's home menu.

The Central Administration Utilities menu allows a system administrator to access the operator's record for user and contact information, application profile privileges and the Mandanten utility. This allows the administrator to control and access several users or a group's access from one central location, rather than having to control access from within each application or utility.

To learn more about Central Administration Utilities, see the *System Administrator's Guide*.

Access Root Cause from the System Administrator's Home Menu

The System Administrator's home menu allows you to access the Root Cause Analysis home menu. The buttons on the Root Cause Analysis menu allow you to open new Root Cause records, access existing records, search Root Causes and the Knowledge base, as well as configure the module.

To access Root Cause Analysis from the System Administrator's home menu:

- Open the System Administrator's Home menu and click Root Cause Analysis.

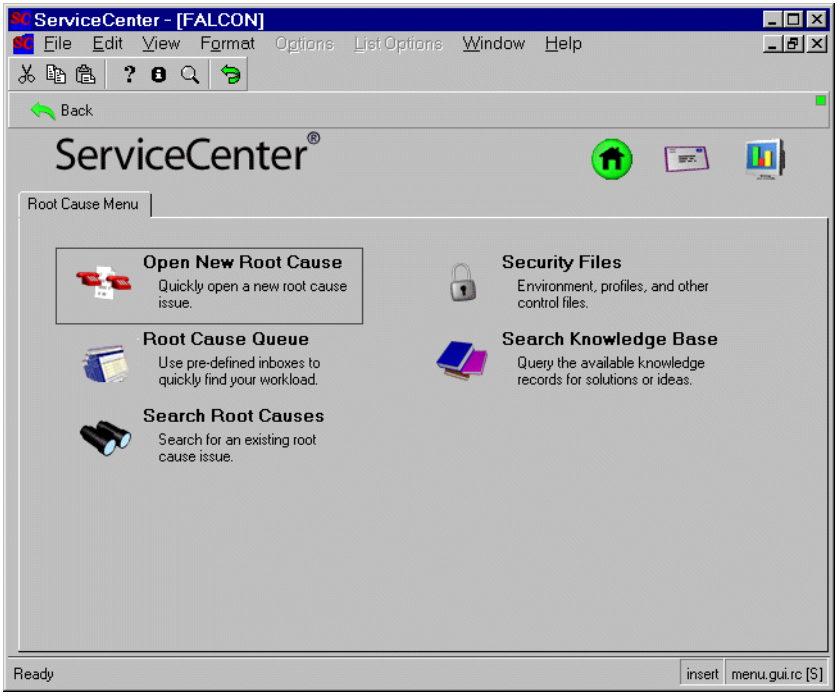


Figure 9-1: Root Cause Menu

Root Cause Menu

The Root Cause menu allows you to Open a new Root Cause, View the Root Cause Queue, Search the Root Cause database, Administer Security Profiles and Search the Knowledge base.

- To open a new Root Cause, click Open New Root Cause. For more information on opening a new Root Cause, see *Open a Root Cause Record* on page 391.
- To search the Root Cause database, click Search Root Causes. For more information on searching the Root Cause database, see *Search Root Cause Analysis* on page 401.

- To access the Root Cause Queue, click Root Cause Queue. For more information on the Root Cause Queue, see *Root Cause Queue* on page 385.
- To administer Security Files, click Security Files. For more information on administering security files, see the *Application Administration Guide*.
- To search the Knowledge base, click Search Knowledge base. For more information on searching the Knowledge base, see *Knowledge Base - Diagnostic Aids* on page 561.

Access Root Cause Analysis from Other ServiceCenter Applications

Most user interaction in Root Cause Analysis takes place in the **Root Cause Queue**. From the Root Cause Queue, you can open, update, and close Root Cause records.

You can access the Root Cause queue from any ServiceCenter application that has the **Root Cause List** button on its queue screen. These include Service Management, Incident Management, Change Management, and Request Management.

Note: You can also access the Root Cause queue by choosing **Options>Related>Root Causes** in the above-mentioned ServiceCenter applications.

For this example, we access the Root Cause Inbox from Incident Management, but the same instructions apply to the other applications.

To access the Root Cause Queue:

1. Open the Incident Queue. For instructions on how to open the Incident Queue, see *Accessing the Incident List Inbox* on page 203.
2. To open the Root Cause Inbox, click **Root Cause List**. The Root Cause Analysis inbox displays.

Root Cause Queue

From the Root Cause Queue, you can open a new Root Cause, search the Root Cause database, and view and edit existing Root Cause records.

- To open a new Root Cause, click New. For more information on opening a new Root Cause, see *Open a Root Cause Record* on page 391.
- To search the Root Cause database, click Search. For more information on searching the Root Cause database, see *Search Root Cause Analysis* on page 401.
- To view or edit a record in the Root Cause list, double-click the line item. For more information on using the Root Cause Queue, see *Root Cause Queue* on page 385.

Root Cause Queue Buttons

Each of the ServiceCenter queues contains a series of buttons, providing quick access to other ServiceCenter applications and queues. The application opened with a button displays if you place your pointer (mouse) over that button. The buttons are the same in each queue, except for a few that are specific to the application.

Root Cause Options Menu

The Root Cause **Options** menu provides shortcuts to other ServiceCenter applications, and access to Root Cause Analysis, Search, and Root Cause functions. When you are in Root Cause, the **Options** menu contains:

Option	Description
Select Queue	Brings up a dialog box and gives you the opportunity to change the queue you are in. Make your selection, and then click OK.
Switch Queue	Allows you to switch to a different application queue. The following selections are available. ■ **Inventory Management**—accesses Inventory Management. ■ **Quote List**—accesses the current user's Quote List (Request Management inbox). ■ **Order List**—accesses the current user's Order List (Request Management inbox). ■ **Line Item List**—accesses the current user's Line Item List (Request Management inbox). ■ **Call List**—accesses the current user's Call List (Service Management inbox). ■ **Incident List**—accesses the current user's Incident List (Incident Management inbox). ■ **Change List**—accesses the current user's Change List (Change Management inbox). ■ **Task List**—accesses the current user's Task List (Change Management inbox).
New	Accesses a new Root Cause record form.
Search	Accesses the Root Cause Analysis search function.
Refresh	Updates the current list.
Switch Inbox	Displays a dialog window to select another inbox. Functions the same as the **Switch Inbox** button.
Edit Favorite Inboxes	Edit your favorites list to add or modify your most frequently accessed inboxes.
Use Stored Query	Access a QBE list of stored queries.
Starting Lists	Displays the initial Call List.
Count	Tallies the number of records in the Call List.

Root Cause List Options Menu

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

List Option	Description
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 Root Cause 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.
Export to Text File	Exports the current Root Cause List to a text file. Enter the path and file name of the text file you want to be used. If no path is specified, the file is created in the directory the Service Center Client was launched from. This option is not part of the DDE support and can be run from clients other than those operating in Windows.

Root Cause Records

This section describes how to open, update, and close Root Cause Records. The following is discussed.

Paging

As Root Cause tickets are updated and closed, a new record (or page) is created for each ticket. New records, also called pages, are created by the Root Cause Analysis **paging** feature. To read about enabling and disabling paging, see the discussion in the ServiceCenter *System Administrator's Guide*. When a Root Cause ticket is accessed, the most recent page (or record) is displayed.

Priority

The priority of a Root Cause record indicates the severity of the root cause, so it is critical that the correct priority be set according to the severity of a known error for each root cause. Priorities are set by the user when a Root Cause record is opened. The priority of a ticket can be changed by the user as a Root Cause (RC) ticket gets updated.

The priority of an RC is determined by its impact and urgency, meaning the potential for damage to the IT infrastructure of the company. This potential must be addressed for all RCs. When determining the impact of an RC, pay attention to the following:

- volume of incidents
- number of customers impacted

- cost to the business
- duration and cost of the resolution

Urgency refers to the time available to reduce the impact. RCs are less urgent if a temporary fix or work-around is available, or if delayed resolution is planned.

Root Cause Record Fields

It is not necessary that you fill in all the fields in a new Root Cause record. Some fields are automatically filled in by ServiceCenter, and some is filled in during later updates.

General tab

The General tab allows the user to enter information about the issue and any related incidents.

Field	Description
Root Cause ID	A unique Root Cause record number is automatically assigned by ServiceCenter.
Category	Classify asset's category within the business, such as *network*.
Subcategory	Classify asset's subcategory within the primary category, such as *lan*.
Problem Type	Type of problem being reported. If the **Company** field is filled in first, then this is filled in automatically.
Product Type	Device product type. If the **Company** field is filled in first, then this is filled in automatically.
Company	Name of the company reporting the issue. **Note:** Filling in the Company information first helps the auto fill to work for the **Problem Type** and **Product Type** fields.
Asset ID	Device having the problem.
Type	Type of device. If you selected the Asset ID from the browse list, this is auto-filled.
Model	Device model. If you selected the Asset ID from the browse list, this is auto-filled.
Critical Asset	Primary asset involved.

Field	Description
Status	Status of the Root Cause record. ■ Open—ticket currently active. ■ Closed—ticket resolved. ■ Reopened—ticket currently active - was closed previously.
Severity	Severity of the issue reported.
Priority	Priority of the Root Cause record. If you selected the Asset ID from the browse list, this is auto-filled. The priority is entered in the **Priority Code** field of the initial Root Cause form: ■ Major ■ Medium ■ Low ■ Very Low
Assignment Group	Group assigned to work on the issue.
Assignee	Designated person to work on the issue.
Owner	The person responsible for the ticket and the person to be contacted when the issue is resolved.

Description tab

Field	Description
Brief Description	Brief (one line) description of the related incident or issue, or other identifying information.
Description	Full description of the related incident or problem, including all new information from updates.
Updates	Updates made since the Root Cause record was initiated. (Only available on an existing record.)

Root Cause tab

The Root Cause tab is where you enter the Root Cause, once determined.

Field	Description
Root Cause	True cause of the issue or problem described in the **Description** field is entered here, once it has been found.
Work-Around	Solution used to resolve an issue.

History tab

The History tab contains the history of the Root Cause. The History tab is not editable. It contains only system stamped fields, indicating the activity date and time, and by whom.

Field	Description
Opened	Date record was opened.
Last Updated	Date record was last updated.
Closed	Date record was closed.
Re-Opened By	Date record was re-opened.

Related Records tab

Field	Description
Incidents	Lists all incidents related to this Root Cause record, giving you access to open the related incident tickets.
Changes	Lists all changes related to this Root Cause record, giving you access to open the related change tickets.

Open a Root Cause Record

Root Cause records can be opened from the Root Cause menu, from the Incident Queue, or from the List Options menu when an existing Root Cause record is open.

To open a new Root Cause record:

1 Open the Root Cause Queue, the Root Cause Menu, or an existing Root Cause record.

2 Click **Open New Root Cause** (on the Root Cause Menu and the Root Cause Inbox).

For instructions on how to open the Root Cause Inbox, see *Access Root Cause Analysis from Other ServiceCenter Applications* on page 384.

For instructions on how to open the Root Cause menu, see *Access Root Cause from the System Administrator's Home Menu* on page 382.

-or-

If you are already in an existing Root Cause record, open the List Options menu and click New.

For instructions on Editing an existing Root Cause record, see *Update a Root Cause Record* on page 393.

3 A Root Cause record open form displays with the Root Cause record number automatically assigned by ServiceCenter.

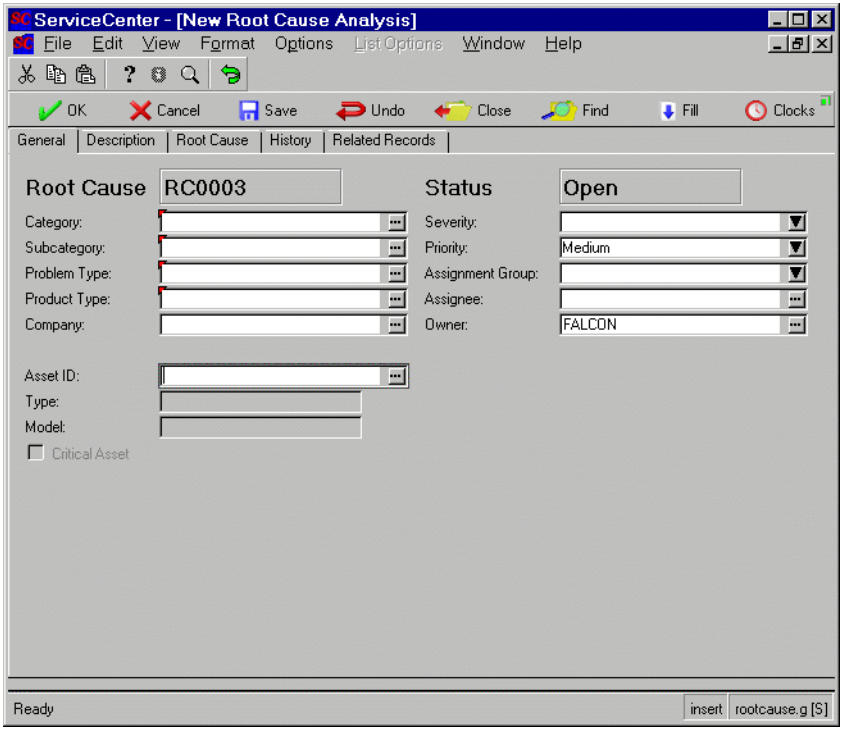


Figure 9-2: Root Cause Open

4 Select the appropriate owner from the **Owner** fill (ellipsis) box.

5 The **Status** field automatically reports this ticket at an *Open* status.

6 Enter a one line description of the related incident or problem, or other identifying information in the **Brief Description** field.

7 On the General tab, select the Asset ID from the **Asset ID** fill (ellipsis) box. This causes the **Type**, **Model** & **Priority** fields to be filled automatically. Check for accuracy.

8 Select a category from the **Category** drop-down list

9 Enter a full explanation of the issue or problem in the **Description** box.

10 Enter other information you have about the Root Cause in the other fields.

11 Click **Save.**

Update a Root Cause Record

To update an existing Root Cause record:

1 If you are in one of the ServiceCenter applications, click **Root Cause List** to access the Root Cause Analysis Queue for the option to access the RCA.

-or-

If you are logged in as an administrator, click **Search Root Causes** on the System Administrator home menu to access a search form.

2 Find the Root Cause record you want to update:

- **a** Double-click on the desired Root Cause in the Root Cause Analysis list.
- **b** Use the search function to locate the Root Cause record. Refer to *Search Root Cause Analysis* on page 401.
  - If you know the ticket number, enter that number in the **Number** field. If you have **Smart Search** selected, you need only enter the number. If you do not have Smart Search activated, you must enter the Root Cause record prefix (RC), for example, `RC109`.
  - If you do not know the number, enter any information you know about the ticket in the appropriate fields. This narrows the search parameters for the ticket.

3 Modify any fields that require updating in the Root Cause General description tab.

For example, you could change the **Priority** of the Root Cause if it has changed since the Root Cause was first reported. Click the Arrow or arrow keys to choose a new setting.

4 Enter any new information about the root cause under **Brief Description** field.

5 If the true cause of the issue or problem has been found, click the Root Cause tab, and enter the cause, a work-around, and the solution in the Root Cause box, and close the ticket. (For more information, see *Close Root Cause Records and Known Errors* on page 394).

6 Click **Save** to save and remain in the ticket, or click **OK** or press **F2** to save and be returned to the queue.

A message displays in the status bar stating *Root Cause RCxxx has been updated*.

Close Root Cause Records and Known Errors

When a work-around for a Root Cause has been discovered, the record can be closed. This does not delete the record from the file, but can change the record to a Known Error. The Known Error is then closed when a permanent solution to the problem is found.

To close a Root Cause record:

1 Access the Root Cause record you want to close by:

- Double-clicking on the desired root cause in the Root Cause list.
- Using the search function to locate the Root Cause record.
- If you know the ticket number, enter that number in the **Number** field. If you have **Smart Search** selected, you need only enter the number. If you do not have Smart Search activated, you must enter the Root Cause record prefix (RC), for example, `RC109`.
- If you do not know the number, enter any information you know about the ticket in the appropriate fields. This narrows the search parameters for the ticket.

2 Click the Root Cause tab and enter the work-around in the Root Cause box. Enter the permanent solution or the true cause of the issue or problem as well, if known.

3 Click Close, or press **F6**, to close the Root Cause.

4 Click **Save**.

5 A dialog box displays with a question that asks if you want to open a Known Error for this root cause. If the root cause is a problem with the infrastructure, click Yes. If the root cause is procedural, click No. If you click yes, the root cause is flagged as a Known Error for future reference. You are returned to the Root Cause form.

The label on the form, in the upper left part of the form, is now K*nown Error* rather than R*oot Cause*.

To close a Known Error:

1 Access the Known Error ticket you want to close by:

- Double-clicking on the desired Known Error in the Root Cause List.
- Using the search function to locate the Known Error ticket.
- If you know the ticket number, enter that number in the **Number** field. If you have **Smart Search** selected, you need only enter the number. If you do not have Smart Search activated, you must enter the Root Cause record prefix (RC), for example, `RC109`.
- If you do not know the number, enter any information you know about the ticket in the appropriate fields. This narrows the search parameters for the ticket.

2 Click the Root Cause tab and enter the permanent solution and the true cause of the problem.

3 Click **Close**, or press **F6**, to close the known error.

4 If you want to open a Request for Change.

a Click **Options**>**Related**>**Changes**>**Open**.

b Select **RFC** or **RFC - Advanced** from the category list.

c Fill out the form. For more information on RFCs, see *Using Change Management* on page 419.

5 Save the Change and click **OK** to return to the Root Cause form.

Root Cause Options

This section explains the Root Cause Options menus. It is divided into the following parts.

Options Menu—New Root Cause Record

The Options menu changes depending on what form is visible. In some cases, more than one Options menu is visible. When you are opening a new Root Cause record, the **Options** menu contains these options:

Field	Description
Set Reminder	Allows you to set up a reminder to be sent to you at a specified time through e-mail, a page, or a pop-up message. This option is discussed in detail in *Set a Reminder* on page 398.
Clone	Copies the current Root Cause record and places the data in a new Root Cause record.
Find Solution	Accesses the Knowledge Base to search for possible solutions to the Root Cause. See *Knowledge Base - Diagnostic Aids* on page 561 for more information.

Options Menu—Existing Root Cause Record

When you are updating an existing Root Cause record, the **Options** menu contains the following options (similar to the call report options.) Some of these options are described in more detail in other sections.

Field	Description
Set Reminder	Allows you to set up a reminder to be sent to you at a specified time through e-mail, a page, or a pop-up message. This option is discussed in detail in *Set a Reminder* on page 398.
Print Record	Prints this Root Cause record to the user's default ServiceCenter printer.
Clone	Copies the current Root Cause record and places the data in a new Root Cause record.
Related>Incidents >Associate	Allows you to associate this Root Cause record to an Incident ticket. This option is discussed in detail in *Related Records* on page 399.
Related>Incidents>View	Allows you to view the associated Incident ticket. This option is discussed in detail in *Related Records* on page 399.
Related>Incidents>Open	Allows you to open the associated Incident ticket. This option is discussed in detail in *Related Records* on page 399.

Field	Description
Related>Changes >Associate	Allows you to associate this Root Cause record to a Change Request. This option is discussed in detail in *Related Records* on page 399.
Related>Changes>View	Allows you view the associated Change Request. This option is discussed in detail in *Related Records* on page 399.
Related>Changes>Open	Allows you to open the associated Change Request. This option is discussed in detail in *Related Records* on page 399.

List Options Menu—Existing Root Cause Record

When you are updating an existing Root Cause record and are using Record List mode, the **List Options** menu is visible. (The same options are available from the Options menu if you are viewing a QBE list and do not have Record List mode active.) The **List Options** menu contains the following options.

Field	Description
Count	Counts the number of records in the current QBE Record list.
Print List	Allows you to print a copy of the current QBE Record list.
Refresh List	updates the current list.
Save List as Inbox	Allows you to save the current list as an inbox.
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.
Export to Text File	Exports the QBE Record list to a text file. Enter the path and file name of the text file you want to be used. If no path is specified, the file is created in the directory the Service Center Client was launched from. This option is not part of the DDE support and can be run from clients other than those operating in Windows.
New	Displays a blank form for opening a new Root Cause record.

Set a Reminder

From a new or existing Root Cause record, you can schedule a reminder to be sent to you at a specified time.

To access the Set Reminder feature:

1 With an existing Root Cause record displayed, choose **Options>Set Reminder**.

The Set Reminder form displays.

2 There are two options for setting the time when the reminder occurs.

- a Select **Remind At** to set a reminder for a particular day and time.
- b Select **Remind In** to set the reminder to occur at a particular interval. This options brings up two fields; enter the time interval, and select the shift you are working from the drop-down list.

3 Click **Fill** to bring up the ServiceCenter Calendar. You can use the calendar to select the date and time you want the reminder to occur.

- a Enter the time in the **Time** field. Click on the day you want the reminder to occur. The dialog box closes and the information is filled into the **Remind At** field.
- b To move forward or backward, click the Arrow buttons at each side of the month and year.
- c To return to today's date, click **Goto Today**.
- d To go to a specific date, click **Select Date** and type the date in the dialog box displayed. Click **OK** to accept the entry and return to the Calendar. Clicking the back arrow returns you to the Calendar with no change

4 In the **Remind if** field, select an option from the drop-down list:

- Always (the default).
- Root Cause has not been updated.
- Root Cause is still open.
- Root Cause is still assigned to me.

5 In the Pop-up Message area, select the type of notification:

- Pop-up
- Page
- Email
- SCMail

If you select Pop-up or Page, type the message in the **Message** field that you want to display in the reminder.

Choosing **Email** or **SCMail** displays two **Message Type** option buttons. Select the type of e-mail message you want sent. There is also a **Title** field where you can enter a title for the e-mail message.

6 Select the type of e-mail you want sent:

- **Send Record**. This option includes a copy of the Root Cause record in the e-mail.
- **Fixed Text**. This option displays a field in which you can type the message you want to display in the e-mail message.

7 When you have made all your selections, click **OK**.

The initial Root Cause record from which you set the reminder displays.

Related Records

The Options menu allows you to create an association between existing records, view a list of associated records, and open new associated records. The Root Cause records **Options** menu allows you to work with Incident tickets; the Known Errors Options menu allows you work with Change records as well as Incident tickets.

Associating Records

Root Cause records can be associated with Incident tickets, and Known Errors can be associated with Incident tickets and with Change records.

Before associating a Root Cause record with another record, make note of the ID number of the Incident you want to relate it too. You need to enter this number in the following process.

In the following example, we associate a Root Cause with an Incident. The procedure is the same for associating other types of records.

To associate a ticket with another record:

1 Access the Root Cause record.

2 Choose **Options>Related>Incident>Associate**.

A dialog box displays with the following question:

Associate Root Cause RCxxxx with which Incident?

3 Type the Incident ID number. Type the number in the form of IM*xxx*, where *xx* is the incident number.

-or-

Click Search to select a RCA record and enter the number after selection.

4 Click **OK**. A confirmation message displays in the status bar.

Opening a Related Record

You can open an Incident ticket from a Root Cause record. You can open Incident tickets and Change records from a Known Error.

In the following example, we open a Change from a Known Error. The procedure is the same for opening other types of records.

To open a related record:

1 Open an existing Known Error. Refer to *Search Procedures* on page 401 for help in accessing an existing Known Error.

2 Choose **Options>Related>Change>Open**.

3 The Change Select Category form displays. Select Request for Change and fill out the form. For more information on RFCs, see *Using Change Management* on page 419.

4 Save the related record. Click **OK**. You are returned to the initial Known Error record.

Viewing Associated Records

You can view and edit an Incident ticket from a Root Cause record. You can view and edit Incident tickets and Change records from a Known Error.

In the following example, we view an Incident from a Known Error. The procedure is the same for associating other types of records.

To view an associated record:

1 Open an existing known error. For help in accessing an existing known error, refer to *Search Procedures* on page 401.

2 Choose **Options>Related>Incident>View**.

A list of related Incidents displays.

3 Double-click on an Incident to view the details. The ticket opens. You can edit the Incident ticket from here, as well as resolve the ticket.

Search Root Cause Analysis

This sections describes how to search the Root Cause database. It is divided into the following parts.

Search Procedures

Root Cause Analysis allows you to search for Root Cause record records. The records are displayed in a Root Cause List. You can also save these queries as inboxes. Inboxes are discussed in *Using Inboxes* on page 82. The search form fields allow you to narrow the search parameters. The procedures for searching in Root Cause Analysis are discussed in *Search Procedures* on page 401.

Three types of searching are available for the Root Cause database. They are the Basic Search, Advanced Search, and IR Search. Use Basic Search to search for RCA records by various key criteria. Use Advanced Search to search for records opened, updated, or closed within a certain time frame. Use IR Search to search for text within records.

To search for Root Cause records:

1 Click **Root Cause Analysis** (or **Queue**).

The Root Cause record queue displays.

2 Click **Search**.

A Search form displays.

3 Enter any **Basic Search** information you know. The more information you enter, the narrower the search parameters. For more information on filling the basic search tab, see *Basic Search tab* on page 403. You can leave any or all fields blank. For fastest searching, use the fields identified as key (indexed) fields at your site. If these are not clearly identified on the form, ask your ServiceCenter administrator for a list of key fields.

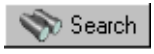
   Use one of the following options to fill in the fields:

   - Type known information.
   - Click **Fill**, or press **F9**, to access a QBE list.
   - Click the Arrow to access a drop-down list, or press the Down arrow to toggle through the selections.

4 Click the Advanced Search tab to further narrow the search parameters. Advanced search fields allow you to narrow the time frame when a record was opened or updated. You can also enter the name of the operator who opened or updated the report. These fields are independent of each other and can remain blank. For fastest searching, use the fields identified as key (indexed) fields at your site. If these are not clearly identified on the form, ask your ServiceCenter administrator for a list of key fields.For more information on the filling the advanced search tab, see *Advanced Search tab* on page 404

   To fill in these fields, do one of the following: Type known information, click the Arrow, or press the Down arrow to access a drop-down list.

5 To further narrow the search parameters, click the IR Search tab. For more information on the filling the IR Search tab, see *IR Search tab* on page 406



6 Enter a plain text description in the **IR Search Text** field.

7 Click **Search**, or press **F6**.

   The matching record displays.

   If multiple records match the search parameters, a QBE Record list displays with the first record in the list displayed in the Root Cause record form. Click on a record in the list to display it in the Root Cause record form.

8 If a message is returned stating *No Records Found*, broaden the search by eliminating some of the search parameters that you entered.

   You can sort a QBE Record list by clicking the column header of the area by which you want to sort the list. For example, to sort the list by status, click **Status**.

Root Cause Record Search Fields

The Root Cause record search information displays in three tabs: **Basic Search**, **Advanced Search**, and **IR Search**. The tabs are described below.

Basic Search tab

You can leave any or all of the fields in this tab blank. Most of the fields have Arrow or **Fill** buttons which allow you to select from a drop-down list or QBE list.

Field	Description
Root Cause ID	Type the Root Cause record number, if you know it, in the form of `RCxx`, where *xx* is the number. (See the Smart Search definition below.) You can enter a partial number to access a QBE list of possible records. To do this, first deselect the Smart Search check box. For example, if you enter `RC2`, you would get a list of all Root Cause record numbers starting with 2: *RC2*, *RC20*, *RC21*, and so forth. Wildcards (for example, *) cannot be used.
Smart Search?	Allows searches for tickets by number only (prefixes or suffixes, such as *RC*, are omitted). Smart Searches return the ticket requested regardless of its state (such as, open or closed). If any settings on the search form other than the default are entered, a normal query is performed and the Smart Search feature is ignored.
Device	Select or enter the device type.
Category	Select the Root Cause Analysis category
Assignment	Select the assignment group responsible for the ticket or tickets.
Status	Select the status to search for.
Priority	Select the priority to search for.
Severity	Select the severity to search for.
Open	Mark this button to search for records that are currently open.
Closed	Mark this button to search for records that are currently closed
Either	Mark this button to search for records that are either open or closed.
Root Causes	Mark this button to search for Root Cause records only.

Field	Description
Known Errors	Mark this button to search for Known Error records only.
Either	Mark this button to search for both Root Cause and Known Error records.

Advanced Search tab

Any or all of the fields in this tab can be left blank.

Opened

Field	Description
Opened After	Enter the date and time (optional) the report was **Opened After**. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is *00:00:00*. The date and time format can be set by your system administrator in the System Wide Company Record or in individual operator records. Therefore, the date and time format you use may vary from the default shown above.
And Before	Enter the date and time (optional) the report was Opened **Before**. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is *00:00:00*.
By	Enter the name of the Root Cause Analysis operator who Opened the Root Cause record. You can type the name, or you can use the Arrow button or Down arrow to access a drop-down list.

Last Updated

Field	Description
Last updated After	Enter the date and time (optional) the report was Updated, **After**. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is *00:00:00*. The date and time format can be set by your system administrator in the System Wide Company Record or in individual operator records. Therefore, the date and time format you use may vary from the default shown above.
And Before	Enter the date and time (optional) the report was Updated **Before**. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is *00:00:00*.
By	Enter the name of the Root Cause Analysis operator who Updated the Root Cause record. You can type the name, or you can use the Arrow or Down arrow to access a drop-down list

Closed

Field	Description
Closed After	Enter the date and time (optional) the report was Closed **After**. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is *00:00:00*. The date and time format can be set by your system administrator in the System Wide Company Record or in individual operator records. Therefore, the date and time format you use may vary from the default shown above.
And Before	Enter the date and time (optional) the report was Closed **Before**. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is *00:00:00*.
By	Enter the name of the Root Cause Analysis operator who Closed the Root Cause record. You can type the name, or you can use the Arrow or Down arrow to access a drop-down list.

IR Search tab

Field	Description
IR Search Text	Enter plain text here.
Discovery Option	Designate which kind of search you want: ■ **Complete Match**—The system searches for an absolute match to the text you have typed. ■ **Shallow**—The system searches using narrower parameters and returns fewer records than with a deep search. ■ **Deep**—The system performs a broad search. Try using a deep search if a shallow search does not return the desired records.

10 Change Management

CHAPTER

ServiceCenter's Change Management (CM) provides the process for requesting, managing, approving, and controlling changes that modify your organization's infrastructure, including assets, such as your network environment, facilities, telephony, and resources. Change Management automates the approval process and eliminates the need for continuous memos, e-mail, and phone calls.

This chapter has been divided into the following sections:

This list is described in greater detail in the following section.

Overview

If you find yourself asking when you should use Change Management versus Request Management, here are some guidelines.

- Change Management is designed to handle any change to your business environment that modifies or disrupts the current state of that environment. Usually these modifications or disruptions affect multiple users or business units.
- Request Management is designed to handle common user requests for products and services. These requests usually affect only the person making the request or a small group of people for which the requestor is responsible.

The Change Management functions available to you depend on your Operator record user type.

ServiceCenter is shipped with the following user types and Change Management access capabilities.

- Help desk operators can submit and approve changes.
- Technicians can update tasks.
- Managers can create and approve tasks and changes.
- System administrators have full functionality.

Example: If your server hard drive is running out of space, you can submit a *change request,* outlining the need for a larger hard drive. The change is routed to the proper personnel for approval and action.

This chapter provides:

- *Elements of Change Management* on page 412, which provides a summary of the components of Change Management, including:
  - *Changes* on page 412.
  - *Categories* on page 412.
  - *Phases* on page 413.
  - *Tasks* on page 413.
  - *Approvals* on page 414.
  - *Alerts and Messaging* on page 415.
- Instructions on how to open a change.
- Instructions on how to approve a change.

This chapter also includes procedures for:

- *Opening a Task Record* on page 439.
- *Setting a Reminder* on page 438.
- *Request for Change (RFC) Category* on page 456.
- *Request for Change (RFC) - Advanced Category* on page 482.
- Other features.

Glossary

The following terms are used in Change Management:

Term	Definition
Alerts	A series of checkpoints taken against a change request or task to ensure that required work activities occur within specified time frames.
Approvals	A list of groups or operators who must acknowledge or accept the risk, cost, and so on associated with the implementation of a change request or task. Approvals give controlling authorities the ability to stop work and to control when certain work activities can proceed.
Approval sequence	The order in which approval requirements are made active. The process first makes the lowest sequence numbers available for approval activity. Once these are approved, the next highest number is made available. Groups with the same sequence number can approve in any order.
Category	The major logical classification of change requests and tasks. The category determines the data to be collected for a particular change or task, the forms presented to the user for data entry, the approvals needed, and the intervals at which alerts are sent. ServiceCenter includes a series of default categories, or administrators can create new categories.
Changes	Changes are the records submitted seeking the change. The change has a life cycle containing approvals, alerts, tasks, phases, and closure. Changes are based on categories.
Change number	Unique number assigned to a change when it is submitted.
Change owners	Required to give a technical approval for the phase to proceed.
Change sponsors	Required to authorize the change from the customer business perspective. If a Change Sponsor does not have access to ServiceCenter, Change Administrators (CAs) are responsible for ensuring that authorization is obtained from the Change Sponsor. CAs must approve the RFC on behalf of the Change Sponsor on the ServiceCenter system.
Event	The occurrence of a specific detectable action or condition; such as the opening of a change request or task, an approval, an update, and so on.
Group	One or more operators assigned to a common area of responsibility. Typically, each group reflects a business or technical area (or department).

Term	Definition
Initiator	The person who starts the process of a Request for Change.
Master form	The form that controls the display of data. It contains objects that identify the subforms that are to be displayed. The master form name is used to identify the Format Control, link, and validity records used.
Phase	An administrative step within the change or task that is needed to complete the work. Phases are sequential, repeatable steps characteristic of a Change category. You can approve or close a phase. When you take an action on a phase, you can move to the next phase. When a task or Change has no more phases, that task or Change can be closed.
Profile	The security record that defines which options and authorities are available to the operator or group using the profile.
Projected data	Data copied from fields in a model record to identically named fields in the newly opened Request record (source).
Subform	A form that displays on a master form. It is used to access data stored in a structure in the Database Dictionary. No Format Control, link, or validity records should be associated with a subform.
Task	Work processes necessary to complete the change and related to the Change. For example, the tasks involved in replacing a hard drive with a larger model might include: ordering the new drive, backing up the old drive, and installing the new drive. Tasks must belong to a phase of a Change. Work cannot proceed to the next phase until all tasks beneath it are complete. Task start and end dates, if specified, must fall within the start and end dates of the parent change. Tasks are classified by categories.
Task number	A unique number assigned to a task.

Elements of Change Management

Change Management effectively manages change processes, such as upgrades to central servers and network or telecommunication system installations, for large numbers of users within your organization. The following outlines the elements involved in the change process.

Changes

Changes are the records submitted seeking a change. Each change has a life cycle containing approvals, alerts, tasks (if required), phases, and closure.

When a change is submitted, Change Management assigns a change number that is unique to the change record.

Changes are based on categories.

Note: Before going through the process of a change, you need to create user profiles and groups for your ServiceCenter system. For information on operator records, user roles, and user profiles, refer to the *System Administrator's Guide* and the *Application Administration Guide*.

Categories

Setting up Change Management requires you to customize general Change categories, which are used to classify changes and tasks that the system handles. Categories are also used to define the phases of a change. A user may then enter a change to anything that fits in these categories.

ServiceCenter includes a series of default categories, such as HW server (Hardware Server) and MAC (General Purpose Move/Add/Change). However, administrators are not limited and can create new categories. Keep in mind that the change and task categories must have at least one phase, but can have multiple phases.

Important: ServiceCenter's best practices and work flows introduce two Change categories in Change Management: *RFC* and *RFC-Advanced*.

- The first category, Request for Change (RFC), is based on the ITIL standards. Refer to *Request for Change (RFC) Category* on page 456 for a discussion on this specific Change category.
- The second category, Request for Change (RFC) - Advanced, is an out-of-box model that manages the operational risks and costs of system wide changes, such as moving personnel, assets, and systems of a single business unit or multiple business units. The RFC - Advanced Change category also shares information with other ServiceCenter modules. Refer to *Request for Change (RFC) - Advanced Category* on page 482 for a discussion on this out-of-box Change category.

Phases

Phases are groupings of activities, or logically sequential and repeatable steps, within an implementation cycle. A phase is an administrative step within the change or task, which determines:

- The behavior of a change
- Forms to be used for change and task records
- Approval and review requirements
- Alerts
- General system options to be available during a phase

Tasks

Tasks are the work processes necessary to complete the change requests that require one or more tasks. For example, to put a new hard drive in your network server, the tasks might include ordering the new drive, backing up the old drive, and replacing the old drive with the new drive.

In order to assign tasks, tasks must belong to a change.

Note: The tasks must be valid for a change phase. For example, the HW deploy task is not available to the Analysis phase of a Change.

Each task must have a start date and an end date within the parameters set in the parent change. Tasks can be worked on simultaneously.

Tasks are assigned categories. Tasks can also be divided into phases.

Approvals

An approval is the verification that the change process can start. Approvals allow the phases and the tasks in the phases to proceed.

For a change to be completed, that change must be approved. If you are making a change, you submit the change for Approval. The category and phase drive the approvals required which could be one or more Approval Groups, individuals or the operator's manager.

Approval Group

You can also be *part of* an Approval Group. Approval groups are used for setting security and approval functions, and have control over the movement of items from one phase to another. An Approval Group consists of a member list of *reviewers* and *approvers*. If you are a member of an Approval Group, your task is either to look over the change (as a reviewer) or to accept or deny the change (as an approver).

Approver

As an approver, your user profile must contain the Approval Type for the approvals you need to make *and* you must be a member of that Approval Group.

For example: The out-of-box Change Management *COORDINATOR* user profile assigns the Approval Type of *Assessment*. If you are a member of the *Assessment* Approval Group, you can approve the Change request with this needed Approval Type. You can approve Change requests that require the *Assessment* Approval Type.

However, if your user profile changes and you no longer have the *Assessment* Approval Type, you cannot approve Change requests that require the *Assessment* Approval Type (even if you remain a member of the approver list for the *Assessment* Approval Type). You *must* be a member of the Approval Type group *and* your user profile must contain the valid Approval Type.

Alerts and Messaging

Alerts trigger a series of checkpoints taken against a change or task to ensure that the required work activities occur within the specified time frames. Alerts serve as reminders to ensure that a change or task gets completed in the allotted time frame.

Messages are sent to specified users when important events occur in a change or a task. These events include alerts, open, update, and close.

Need for Change Management

Utilizing Change Management:

- Requires a change to follow a set process.
- Notifies the appropriate personnel at key points in the process.
- Monitors the progress of a change and issues notifications if deadlines are not met.
- Supports the change throughout a simple or complex life cycle.

Workflow

Change Management allows the user to quickly and easily request a change to software, hardware, network connections, or facilities. Figure 10-1 on page 416 provides a flow chart of the change process, using the example of requesting a new hard drive for your server.

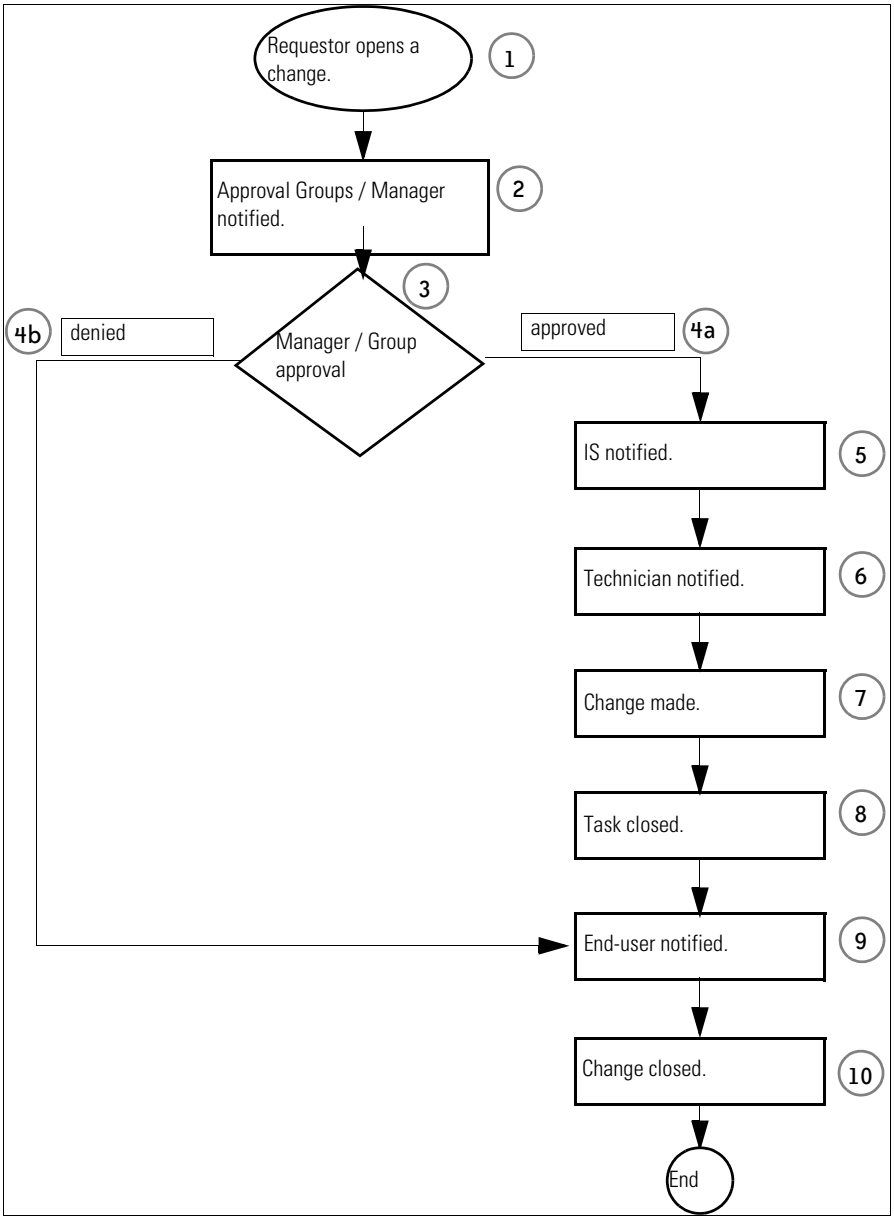


Figure 10-1: Change Management Flow

The workflow can be changed by modifying ServiceCenter scripts to meet your business process flow (see the *Application Administration Guide, Change Management*, for more information on how to create scripts). For example, if you discover the hard drive in a PC is not large enough, you can request a new hard drive by following the Change Management process in the flow diagram shown in Figure 10-1 on page 416:

1. You *open* a change from Change Management and you become the *requestor*. In this example, you are requesting the larger hard drive in a PC.
2. After you submit your change, *approval groups* are notified. In this example, the change is sent to your manager.
3. Your manager *reviews* the change.
4. A *decision* is made on the change. Your manager either:
   a. *Approves* the change. The change process then moves to step 5.
   b. *Denies* the change. The change process then moves to step 9 to notify the user who opened the change.
5. The process moves to the next task phase, which is notifying the personnel who can implement the change. In this example, the *IS department* is notified of the change.
6. In the next phase, the tasks are determined. In this example, the IS manager notifies the appropriate *technician* of the change. Work to complete the change can be broken down into phases and tasks.
7. The technician makes the change—installs the hard drive.
8. The technician closes the task.
9. You, as the requestor, are notified.
10. The change is closed.

Changes and Tasks

Changes are the basis for Change Management. A change can be broken down into *tasks*. Changes and tasks can be further broken down into *categories* and *phases*. (Categories and phases are discussed in detail in the *Application Administration Guide*.)

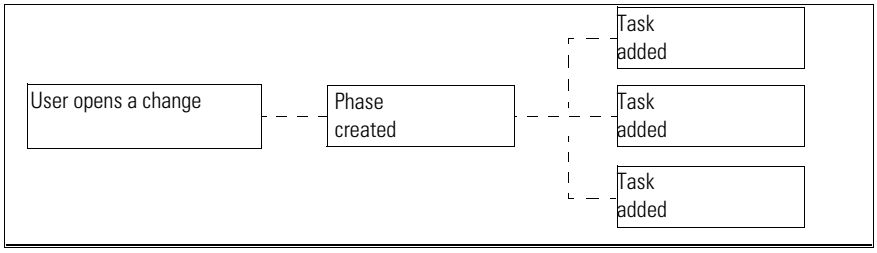


Figure 10-2: Components of a Change—Task Breakdown

For example, a change can be opened to install a larger hard drive in a PC. The tasks could include: ordering the new hard drive, backing up the old drive, and installing the new hard drive. The change in Figure 10-2 uses process flow in Figure 10-3.

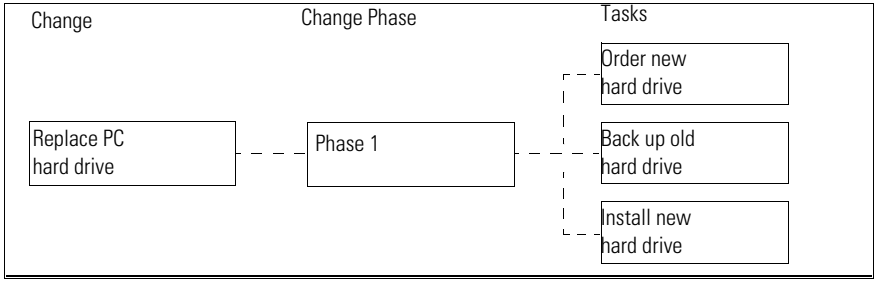


Figure 10-3: Change Process Flow

Throughout the life cycle of a change, managers can track the progress of the change, granting approvals where necessary.

A task is not a stand-alone element, but is part of the life cycle to complete a change. A change can have multiple tasks, although none are required. Tasks can run simultaneously.

Instructions for opening a task are included in *Opening a Task Record* on page 439.

Using Change Management

Change Management access differs between the sample user profiles included with ServiceCenter. For example, the technician login can view tasks, but can't approve a change; the administrator and management logins have full Change Management access.

Change Management functions are accessed by two buttons:

- **Change Management**—access is dependent on how the operator is logged on.
  - *Technician*—My Change Tasks.
  - *Manager* **and** *system administrator*—access Change Management menu.

- **Approve Changes**—allows the operator to approve changes. This button is used in the help desk operator shipped with the system for demonstration purposes.

Search for a Change or Task

You can query the Change Management database for a change or task. Log on as administrator or manager to run this search. Searches can be saved as inboxes. See *Inboxes* on page 77 for more information.

To perform a search:

1 Click **Search Changes**.

The Change Management Query form (Figure 10-4 on page 420) displays.

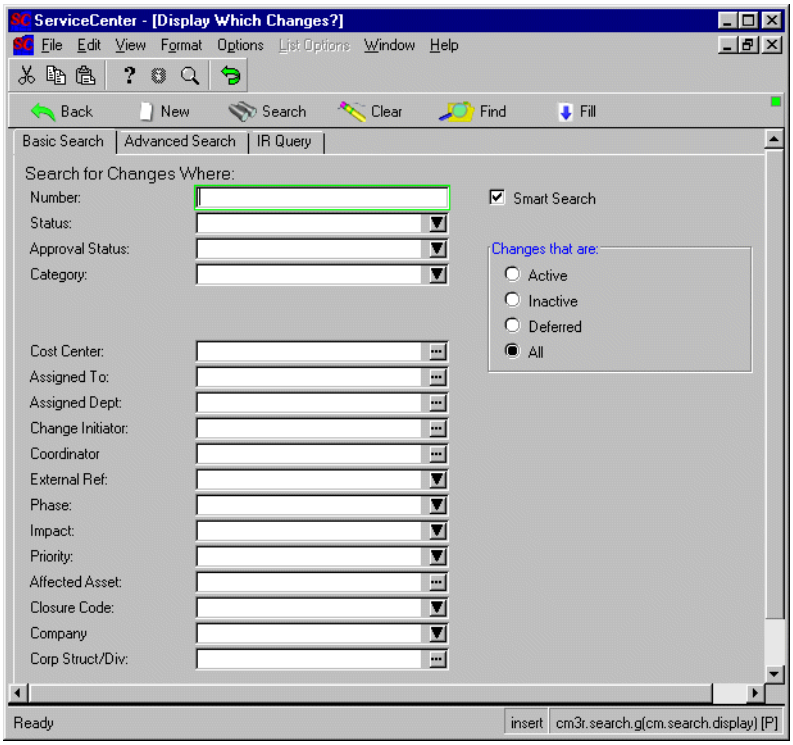


Figure 10-4: Change Management Query form

2 Enter any information you know about the change or task.

3 Click **Search**, or press **F6**.

If only one record matches the search parameters, that record displays. If more than one record matches the search parameters, these records are included in the QBE list, and the first record in the list displays.

Change Management Basic Search Fields

Any or all of these fields can be left blank.

Field	Description
Number	Enter the change or task number, if you know it. Unlike call reports and incident tickets, change and task ID numbers do not have a preceding letter.
Status	Enter the status of the changes or tasks for which you are searching. ■ closed ■ initial ■ reopened ■ waiting
Approval Status	Enter the Change Management status of the changes or tasks for which you are searching. ■ pending ■ approved ■ denied
Category	Enter the Change Management category classifying the change or task.
Cost Center	Enter the cost center specified on the ticket.
Assigned To	Enter the ServiceCenter user responsible for the change or task.
Assigned Dept	Enter the ServiceCenter department responsible for the change or task.
Change Initiator	Enter the name of the person who asked for the change.
Coordinator	Enter the ServiceCenter operator responsible for the ticket or tickets.
Phase	Search on tickets within the selected phase of the change or task.
Impact	Search on tickets with the selected impact code. ■ 1 Major Business Change ■ 2 Business Change ■ 3 Minor Change
Priority	Search on tickets with the selected priority code. ■ 1 Emergency Change ■ 2 Expedited Change ■ 3 Normal Change

Field	Description
Affected Asset	Enter the name of the device that has been affected by the change or task.
Active/Inactive	Search on tickets with the selected activity state of the change or task: Active, Inactive, Deferred or All.
Closure Code	Search on tickets with the selected closure code. ■ (1) completed ■ (2) failed ■ (3) rejected - financial ■ (4) rejected - technical ■ (5) rejected - security ■ (6) withdrawn
Company	Select a company name from the list provided for which this change has been requested.
Corporate Struct/Div	Use the Fill feature and select a record from the list to specify the company's corporate structure/division involved with this change.

Change Management Advanced Search Fields

Any or all of the fields in the Change Management Query form (Figure 10-9 on page 428) can be left blank. These fields define the time frame affecting the change or task. The format is mm/dd/yyyy hh:mm:ss. If a time is not entered, the default is 00:00:00.

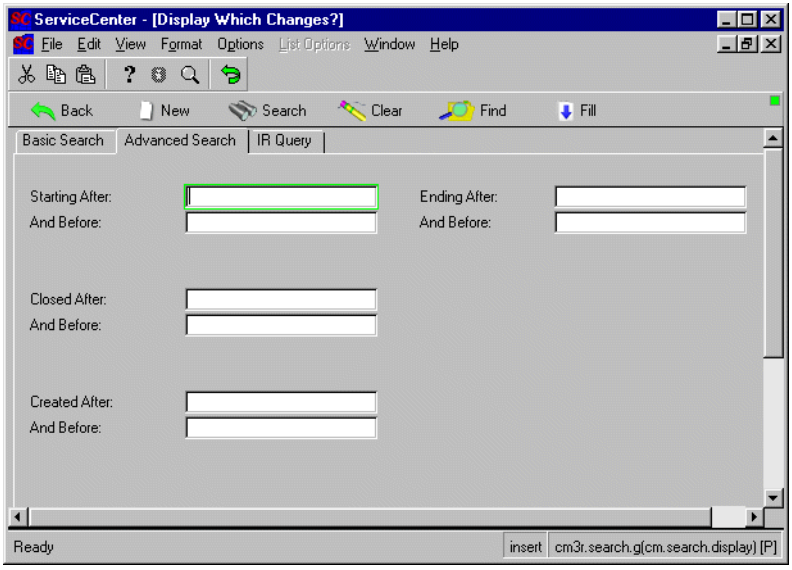


Figure 10-5: Change Management Query form—Advanced Search tab

Field	Description
Starting After/Before	Search tickets with work scheduled to start after and before the selected dates and times.
Ending After/Before	Search tickets with work scheduled to end and be complete after and before the selected dates and times.
Closed After/Before	Search tickets that have been closed after and before the selected dates and times.
Created After/Before	Search tickets that were created after and before the selected dates and times.

IR Query tab

The IR Query tab displays a blank text box where you can enter a plain text query and Discovery Options to determine how in depth you want your search to be. ServiceCenter can add the plain text to the search parameters.

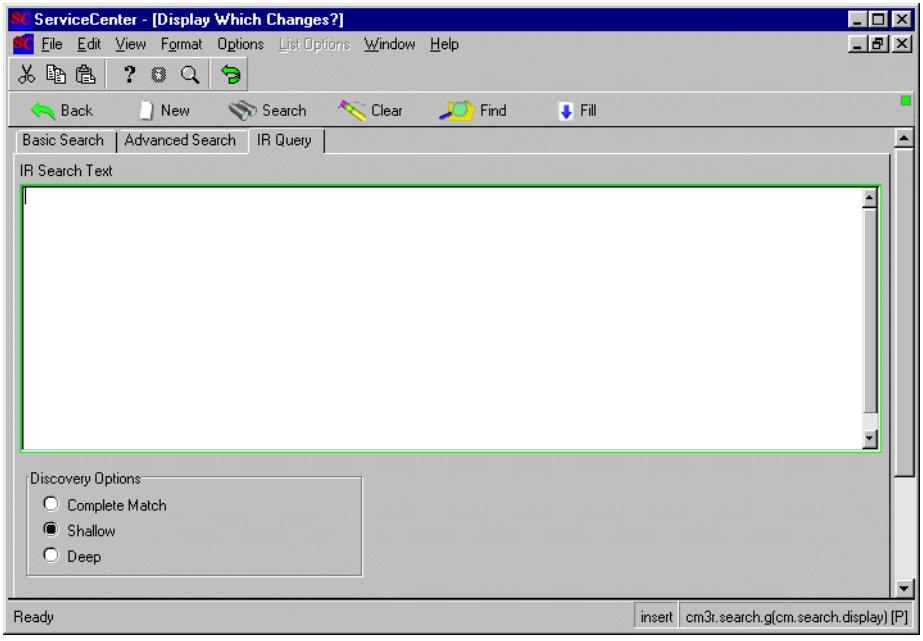


Figure 10-6: Changes IR Search form

Change IR Search tab

The IR Search tab displays a blank text box where you can enter a plain text query. ServiceCenter can add the plain text to the search parameters.

Fields

Field	Description
IR Search Text	Access ServiceCenter's IR Expert application where you can enter a plain text query. (IR Expert is an intelligent, concept-based information retrieval engine that searches the ServiceCenter database for similar or related information, based on a simple, natural language query).
Discovery Options	Where you can designate which kind of search you want by selecting one of the following options: ■ **Complete Match**—system searches for an absolute match to the text you have typed. ■ **Shallow**—search uses narrower parameters and returns fewer records than with a deep search. ■ **Deep**—performs a broad search. Try using a deep search if a shallow search does not return the desired records.

Change Management Inboxes

A Change Management search can be saved as an inbox. *Inboxes* on page 77 provides details about creating and using inboxes. Change and task inboxes (Change List and Task List, respectively) can be accessed from inboxes in other applications. A Change Management Change List is shown in Figure 10-7 on page 426.

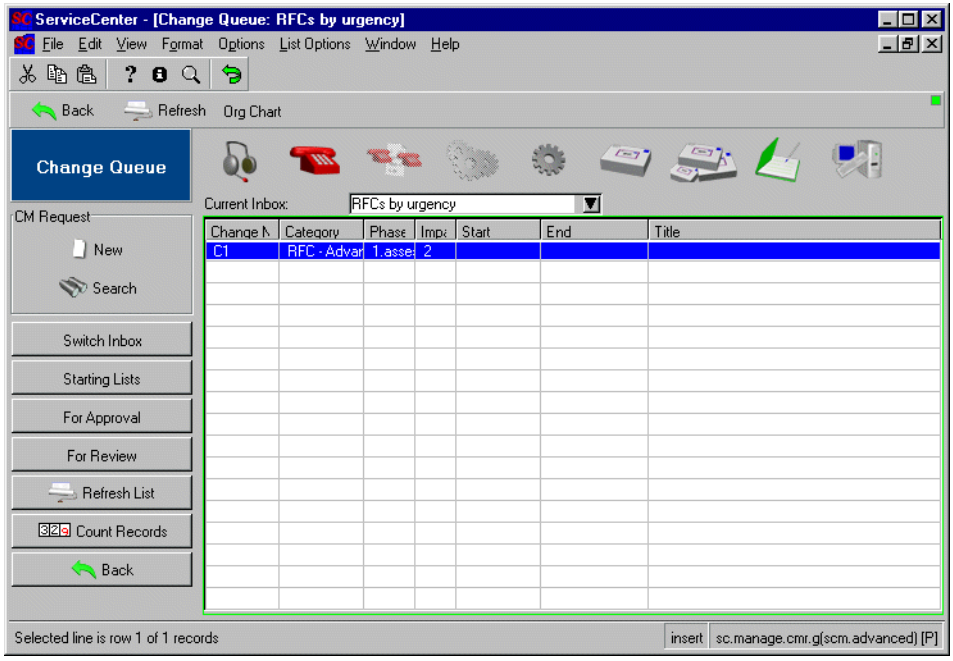


Figure 10-7: Change Management Change List

Change List/Task List buttons

The buttons in the Change List and Task List are identical to other inboxes, except for two buttons in each inbox that are specific to the applications.

For Approval—displays a list of changes or tasks in the approval process.

For Review—displays a list of changes or tasks in the review process.

Open a Change

Only managers and system administrators can create a new change record from the Change Management menu. However, a typical help desk analyst, such as *BOB.HELPDESK,* also has access to opening a change while either taking a call or accessing an existing call ticket. In order to do this, *BOB.HELPDESK* must select a Change category, which activates the Request Change button and allow a request for change to be opened.

To open a change as a system administrator:

1 Click **Change Management** in the Home menu.

The Change Management menu displays.

2 Click **Open New Change**.

A list of change categories displays Figure 10-8 on page 427. The categories listed depend on the level of the user.

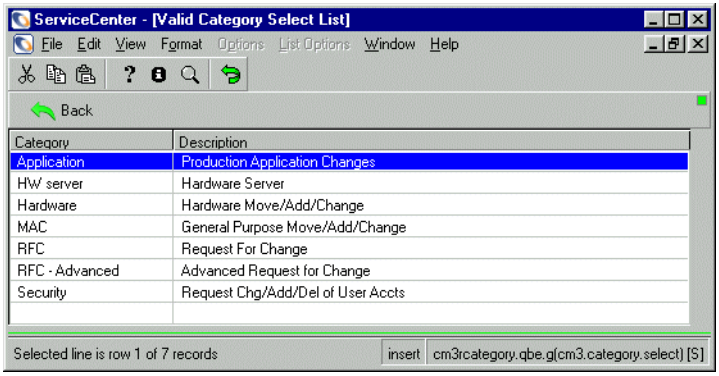


Figure 10-8: Change Categories

3 Double-click on the category in which you want to open the change.

The change form for that category displays.

For example, you can upgrade the hard drive in a PC. Select **Hardware**.

The change form for the requested category displays (Figure 10-9 on page 428).

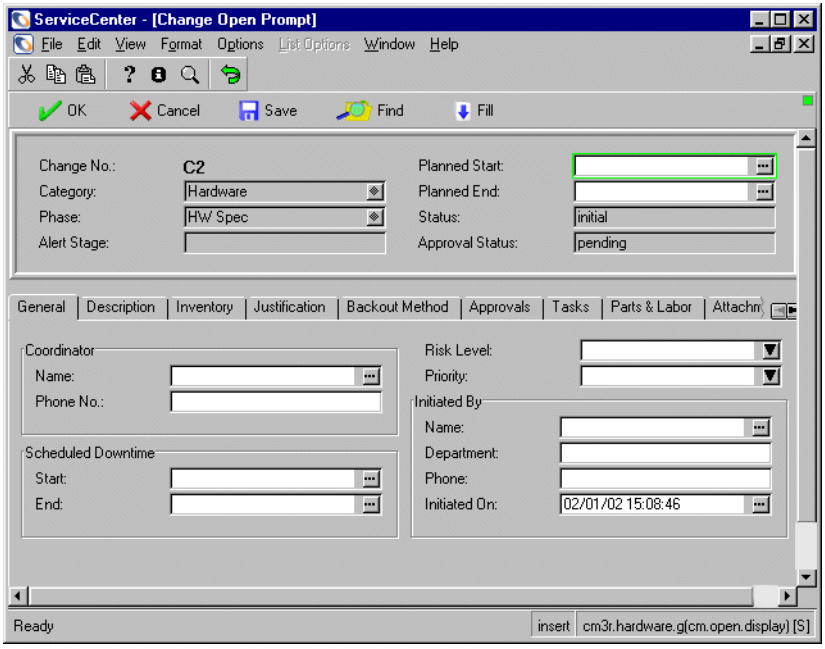


Figure 10-9: Change form

4 The fields in the top structure are similar for each category, while the remaining sections are dependent on the category. The following fields are automatically filled in by Change Management:

Field	Description
Change No.	A unique number, beginning with the prefix letter C, is automatically assigned to the change when the change is opened.
Category	The change category you selected when you opened this change.
Phase	Indicates the phase of the change.

Field	Description
Status	The current status of the change. When a change is first opened, initial is entered by default. The other values are: ■ **deferred**—indicates the change was not approved, but has been returned to the initial notification process, which occurs after the change is submitted. ■ **staged**—indicates the change is complete and is now waiting for implementation. For example, software has been updated, and the next step is to put the software into use.
Approval Status	Indicates the current status of the approval process. The default value when opening a change is pending. **Note:** If the phase requires no approvals the approval status is automatically set to "approved."
Initiated On	The date and time the change was opened.

5 Enter dates in the **Planned Start** and **Planned End** fields.

The format for these fields is mm/dd/yyyy hh:mm:ss. If you do not enter the time, Service Center uses the default time.

For example, type **12/19/2001** in the **Planned Start** field and press Enter. Do the same for the **Planned End** field. ServiceCenter enters 12/19/2001 00:00:00 in both fields.

Note: The date and time format can be set by your system administrator in the System Wide Company Record or in individual operator records. Therefore, the date and time format you use may vary from the defaults shown in the previous steps.

You can use the ServiceCenter Calendar to help enter the date. For example, if you are opening a change in the Application category, click in the **Planned Start** field, and then click **Fill** to access the Calendar. Refer to *Setting a Reminder* on page 438 for instructions on using the Calendar.

6 Enter a value (**0** through **5**) in the **Risk Level** field to indicate the hazard of the change to the existing state (this field is blank by default):

- **0** - no risk
- **1** - low risk
- **2** - some risk
- **3** - moderate risk
- **4** - somewhat high risk
- **5** - very high risk

7 Enter a value (**1** through **5** or **E**) in the **Priority** field to indicate the urgency of implementing the change over other activities, such as testing and production:

- **1** (**if time allows**)—indicates implementation can take place when convenient for the personnel implementing the change and when the change does not create a serious interruption.
- **2** (**normal**)—indicates the change should be implemented in a normal manner, for example, when the production and test systems are not running.
- **3** (**below test and production**)—indicates that neither the test nor production systems should be stopped to implement the change.
- **4** (**above test**)—implementing the change takes precedence over operating the test system but not the production system, for example, the production system should not be brought down to implement the change.
- **5** (**above test and production**)—implementing the change takes priority over what is running on the test and production systems. These systems can be stopped to implement the change.
- **E** (**emergency**)—indicates the implementation needs to occur as soon as possible because the current condition is seriously affecting the system where the change is requested.

8 In the **Coordinator** structure, click **Fill** to display a QBE list for the **Name** field. Double-click a name in the operator record list to select it. The **Phone No.** field is automatically filled in.

9 Enter downtime in the **Scheduled Downtime** fields, meaning the **Start** and **End** times that the device is unavailable while the change is completed. If you press the **Fill**, the current date and time are entered in these fields.

10 In the **Change Initiator** structure, click **Fill** to display a QBE list for the **Name** field. This name comes from the contacts file. The related fields are automatically filled in.

11 Enter a description of the change in the Description tab.

12 Click the Inventory tab. In the **Asset ID** field, click **Fill** to display a QBE list of devices. Select the device affected by this change.

In this example, select TRAIN pc 100.

13 Click the Justification tab.

A text box displays. Enter a Justification for the change.

For this example, the PC could require a new hard drive because the old drive does not have enough space.

14 Click the Backout Method tab.

A text box displays. Enter a Backout Method for the change.

For this example, the backout procedure could be reinstalling the old hard drive.

Note: The Approvals and Tasks tabs remain blank until the appropriate actions are taken during the change process. Alert Stage is automatically placed and updated in the change form by Change Management when specified tasks are not accomplished by the defined dates.

15 Click the Parts & Labor tab to review information about device part numbers and a list of any work done on the device.

Note: The Parts & Labor tab appears only if the Service Contracts module has been enabled.

16 The Attachments tab (Windows- and Java-based clients only) can be used to add files from other applications (for example, an Excel spreadsheet) that provide additional information about the change.

a To attach a file, copy (drag) it into the field provided on the Attachments tab.

17 Save the record.

a Click **Save**, or press **F4**, to save the record and leave it displayed.

A message displays in the status bar stating:
Change # Phase xx Opened by operator,
where # is the Change Number, *xx* is the phase of the change, and *operator* is the person opening the change.

b Click **OK**, or press **F2**, to save the record and return to the Change Management menu.

Options Menu

Options menus vary, depending on the current form; according to whether you are opening an existing change/task or new change/task.

Set Reminder—Allows you to schedule a reminder to be sent to you at a specified time through e-mail, a page, or a pop-up message.

Print—Prints the current record to the user's default printer.

Audit History—Enables revision tracking.

Search Duplicates—Queries the Change Management database for duplicate changes or tasks. The search is based on the field where the cursor is placed and the data entered in the current form.

Note: You cannot query duplicate **Date** and **Time** fields.

Validity Lookup—Checks the selected field against the ServiceCenter validity tables.

Open New Task—Allows you to open a new task for the current change. (Available only for existing changes.)

View Opened Tasks—Displays the tasks open for the current change. (Available only for existing changes.)

Show Parent Change—Accesses the RFC to which this task is associated.

Change Category—Allows you to select a different change category.

Change Phase—Allows you to change the phase of the current change record.

Alerts—Changes the system tray buttons to alert options (Alert options vary based upon whether or not the change you have accessed is locked).

Reason—Displays the current change's alert stage in the system tray. Alert stages trigger alerts.

ScheduleDisplays a QBE list of scheduled ServiceCenter alerts.

Alrtsof/Alrtso—Changes the alert status for the current change from on to off. This button changes to **Alrtson** when the status is off.

ShowAll—Shows all alerts associated with the current change.

Alerts are discussed in the *Application Administration Guide*.

Approval Options—Accesses the Approval Requirements form with approval options for the current record; approval buttons display in the system tray for the current record displayed.

List Pages—Allows you to display a list of each update if paging is used on the phase.

Calculate Risk—Calculates a value for the **Risk** field based on the data entered in the record, such as planned start and category.

Copy Record—Copies the information in the current change/RFC into a new change/RFC record. You can modify that new record and save it to create a new change/RFC.

If the copied record has associated tasks, you'll be prompted as to whether you want the tasks copied along with the change. If yes, a new task is created for each original task: if you click OK, the copied task is saved, and you continue to the next task; if you click Cancel, the copied task is not saved.

Affected SLAs—Lists the Service Level Agreements impacted by this change or task.

Related:

Related Incidents>View|Open|Associate—Displays call reports (incidents) related to this change. Allows you to view, open, or associate related incidents to this change.

Related Calls>View|Associate—Displays calls related to this change. Allows you to view or associate related calls to this change.

Related Quotes>View|Open|Associate—Displays Request Management quotes related to this change. Allows you to view, open, or associate related RM quotes to this change.

Related Root Causes>View|Open|Associate—Displays Root Cause tickets related to this change. Allows you to view, open, or associate related Root Cause tickets to this change.

I/R Query—Accesses the ServiceCenter IR Expert application and allows you to run a query against a specified file.

Notify—Accesses the **mail.notify** form containing a message window and the record. You can attach a message to the record and send the record to someone else via standard e-mail, SCmail, or a fax. See *Notifying Other ServiceCenter Users* on page 244 for details.

Expand Array—Allows you to add a field to an array. A separate window displays to enter the data.

Refresh—Updates the display of the current record.

View IND Device—View the details of a device from Network Discovery's Device Manager, which provides details of the devices discovered on the network.

List Options Menu

List Options are visible if the Record List option in the View menu bar is checked.

The **List Options** menu contains the following options, and varies depending on whether you are opening an existing change/task or new change/task.

Field	Description
New	Displays a blank form for opening a new change/task/RFC.
Count	Counts the number of records in the current record list.
Print List	Allows you to print a copy of the current record list/RFCs awaiting approval.
Refresh List	Updates the display of the current list.
Modify Columns	Allows you to change the column headings in the QBE record list.

Field	Description
Export to Excel	Exports the current 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.
Export to Text File	Exports the 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.
Save as Inbox	Allows you to save the current list as an inbox.
Mass Approve	Allows you to approve multiple records awaiting approval. See *Change and Task Mass Approvals* on page 452.

Launch the Network Discovery Device Manager from Change Management

ServiceCenter integrates the Network Discovery product to provide network monitoring capabilities within ServiceCenter. See the *Event Services* guide.

Network Discovery's Device Manager provides details of the devices discovered on the network. The Device Manager can be launched from a change record to display information about the device impacted by the change. The Device Manager provides several panels of information for each device in the network. The data includes the device state, status, port information and the device address.

To launch the Device Manager from a change record:

- Select **Options>View IND Device** from the menu bar.

  See the *IND User's Guide* for more information on using the Device Manager.

Associating a Change with Another Application Record

You can associate a change record with an existing Service Management call report, Incident Management incident ticket, Request Management request (quote), or Root Cause Analysis Root Cause ticket.

Note: Before associating a change to another record, make a note of the ID number of that record. You need to enter this number in the following process.

To associate a change with another record:

1 Access the change record.

2 Select **Options>Related>Incidents|Calls|Quotes|Root Causes>Associate**.

A dialog box displays the following question:

Associate Change xxxx with which Incident/Call/Quote/Root Cause?

3 Type the ID number.

- **a** For an incident ticket, type the number in the form of IM*xx*, where *xx* is the incident ticket number.
- **b** For a call report, type the number in the form of CALL*xx*, where *xx* is the call number.
- **c** For a quote, type the number in the form of Q*xx*, where *xx* is the quote number.
- **d** For a Root Cause ticket, type the number in the form of RC*xx*, where *xx* is the Root Cause ticket number.

4 Click **OK**.

A confirmation displays in the status bar.

Opening a Related Record

You can open an Incident Management incident ticket, Request Management request (quote), or Root Cause Analysis Root Cause ticket from Change Management. The new record is related to the existing change record.

To open a related record from Change Management:

1 Create a new change record and save the record, or access an existing change. See *Open a Change* on page 427.

2 Select **Options>Related>Incidents|Calls|Quotes|Root Causes>Open** from the pull-down menu.

- **a** If you are opening a related incident ticket, a QBE category list displays. Double-click on the desired category and a new incident ticket displays with the category and related information from the change record filled in.
- **b** If you are opening a related quote, a new quote form displays with information related to the change record already filled in.
- **c** If you are opening a related Root Cause ticket, a QBE category list displays. Double-click on the desired category and a new Root Cause ticket displays with the category and related information from the change record filled in.

Refer to the appropriate chapters in this guide (*Incident Management* on page 197 and *Root Cause Analysis* on page 377), as well as the *Request Management* guide for help in filling out the forms.

3 **Save** the related record, then click **OK**.

You are returned to the initial change record.

Setting a Reminder

From an existing change or task record, you can schedule a reminder to be sent to you at a specified time. The following example is for a change record, but the same procedure is used to set a reminder from a task record.

To access the Set Reminder feature:

1 With an existing change record displayed, select **Set Reminder** from the **Options** menu.

You select one of the options for setting the time when the reminder occurs:

2 Click **Browse** in the **Remind At** field to bring up the ServiceCenter Calendar. Use the calendar to select the date and time you want the reminder to occur.

- **a** Select **Remind At** to set a reminder for a particular day and time.
- **b** Enter the time in the **Time** field. Click on the day you want the reminder to occur. The dialog box closes and the information is filled into the **Remind At** field.
- **c** Click the arrows at each side of the month and year to move forward or backward.
- **d** To return to today's date, click **Goto Today**.
- **e** To go to a specific date, click **Select Date** and type the date in the dialog box displayed. Click **OK** to accept the entry and return to the Calendar. Clicking the Back arrow returns you to the Calendar with no change.
- **f** Select **Remind In** to set the reminder to occur at a particular interval. This option brings up two fields; enter the time interval, and select the shift you are working from the drop-down list.

3 In the **Remind if** field, select an option from the drop-down list:

- **Always** (the default).
- **Change is still open.**
- **Change is still assigned to me.**

4 In the Pop-up Message area of the form, select the type of notification you want:

- Pop-up
- Page
- Email
- SCMail

If you select Pop-up or Page, type the message in the **Message** field that you want to display in the reminder.

Choosing **Email** or **SCMail** displays two **Message Type** option buttons. Select the type of e-mail message you want to send. There is also a **Title** field where you can enter a title for the e-mail message.

5 Select the type of e-mail you want sent:

- **Send Change Record**. This option includes a copy of the change record in the e-mail.
- **Fixed Text**. This option displays a text box in which you can type the message you want to display in the e-mail message.

6 When you have made all your selections, click **OK**.

The initial change record from which you set the reminder displays.

Opening a Task Record

Tasks can be opened either from a change record or from the Change Management menu. A task must be associated with a change to be executed.

To access the Tasks function:

1 If you are in the Change Management menu, click **Open New Task** in the Tasks tab to open a new task.

-or-

If you are in a saved change record, select **Options**>**Open New Task** from the menu bar.

2 Select the Task profile that you wish to use for this session.

Note: You can select a Task profile only if you have been assigned more than one Change Profile.

A list of valid task categories displays. The contents of the list depend on the change category. The QBE list in Figure 10-10 on page 440 shows an example of the hardware categories.

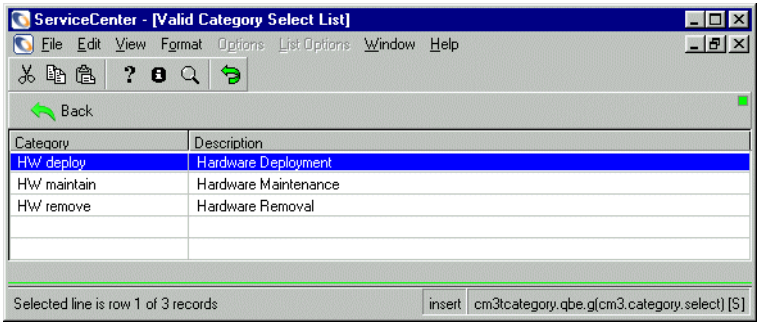


Figure 10-10: Hardware task categories

3 Double-click on the task category you want to use.

In this example, click **HW maintain**.

A new task is opened and a message displays in the status bar that states: *Data from Change < # > has been copied to the Task per Link definition cm3t.task.request*.

Note: If you are opening the new task from the Change menu, you are prompted to select a task profile.

Next, a QBE list displays, prompting you to select a Parent Change for the new task. Double-click the change record in the QBE list that is the parent of this task.

A new task record displays with a task number assigned.

Figure 10-11 shows an example of a Task Open Prompt form for the HW maintain category.

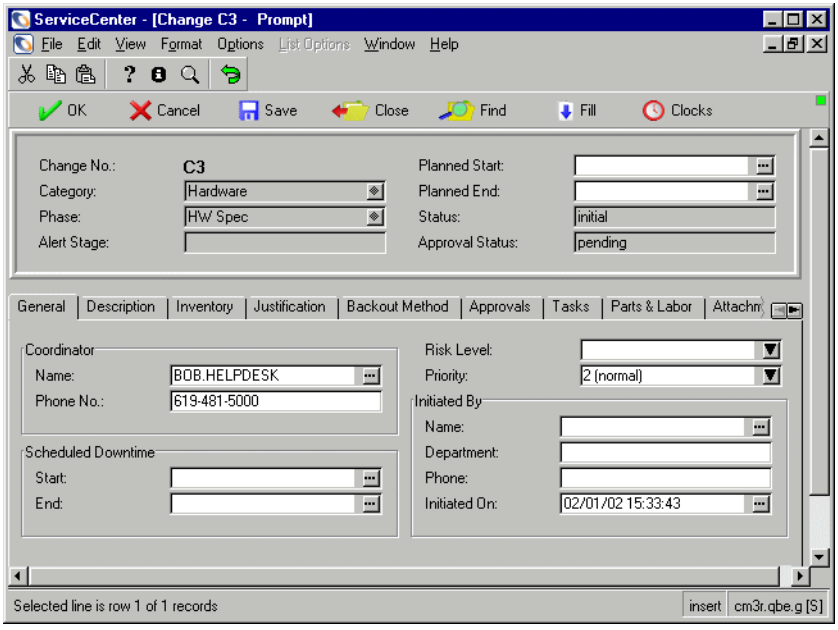


Figure 10-11: Task Open Prompt form

4 The **Category** and **Phase** fields are filled in by default, but can be changed:

   a If you want to change the category, click **Browse** next to the **Category** field to access a QBE list of the task categories.

   b If you want to change the phase, click **Browse** next to the **Phase** field to access a QBE list of the change phases. Phase indicates the change phase under which this task falls.

5 Dates in the **Planned Start** and **Planned End** fields are entered by default. Modify these fields to meet your timetable.

6 Fill or modify fields in the General tab as needed. Some fields are filled in by default, but can be modified to meet the specifications of the task.

a In **Risk Level**, click the down-arrow to fill this field with a value (**0** through **5**) to indicate the hazard of the task to the existing state:

0 - no risk

1 - low risk

2 - some risk

3 - moderate risk (default value)

4 - somewhat high risk

5 - very high risk

b In **Priority**, click the down-arrow to fill this field with a value (**1** through **5** or **E**) to indicate the urgency of implementing the task over other activities, such as testing and production.

- **1** (**if time allows**)—indicates implementation can take place when it is convenient for the personnel implementing the task and when the task does not create a serious interruption. This is the default value.
- **2** (**normal**)—indicates the task should be implemented in a normal manner (for example, when the production and test systems are not running).
- **3** (**below test and production**)—neither the test nor production systems should be stopped to implement this task.
- **4** (**above test**)—implementing the task takes precedence over operating the test system but not the production system (the production system should not be brought down to implement the task).
- **5** (**above test and production**)—Implementing the change takes priority over what is running on the test and production systems. Systems can be stopped to implement the change.
- **E** (**emergency**)—indicates the implementation needs to occur as soon as possible, as the current condition is seriously affecting the system.

c In **Status**, the current status of the task is indicated.

d In **Approval Status,** the approval stage for this task is indicated. This field defaults to **pending** when a task is created.

e In **Alert Stage**, the field is automatically filled in when the task hits an alert trigger.

f In **Scheduled Downtime:Start**, enter the date (mm/dd/yyyy) and time (hh:mm) the downtime is to begin. The time is optional.

g In **Scheduled Downtime:End**, enter the date (mm/dd/yyyy) and time (hh:mm) the downtime is to be completed. The time is optional.

Note: The date and time format can be set by your system administrator in the System Wide Company Record or in individual operator records. Therefore, the date and time format you use may vary from the defaults described in the previous steps.

7 In the Assigned To structure, click **Fill** to display a QBE list for the **Name** field. The other fields are filled in automatically.

For example, you can select the technician to complete this task.

8 In the **Coordinator** structure, click **Fill** to display a QBE list for the **Name** field. The **Phone No.** field is automatically filled in, as data is passed in from the change. This information is read-only on most task forms.

For example, you can select the manager to oversee this task.

9 Enter a brief description of the task in the Description tab.

10 Select the Inventory tab.

The Asset selected in the change displays in the **Asset** field.

If no **Asset ID** is listed, click **Fill** to display a QBE list of devices. Select the device affected by this task.

11 Select the Work Notes tab.

Note: Not all task categories have this tab.

12 Enter the necessary start and end times and notes (Figure 10-12 on page 444).

   a a **Start Time** for the task.

   b Enter an **End Time** for the task.

   c Enter **Notes** about the task.

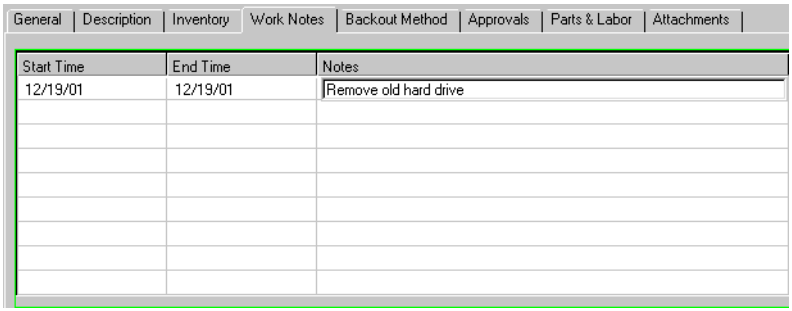


Figure 10-12: Work Notes tab

13 Select the Backout Method tab and enter a Backout Method for the change. For this example, the backout procedure could be reinstalling the old hard drive.

14 Select the Approvals tab to view a history of any approvals made or pending for this task.

15 Use the Attachments tab to add files from other applications (for example, an Excel spreadsheet) that provide additional information about the task.

16 To attach a file, copy (drag) it into the field provided on the Attachments tab.

17 Click **Save**, or press **F2**, to save the task record.

   A message displays: *Task xxxx Phase yyy Opened by zzz*, where *xxxx* is the task number, *yyy* is the phase and *zzz* is the user.

Viewing Tasks

To view tasks created for a change:

1 Click the Tasks tab in the Change Management home menu.

2 Click **Task Queue**.

3 Click **Switch Inbox** to select a view of tasks.

   ServiceCenter displays the Change Request Inbox dialog box.

a Click the down arrow in the QBE list box to display the Inbox options.

b Select **All Open Tasks** and click **OK**.

ServiceCenter displays a QBE list of all open tasks. If there is only one task, ServiceCenter displays the specific Task form.

4 Double-click a task in the Task list to display a Task form.

5 Click **OK** to return to the Task List form.

6 Click **Back** to return to the RFC form.

Closing Tasks

Close tasks once you have completed them. A change cannot progress to the next phase until all tasks in the current phase are closed.

To close the task:

1 Log on as Task Owner.

2 From the Inbox form, you can either:

a Display the RFC and display the tasks for that RFC:

Double-click on the selected RFC in the Changes Inbox form to display the selected RFC form.

- Click the Tasks tab on the Change form to display the task. Continue with step 3.
- If there is only one task for the RFC, ServiceCenter automatically displays the specific task form.

-or-

b Display the Task list for all tasks assigned to your area of responsibility:

- Click **RFC:Task List** on the Inbox form to display the Tasks Inbox:All Open Tasks list form.
- Switch Inbox view to view tasks in Inbox:My Tasks list form.
- Double-click the appropriate task to display the specific Task form.

3 Open the task by double-clicking on the task.

4 Click **Close** and select the appropriate Completion Code.

5 Make any closing comments in the **Closing Comments** field.

6 Click **OK** to return to the Task list or RFC form.

7 When you have completed all actions to your RFC tasks, click **Back** through the successive application forms to return to the home menu.

Approving a Change or Task Phase

As a manager or technician, you may be part of the change approval process. The ServiceCenter administrator gives you approval authority by creating *approval groups*. You can become a member to review and/or approve changes coming from these groups. Approvals are granted to *change phases* and *task phases*.

Phase definition records define whether or not a change or task phase needs approvals, and are created for each phase. Phase definition records are discussed in the *Application Administration Guide*.

What are Approvals?

An *approval* is the verification that the change process can start. Approvals allow the phases and the tasks in the phases to proceed.

A *denial* denies the approval of the change. The change can then be closed or deferred, sending it back through the approval process.

Without the approval process, the life cycle of the change is put on hold. If certain tasks are not completed in the specified time frames, alerts are issued.

Change Management contains multiple options for approving a change or task phase, either by individual record or mass approval. Changes and task phases also can be denied, or an approval or denial can be overridden.

Approval Buttons

Change Management contains approval buttons for those with the proper approval rights. When reviewing a change or task, click Approvals tab, and then double-click on the *Approval Type* (see Figure 10-13).

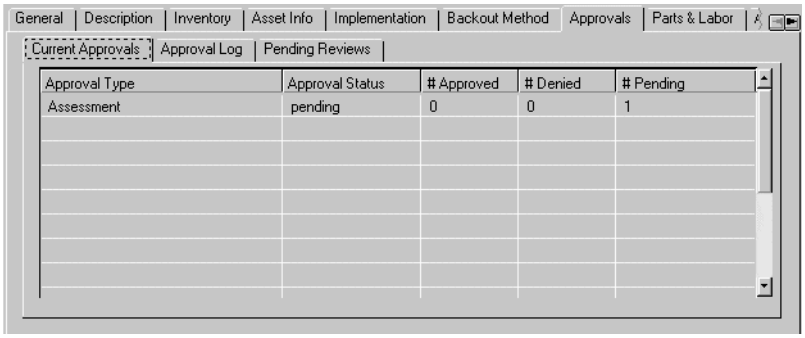


Figure 10-13: Approval Type and Approval Status in the Approvals tab

The *Approval* form is opened (Figure 10-14 on page 448).

Depending upon the status of the current change or task, the appropriate buttons are made available.

Button	Description
	**Approve**—to approve the change or task phase.
	**Deny**—to deny the approval of the change or task phase.
	**Retract**—to undo a previous approval.
	**MassApprove**—to approve all current tasks or changes in that user's approval queue.

When you have Record List turned off in the View menu and the Mass Approve option is selected (checked) in your Change user profile, the **MassApprove** button displays when a QBE list of records displays. This allows you to mass approve the records in the QBE list awaiting your approval.

Approve and Deny buttons are available to approve or deny a change or task phase (see Figure 10-14 on page 448).

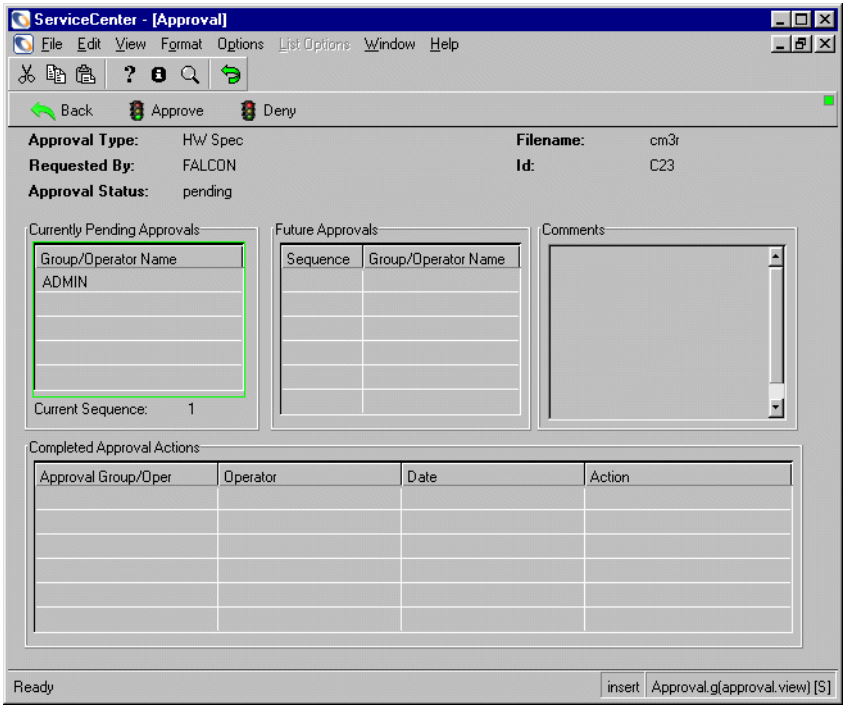


Figure 10-14: Approve and Deny buttons made available in the *Approval* form

The Retract button is made available to a user with the proper approval rights, giving that user the opportunity to retract a previously approved change or task phase (see Figure 10-15 on page 449).

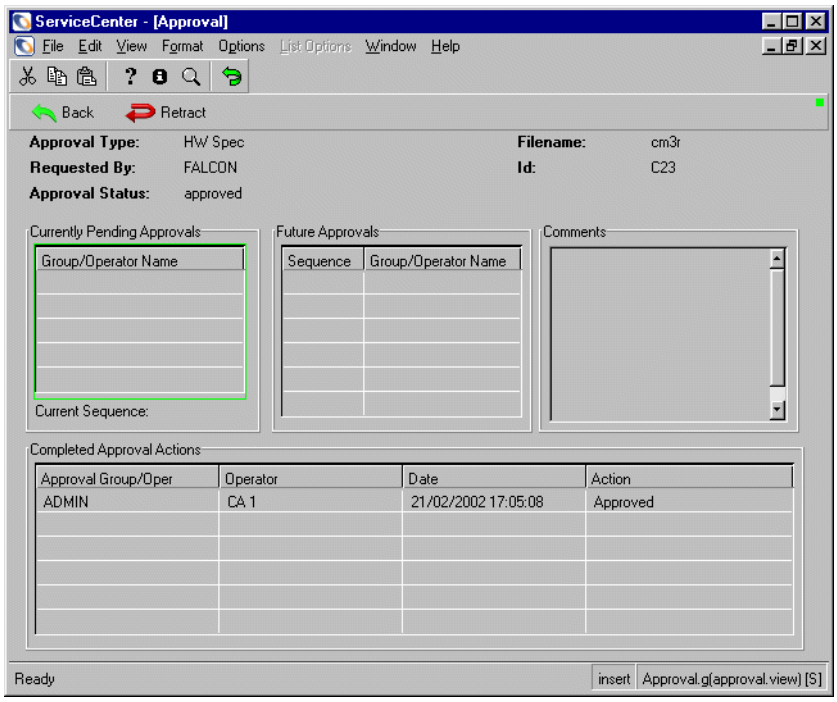


Figure 10-15: Retract button available in the *Approval* form

Approval Options

Access to these options is granted in the *Approval* form. When reviewing a change or task phase, click Approvals tab, and then double-click on the *Approval Type* (shown in Figure 10-13 on page 447).

The *Approval* form is opened and the following options are made available in the Options menu (see Figure 10-16 on page 451).

Option	Description
Print	To print the current record on the default printer.
Override	To access the override options, which include approve, deny, or retract one or all of the approvals within a record and approve current to approve the current record. Override authority is controlled in an operator's Change Management security profile record. The override option is a powerful tailoring feature and is normally made available only to operators with SYSADMIN or CM3ADMIN capability.

A message in the status bar indicates whether you approved, denied, or printed the change.

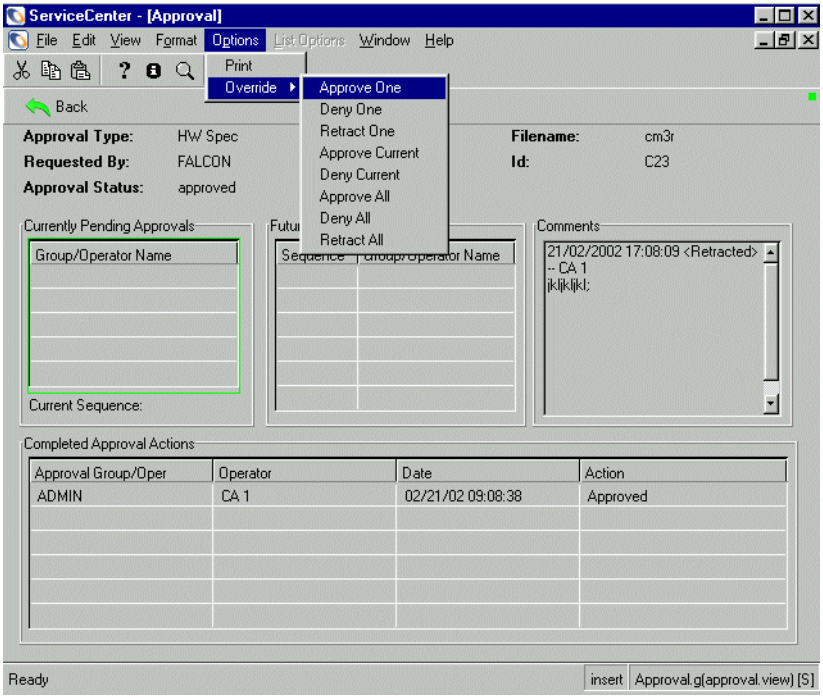


Figure 10-16: Print and Override options available in the *Approval* form

Using Approvals in an Individual Change or Task Phase

You can approve a change or task phase only if it is designated for approval and you have approval authority.

1 Access a change or task phase record.

2 Select **Options**>**Approval**>**Approve** from the menu bar.

Note: If approvals are not required for the category of a record, Approval is not displayed in the Options menu.

-or-

a Go to the *Approval* form and access the approval buttons and options, as described in *Approval Buttons* on page 447 and *Approval Options* on page 450.

b Click **Approve** or **Deny**.

Change and Task Mass Approvals

To approve multiple change or task records:

1 Access the **Change Queue** or **Task Queue** (*sc.manage.cmr*) form, or click **Search Changes** or **Search Tasks** to query for a list of open changes or tasks.

For information on querying for changes or tasks, see *Search for a Change or Task* on page 420.

Note: The following steps use *changes* as an example. You can use the same steps to mass approve tasks by accessing tasks. If you do not have a login with the proper approval and you want to do this exercise, try login *CA 1* or *CM 1*.

Note: Typically the *ADMIN* and *SYSADMIN* Change user profiles should have Mass Approval rights checked. Be sure **Mass Approve** is checked (*true*) in the Approval/Print tab of the Change user profile.

2 Select **Options**>**Approval**>**Approve** from the menu bar in the *sc.manage.cmr* form.

If you have approval in multiple groups, a **Select Groups** approvals box displays for the records you selected (see Figure 10-17 on page 453).

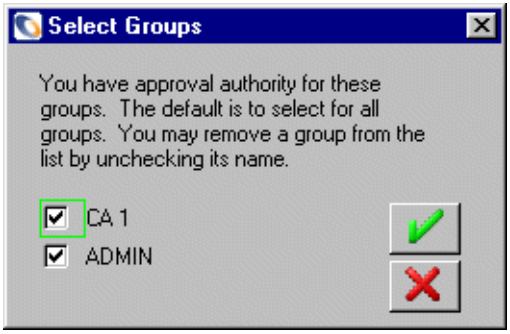


Figure 10-17: Approval Group Selection box

3 Select the Approval Group for which you want to approve records.

a All groups are selected (checked) by default. Leave the boxes selected for the group or groups you want to approve. You may uncheck any others that you do not want to approve in this session.

b Click **OK**.

A list of changes pending approval displays (Figure 10-18 on page 454).

- If you checked the **Record List** option in the View menu, the mass approval option is available in the **List Options** menu (see Figure 10-18 on page 454).

- If the **Record List** option in the View menu is unchecked, the **MassApprove** button displays instead.

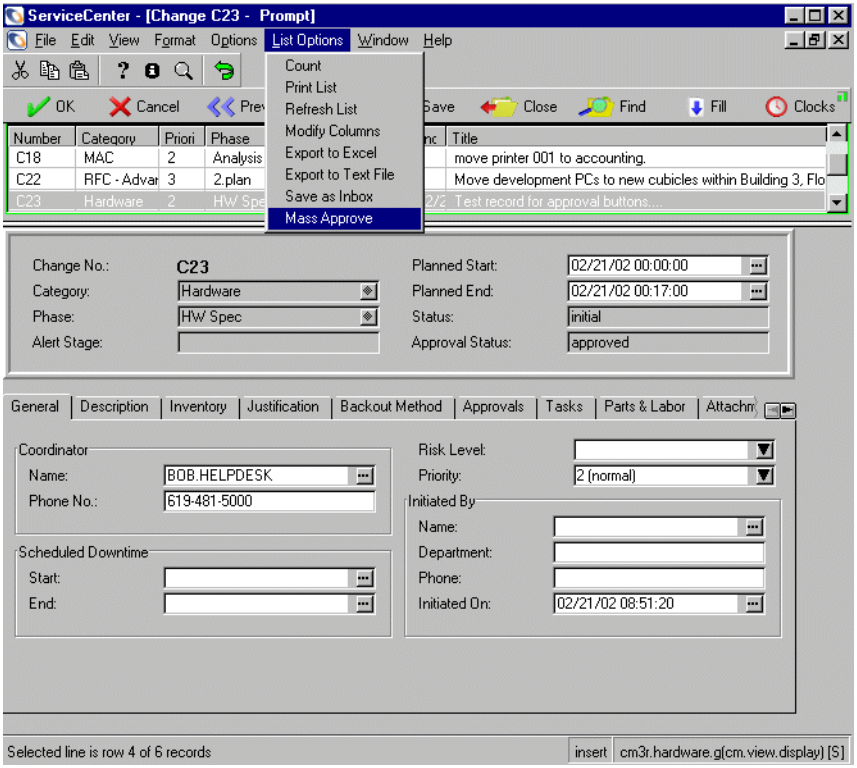


Figure 10-18: Changes Pending Approval

Important: Before you go on to the next step, understand that when you seek to *Mass Approve*, you are *not* prompted to make sure this is the action you want to take. When you select the **Mass Approve** option, all the records in the list that are awaiting your approval are immediately approved.

4 There are two ways you can approach mass approval.

- If you checked the **Record List** option in the View menu, the **Mass Approve** option is available in the **List Options** menu (see Figure 10-18 on page 454). Click **Mass Approve**.

-or-

- If the **Record List** option in the View menu is unchecked, the **MassApprove** button displays instead (see Figure 10-19 on page 455). Click the **MassApprove** button.

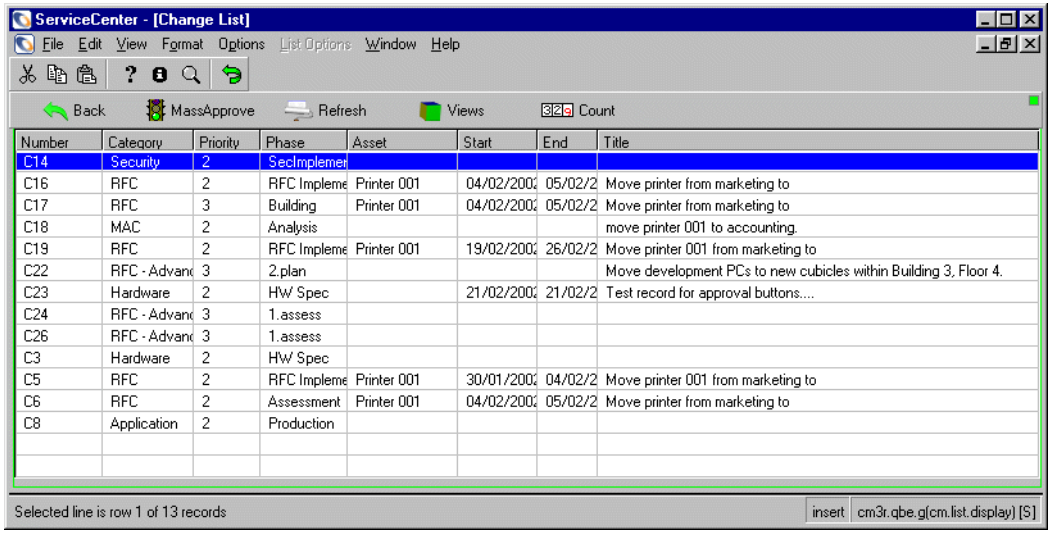


Figure 10-19: MassApprove button displayed in the *cm3r.qbe* form

A message displays in the status bar that states the change numbers and phases that have been approved.

If all the approvals have been made, the message in the status bar states: *The approval status has been set to approve. No other groups are pending approval.*

Request for Change (RFC) Category

A Request for Change (RFC) is opened when it is determined that a problem is caused by a failure of a Configuration Item (CI) in the IT infrastructure. An RFC is also opened when a new CI is added.

The RFC process consists of four phases of which no tasks are involved. Each phase is closed before the next phase is processed.

1. *Assessment*—the RFC is opened and approved.
2. *Building*—a change implementer is assigned. The implementer establishes a procedure for executing the change.
3. *Testing*—a change tester checks the procedure created by the change implementer.
4. *Implementation*—the RFC is implemented. The process is reviewed and the RFC is closed.

Figure 10-20 on page 457 shows the Request for Change (RFC) process.

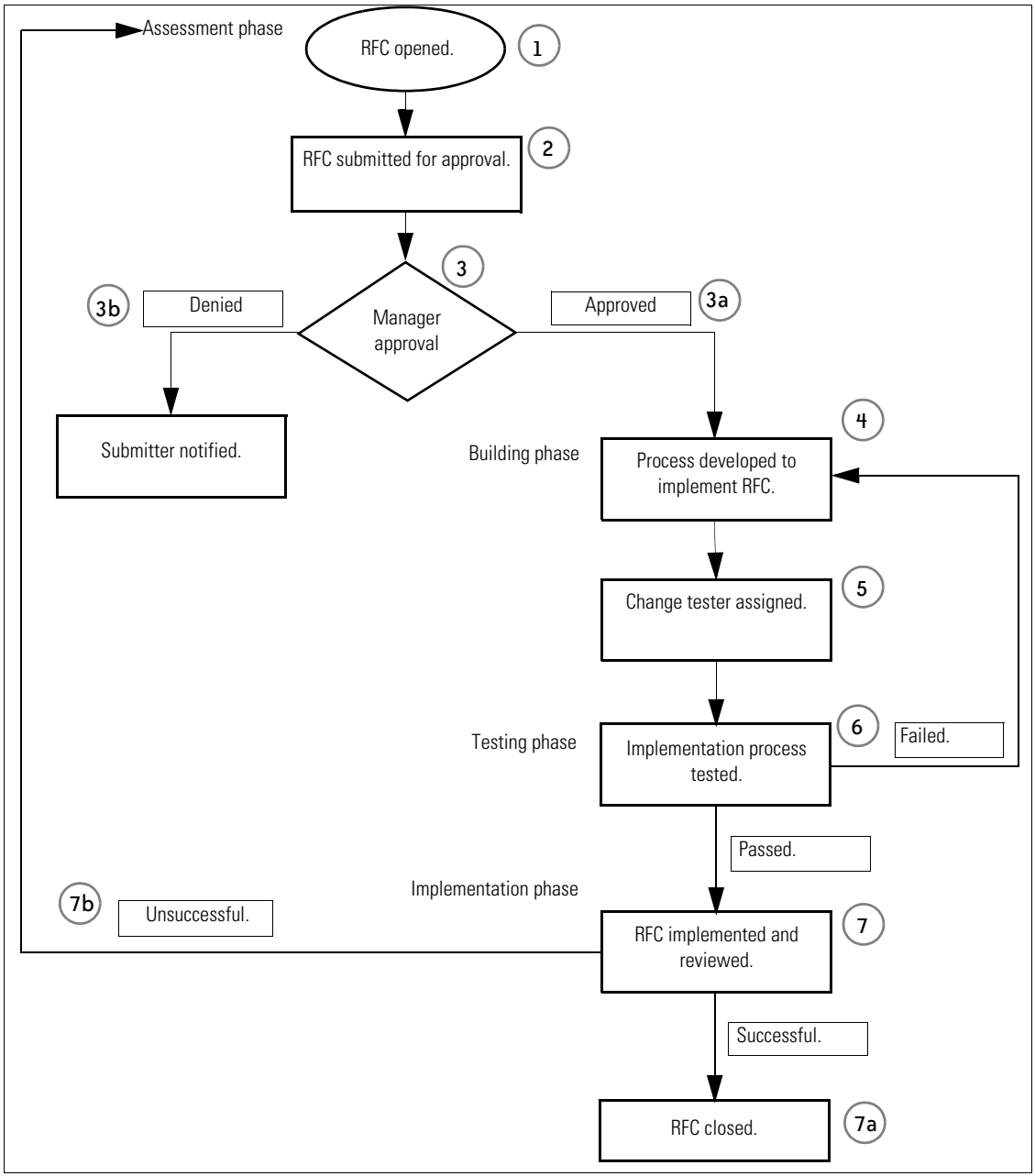


Figure 10-20: Request for Change Process

5 **Assessment** phase—an RFC is opened from Change Management.

6 The RFC is submitted for approval by the appropriate managers.

7 A decision is made on the change. The change manager either:

   a *Approves* the change. The Assessment phase is closed. The change process then moves to step 4.

   b *Denies* the change. The user who opened the change is notified.

8 **Building** phase—a change implementer is assigned to set up a process for implementing the change.

9 A change tester is assigned when the Building process has been completed.

10 **Testing** phase—the implementation process is checked by the change tester.

   a If the testing passes, the Testing phase is closed.

   b If the testing fails, the RFC returns to the Building phase for further assessment.

11 **Implementation** phase—the change is implemented and reviewed.

   a If implementation is successful, the RFC is closed.

   b If implementation fails, the RFC returns to the Assessment phase and the RFC must be reevaluated.

RFC Phases

The following procedures follow an example RFC through the four RFC phases. It is assumed that each phase would be processed by the person with the appropriate skills and responsibilities within an IT department. Therefore, although much of the functionality described can be reached from several ServiceCenter sample logins, specific logins for each phase are used in these procedures.

A bar chart on the manager Home menu displays the total number of open RFCs by current phase.

Assessment Phase

The *Assessment* phase consists of two parts:

- Initial opening of the new RFC.
- Approval of the RFC.

In this example, the RFC is opened by an administrator. It requests that a printer in the marketing department be moved to accounting.

Opening an RFC

To open a new RFC:

1 For this example, log on as an administrator.

2 On the Home menu, click **Change Management**.

3 On the Change Management menu, click **Open New Change**.

A QBE list of Change Management categories displays.

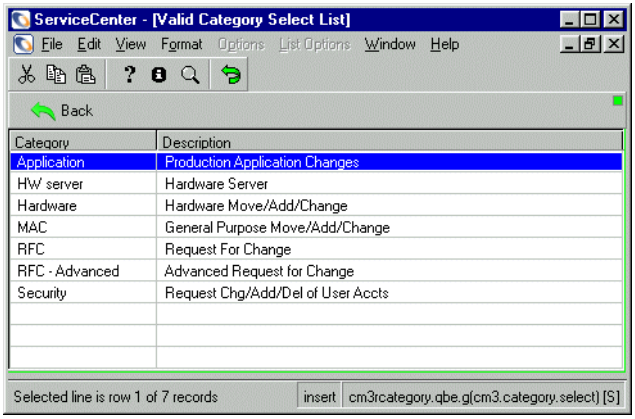


Figure 10-21: QBE List of Change categories

4 Double-click the RFC Category entry.

The Request for Change form displays.

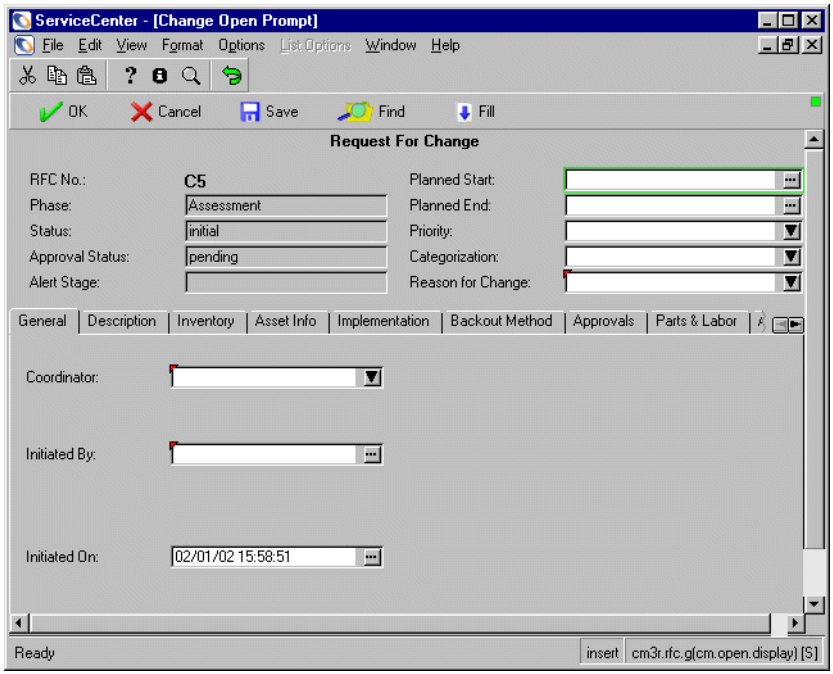


Figure 10-22: . New Request for Change form

The following fields are already filled in:

RFC No.: *xxxx*

Phase: Assessment

Status: Initial

Approval Status: pending

The **Alert Stage** field is grayed out and is filled in automatically by the system as the RFC reaches various alert stages. For more information on alerts, refer to *Elements of Change Management* on page 412.

5 Fill in the other fields at the top of the form as follows.

a In the **Planned Start** field, type the date and time you want the work to start. Use the format mm/dd/yy hh/mm/ss. Click **Fill** to bring up a calendar and select a date.

b In the **Planned End** field, type the date and time you want the work to be completed. Click **Fill** to bring up a calendar and select a date.

c In the **Priority** field, click the Down arrow to access a list of priority codes:

0 - Urgent

1 - High Priority

2 - Medium Priority

3 - Low Priority

For this example, select 2 - Medium Priority.

d In the **Categorization** field, click the Down arrow to access a list of categorization codes:

1 - Minor Impact

2 - Significant Impact

3 - Major Impact

For this example, select Minor Impact.

e In the **Reason for Change** field, click the Down arrow to access a list of possible reasons for the change.

For this example, select Incident/Problem Resolution.

6 Go to the General tab (pictured in Figure 10-22 on page 460) and fill out the fields as follows:

a In the **Coordinator** field, click the Down arrow to access a list of possible change coordinators (such as, *CM 1* or *CM 2*).

For this example, select CM 1.

b In the **Initiated By** field, click **Browse** and then click **Search** to display a QBE list of contacts. Double-click on an entry to populate the contact information into the field.

For this example, select Brown.

c The **Initiated On** field is automatically filled in with the current date and time.

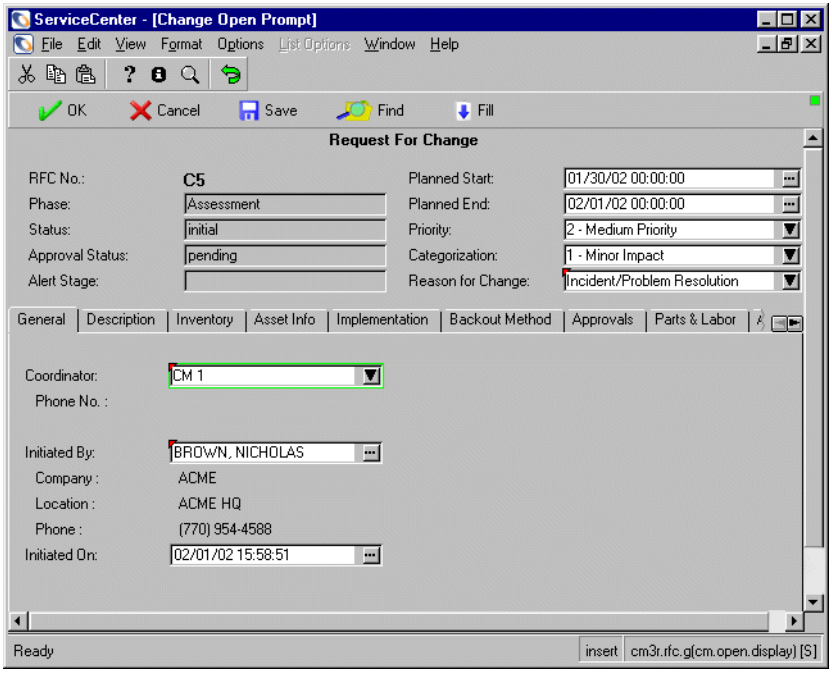


Figure 10-23: New Request for Change

7 Click the Description tab and fill out the fields as follows:

a In the **Description of Change** field, type a brief description of the nature of the change.

For this example, type Move printer001 from marketing to accounting.

b In the **Impact Assessment/Risk Analysis** field, type a brief description of the impact or risk involved with making this change.

8 Click the Inventory tab and fill out the fields as follows:

a In the **Asset IDs** field, click **Browse**. A Search Criteria box displays (Figure 10-24 on page 463) to help you narrow your search and select from a QBE list of assets with the search criteria you select.

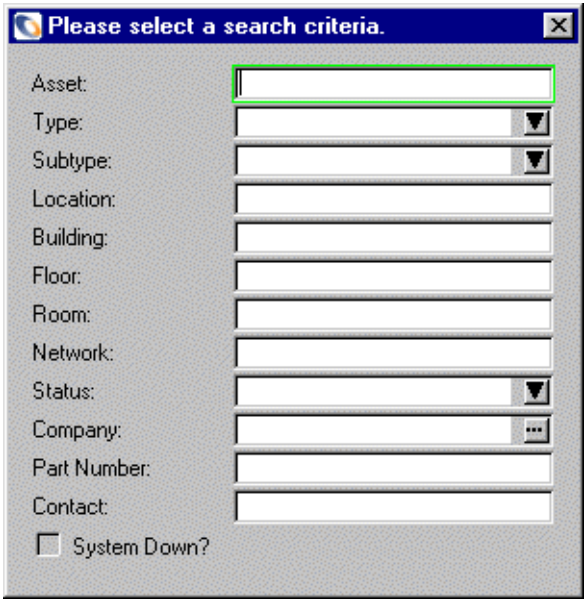


Figure 10-24: Asset IDs field Search Criteria dialog box

For example, Press **Enter** in the **Asset** field to look through and select from a QBE list of assets. To continue to narrow your search, click **Browse** in the **Company** field to select a company. The **Type**, **Subtype**, and **Status** fields offer a drop-down selection list to help refine your search. These selections populate the asset information into the fields on the RFC form.

For this example, press **Enter** in the Asset field of the Search Criteria dialog box and select printer001.

The information about the asset is filled into the fields on the RFC, including the asset ID, model, serial number, vendor name, and location.

b In the Changed Properties structure of the Inventory tab, there are two columns: **Name** and **New Value**.

- In the **Name** column, click the down arrow by a field to display a drop-down list. Select the properties of the asset that you would like to change. In the example select Building, Floor, and Room, since the example RFC involves moving a printer from one location to another.

- In the **New Value** column, type the changes you want to take effect. In the example enter the new building, floor, and room numbers (see Figure 10-25 on page 464).

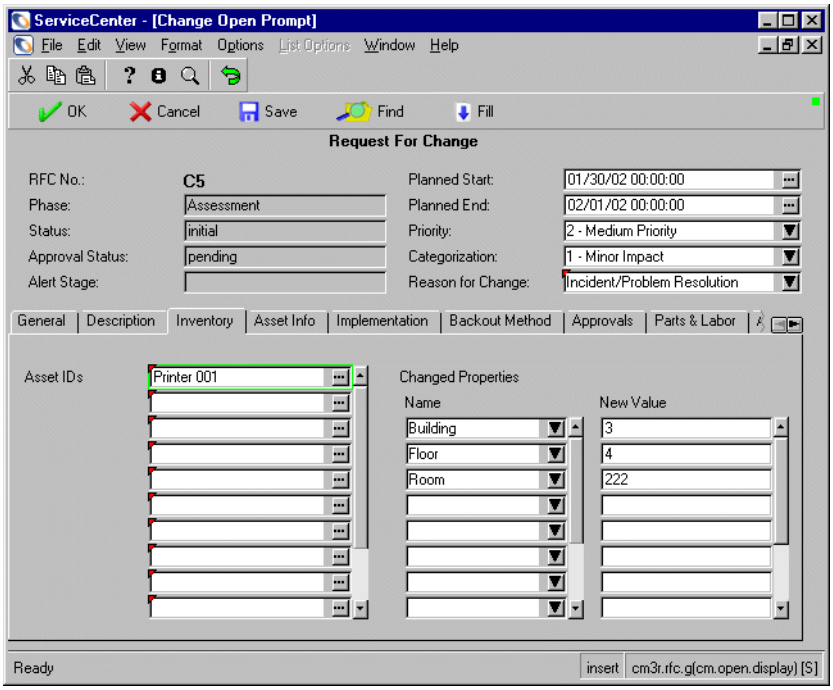


Figure 10-25: Inventory tab of New Request for Change form

9 Click the Asset Info tab. Add any other pertinent information or comments about the asset.

10 Click the Implementation tab. Type a **Start Date/Time** and **End Date/Time** in the Scheduled Implementation structure. Click **Fill** to bring up a calendar and select a date.

The Actual Implementation structure fields is filled out later in the process when the change has been implemented.

11 Click the Backout Method tab. Type a process for backing out of the change. For the example: The printer is not moved to the new location.

Note: The fields in the Approvals tab are filled in automatically when the RFC is approved.

12 Click the Parts & Labor tab. If the asset is covered by a service contract, select the contract name from the drop-down list in the **Service Contract** field. The other fields are filled in when the work is performed.

13 Click the Attachments tab (available for Windows- and Java-based clients only). You can add files from other applications (for example, an Excel spreadsheet) that provide additional information about the change.

To attach a file:

- Drag the file into the field provided on the Attachments tab.

  -or-

- Right-click in the Attachments box. On the pop-up menu, select **Insert**. A dialog box displays. Select **Insert Object** then **Create from File**. Browse to the location of the file you want to attach. Double-click the file name, and then click **OK** when the dialog box is redisplayed.

14 When you have finished filling out the RFC form, click **Save**.

The following message displays in the status bar: *Change <#> Phase Assessment is Opened by <Login Name>* (Figure 10-26 on page 465).

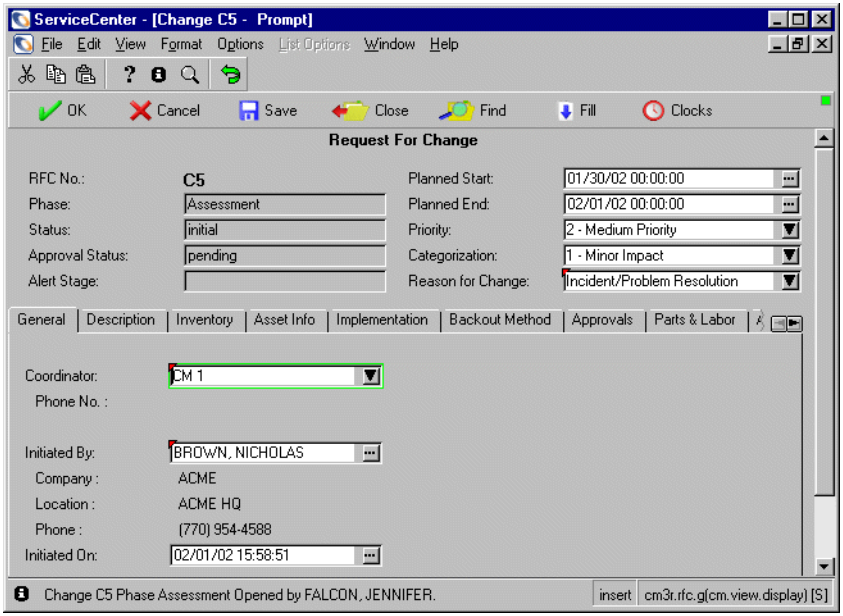


Figure 10-26: Saved Request for Change

Approving an RFC

Approvals are based on the Service Level Agreements (SLAs). So when you have approval managers and change sponsors involved, the managers and sponsors must be on the approver list for each appropriate phase. Once an RFC has been opened, it must be approved before it can move on to the *Building* phase.

All new RFCs must be approved by a manager or Change Sponsor associated with the SLA. An RFC may require other approvals, based on the **Categorization** field:

- An RFC with a risk assessment of 3 (Major Impact) also requires approval by an IT director.
- An RFC with a risk assessment other than 1 (Minor Impact) must be approved by a member of the Change Advisory Board (CAB).

To approve an RFC:

1. Log on as a Change Manager (for example, *CM 1*).
2. Access the RFC you want to approve. Refer to *Search for a Change or Task* on page 420.
3. Click the Approvals tab to find out which approvals are needed (Figure 10-27 on page 466). The type and status of approvals are listed. For this example, note that there is an **Approval Type** of *Assessment* and **Approval Status** of *pending*. This information lets you know who should be involved with the approvals at this phase. In this case, an Approval Group with the *Assessment* **Approval Type** is needed for the approval.

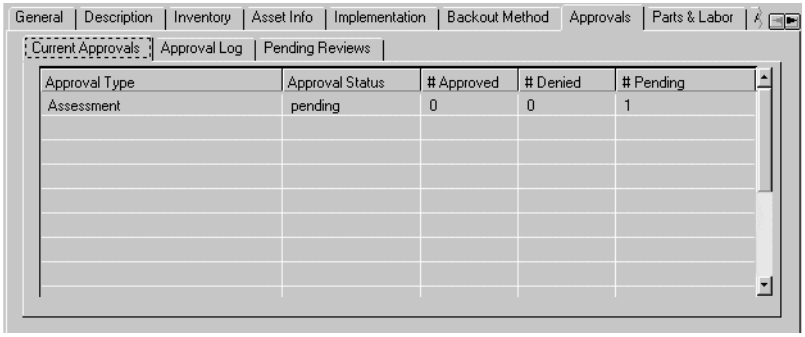


Figure 10-27: Approval Type and Approval Status in the Approvals tab

Note: When an RFC requires more than one approval, the approvals must be done in the order listed in the Sequence columns, with number 1 first, and so on.

4 Double-click the approval type in the **Approval Type** field to learn what Approval Group has this Approval Type.

For this example, double-click **Assessment**. Currently pending approvals information displays in the *Approval* form (Figure 10-28 on page 467).

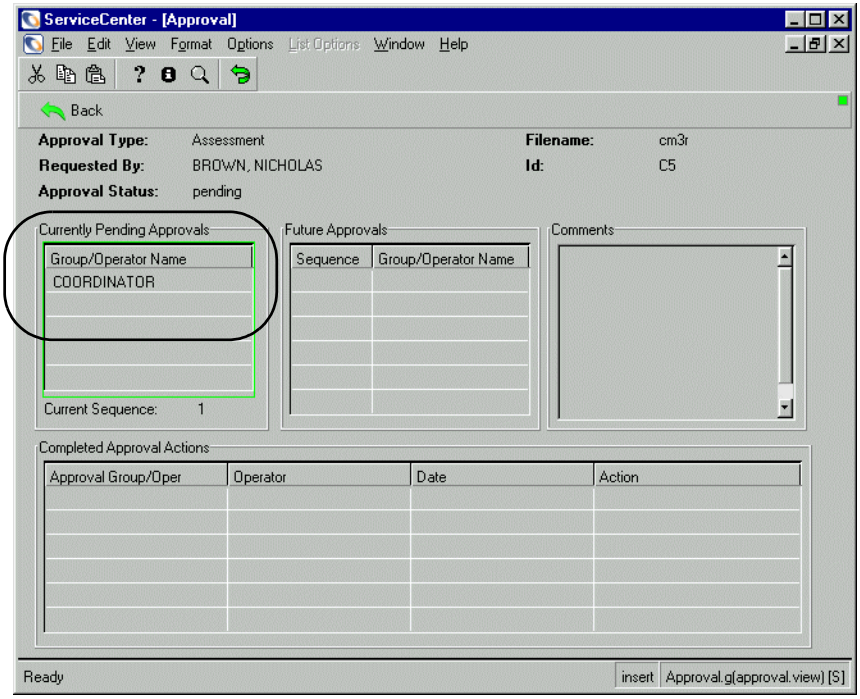


Figure 10-28: Currently pending approvals information in the *Approval* form

Note that the *COORDINATOR* user profile holds the **Approval Type** of *Assessment*.

Important: The login name *must* be a member of the necessary Approval Group *and* have the correct Change Management user profile. Otherwise, the login name cannot approve the change. Approvals rely on both the correct Change user profile and membership in the Approval Group.

For this example: The Login Name of *CM 1* has an out-of-box Change Management user profile of *COORDINATOR and* is a member of the *ASSESSMENT* Approval Group type, so *CM 1* can approve this RFC.

5 Click the General tab and decide, from the information provided, whether you wish to approve or deny the RFC.

Note: If approvals are not required for the category of a record, Approval is not displayed in the Options menu.

6 Choose **Options>Approval>Approve**.

The **Approval Status** is changed to *approved* (Figure 10-29). The following message displays in the status bar: *The Approval Status has been set to approved. No other groups are pending approval.*

If you wish to use the approval buttons and options available in the *Approval* form:

a Go to the *Approval* form and access the approval buttons and options, as described in *Approval Buttons* on page 447 and *Approval Options* on page 450.

b Click **Approve** or **Deny**.

- To approve an RFC, see *Approving an RFC* on page 466 and *Approving/Denying RFCs* on page 499.
- To deny an RFC, see *Approving/Denying RFCs* on page 499.

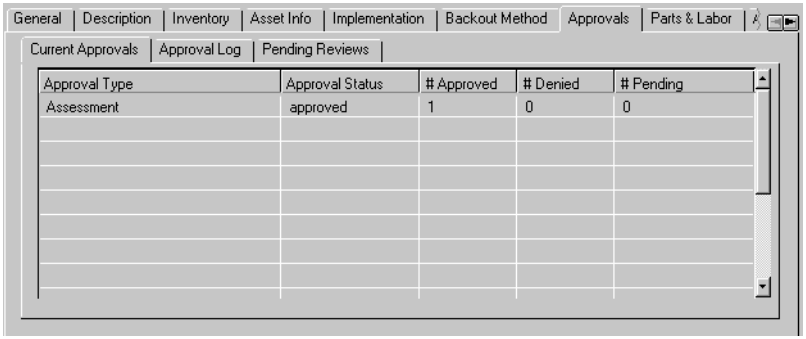


Figure 10-29: Approving an RFC Change Request

7 Click the Approval Log tab to view the results of the approval (Figure 10-30).

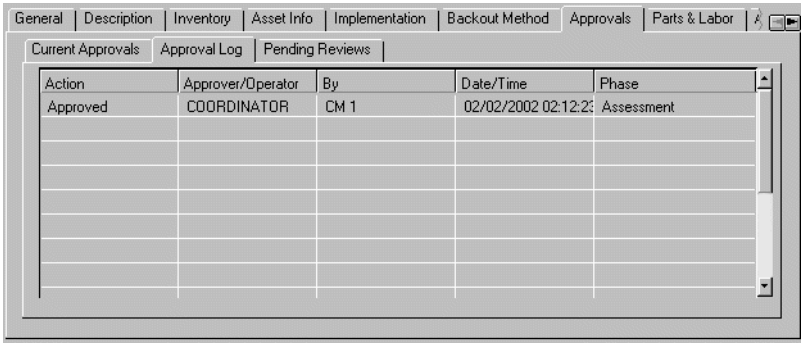


Figure 10-30: Details of the approval in the Approval Log tab

The following information displays:

- The approval action taken (*Approved*).
- The Change Management user profile and login name of the person processing the approval.
- The date and time of the approval.

8 If this is the only approval required for this RFC, click **Back**, and then click **Close** to complete the *Assessment* phase.

Note: If other approvals were needed for the RFC Change request, the other approvers would have to review and handle the approval process. For this exercise, however, there is only one approval needed for this RFC Change request.

When all required approvals have been completed and the *Assessment* phase of the RFC has been closed, a new field, **Assigned To**, displays on the RFC form (Figure 10-31). This field allows you to assign the RFC to the appropriate person to implement the change.

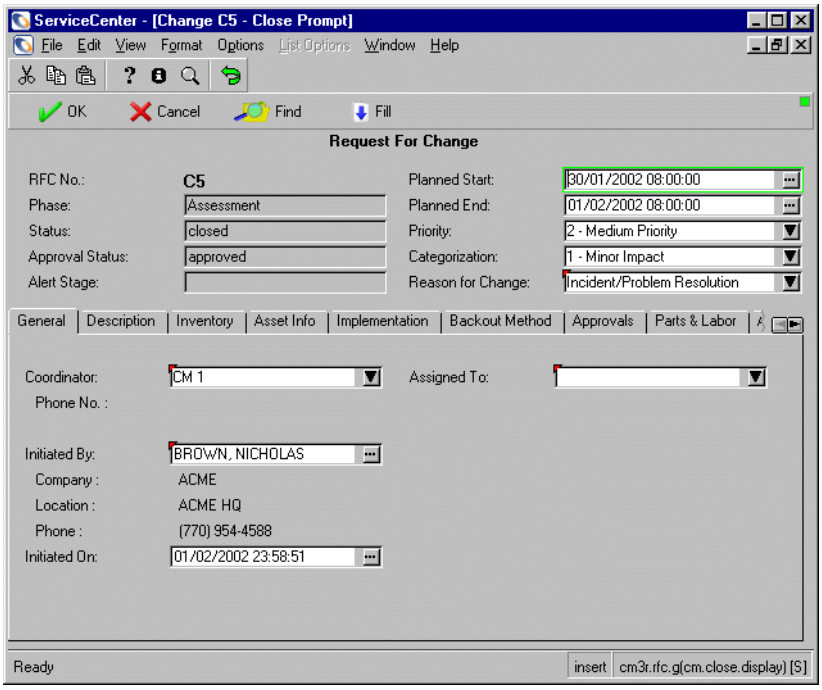


Figure 10-31: Request for Change with Assigned To Field

9 In the **Assigned To** field, click the down arrow to display a drop-down list and select the name of the person to whom you want to assign the RFC.

For this example, select *SUSIE.SUPERTECH*.

10 Click **Close**, and then click **OK** to complete the *Assessment* phase and move on to the *Building* phase.

Note: The **Phase** field has changed to *Building* and the **Status** field has changed to *initial* -- the *initial* status of the *Building* phase.

The following message displays in the status bar: *Change <#> Phase Building Opened by <login name>*.

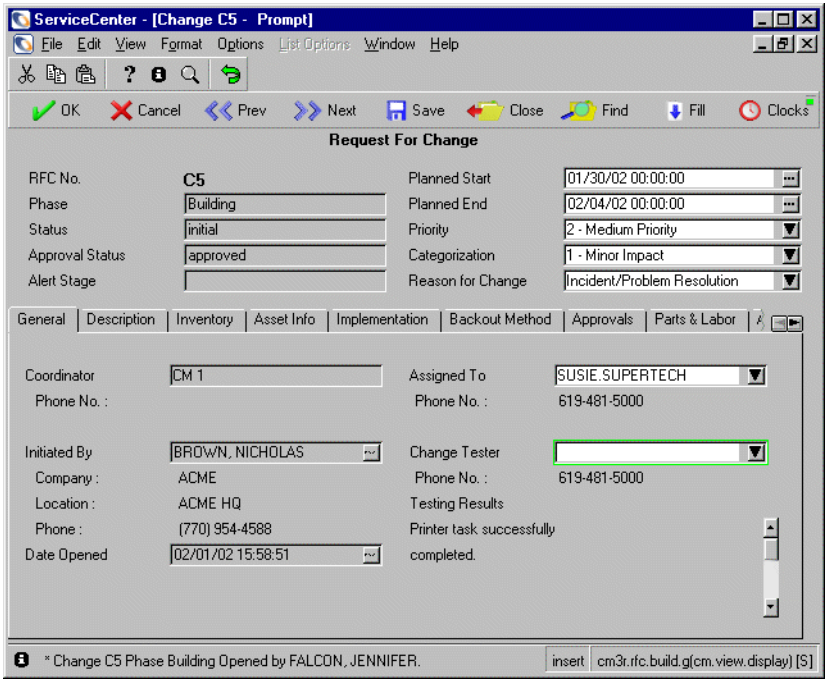


Figure 10-32: RFC Building phase opened in the RFC Change request

Building Phase

The *Building* phase of an RFC allows the personnel involved with implementing the change to ensure that all processes work smoothly.

For example, in the sample RFC, a printer is being moved from one department to another. The change coordinator could check with both departments to make sure that this move does not adversely impact either department. The implementer would also need to ensure that facilities personnel are available to process the move.

1 There are no tasks involved with the RFC Change request, so the change coordinator notifies *SUSIE.SUPERTECH* of her new assignment through SC mail.

   a Choose **Options>Notify**.

   For this example, prepare the notification and address it to *SUSIE.SUPERTECH*.

   b Click **Mail** to send the notification to *SUSIE.SUPERTECH* through SC mail.

   SUSIE.SUPERTECH is notified of her new assignment and the details of the assignment is be included in the SC mail message.

2 If the change tester is not the change implementer (in this case, *SUSIE.SUPERTECH*), assign that task now.

   For this example, assign *BOB.HELPDESK* as the **Change Tester**.

3 Click **Save** and exit the new RFC Change request.

Receiving Notification of an Assigned Task Through SC Mail

Because the newly created RFC Change request does not create tasks, you send notification of the new assignment through SC mail.

Note: The mail is delivered within ServiceCenter and not an email client such as Microsoft Outlook.

For this example, you sent *SUSIE.SUPERTECH* a notification to let her know of her new assignment.

The steps that *SUSIE.SUPERTECH* takes to learn of and work on her new assignment are as follows:

1 Choose **Mail>Read Mail>Change Management**.

SUSIE.SUPERTECH receives notification of the new assignment for Change number C5.

2 Click **Show Change** in the menu bar.

SUSIE.SUPERTECH views the Change request number C5 as it displays.

3 *SUSIE.SUPERTECH* works on her new assignment.

4 When her written procedure or assignment is complete, *SUSIE.SUPERTECH* clicks **Close**.

This allows *SUSIE.SUPERTECH* to complete her written procedure and either assign herself or somebody else as the change tester, if one was not originally assigned. For instructions on assigning a Change Tester, see *Testing Phase* on page 474.

For this example, *BOB.HELPDESK* was earlier assigned as the Change Tester. *BOB.HELPDESK* tests the change implementer's written procedure.

5 Click **OK**.

The following message displays in the status bar: *Change <C##> Phase RFC Testing Opened by <login name>*. See Figure 10-33.

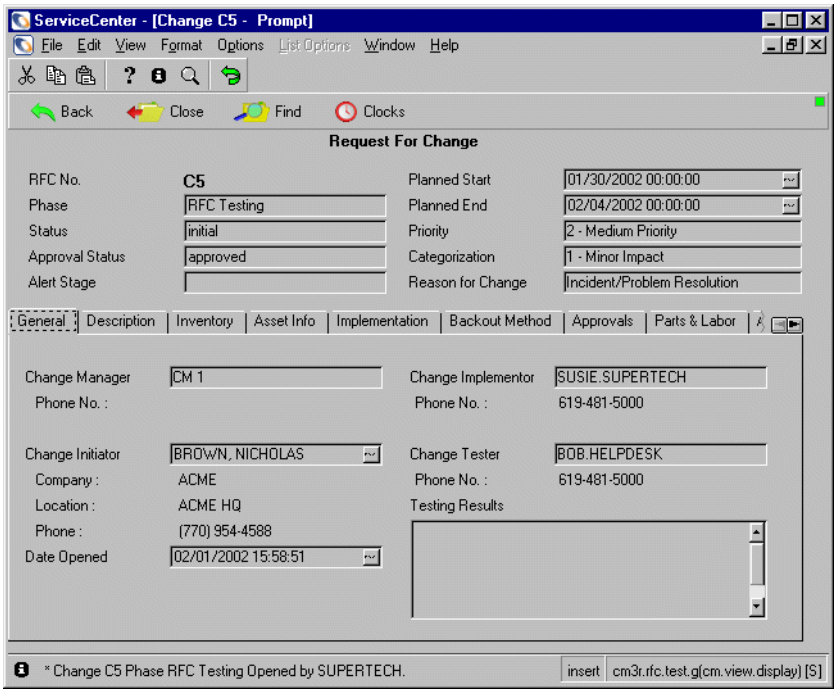


Figure 10-33: Change Implementer opening the Testing phase

Testing Phase

In the *Testing* phase, the change tester checks the procedure created by the change implementer to see if the expected implementation succeeds.

Assigning a Change Tester

Technicians and managers have access to assigning a change tester.

Logged in as a technician and assigning a change tester:

1. Logged in as a technician (such as, *SUSIE.SUPERTECH*), access the RFC you want to assign to a change tester. In this case you access the RFC by clicking on **CM Task List** within the **Call Queue** or **Incident Queue**.
2. A new field displays where you can assign a person to test the work. Click the down arrow in the **Change Tester** field and select the name of the person you want to assign to do the testing.
3. Click **Save** and **Close** to move on to the *Testing* phase.

Logged in as a manager and assigning a change tester:

1. Logged in as a manager (such as, *MAX.MANAGER*), click **close**.
2. Click the down arrow in the **Change Tester** field and select the name of the person you want to assign to do the testing (Figure 10-34 on page 475).
3. Click **OK**.

The *Building* phase is closed, and the *RFC Initial Testing* phase with an *initial* status is opened.

Note: While in the *Building* phase, the format is *cm3r.rfc.build.g*.

While in the *RFC Initial Testing phase*, the format is *cm3r.rfc.test.g*.

Testing Phase Completed

After testing has been completed by the assigned change tester (in this example, *BOB.HELPDESK*), log on as the change implementer (technician - *SUSIE.SUPERTECH* in this example) and fill in the test data as follows:

1. Click on **Call Queue** or **Incident Queue**. Click **Change Management** at the top of the inbox to access the Change Management inbox.
2. In the list of changes displayed, double-click the RFC you want to view.

3 Click **Close** to complete the *Testing* phase. A new tab, Test Results, displays.

4 Click the **Pass** or **Fail** check box, and fill out the **Testing Results** field (Figure 10-34 on page 475).

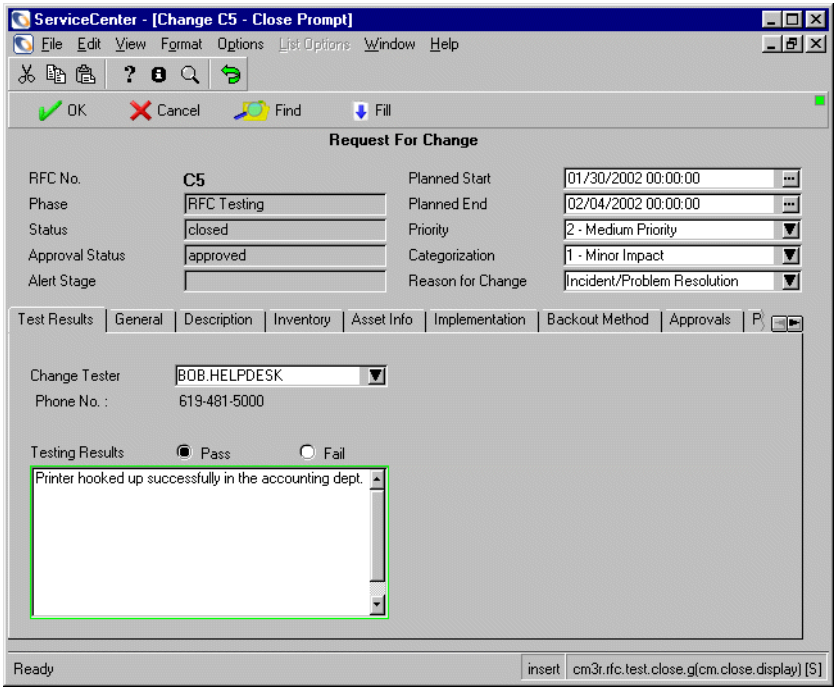


Figure 10-34: Request for Change Test Results

Note: If the test failed, the RFC cycle returns to the *Building* phase. If the test passed, the RFC moves on to the *Implementation* phase.

5 Click **OK** to move on to the *Implementation* phase.

The *RFC Testing* phase is closed and the *RFC Implementation* phase is opened at an *initial* status.

6 The following Confirmation dialog box displays (Figure 10-35 on page 476), so that the change implementer can review and verify the new asset information. The change implementer makes any necessary information updates.

In this example, printer 001 has been moved to the accounting department which is located at Building 3, Floor 4, Room 222. This information is correct.

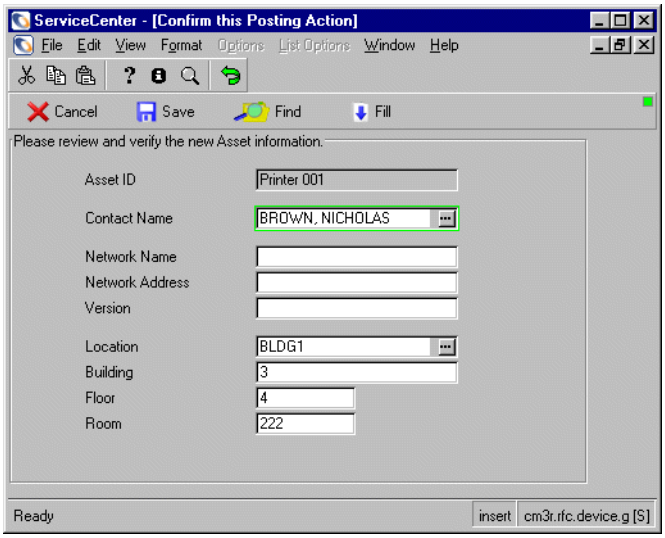


Figure 10-35: Review and verify new asset information

7 Once the information has been changed and verified, click **OK** to exit back to the original mail request where you can forward the original mail request or notify the change coordinator through regular office procedures that this change has been implemented.

Implementation Phase

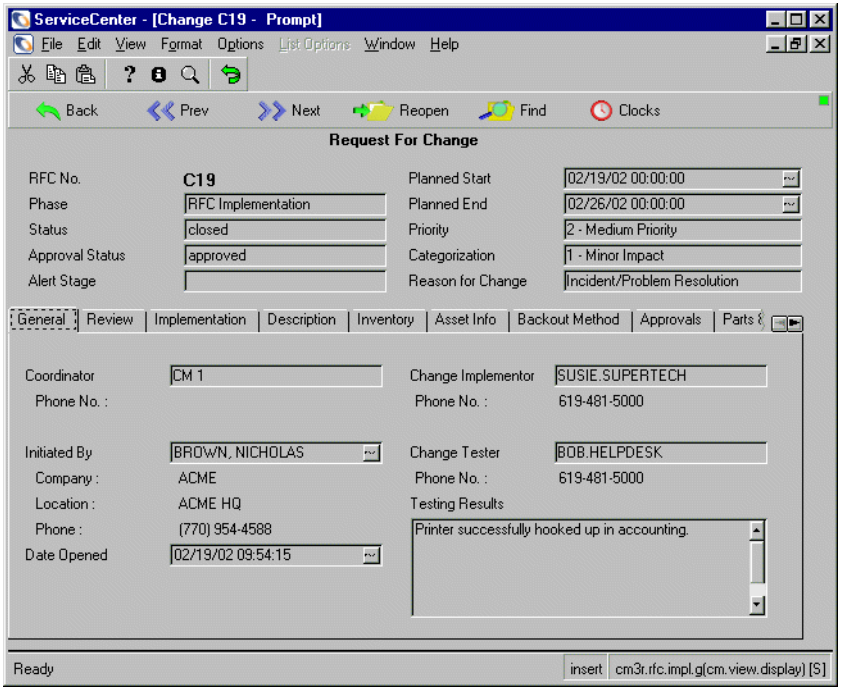


Figure 10-36: RFC Implementation phase has been closed

After testing has been completed, the change requested by the RFC is opened in the *Implementation* phase. After the implementation has been completed, you can record information about the implementation. A review process is included in the *Implementation* phase.

1 Log on as a change manager (such as, *CM 1*).

2 Access the RFC you want to process. Refer to *Search for a Change or Task* on page 420 for details on searching for a change or task.

3 Click the Implementation tab, and fill in the **Actual Implementation** fields with the **Start date/time** and **End date/time** (Figure 10-37 on page 478).

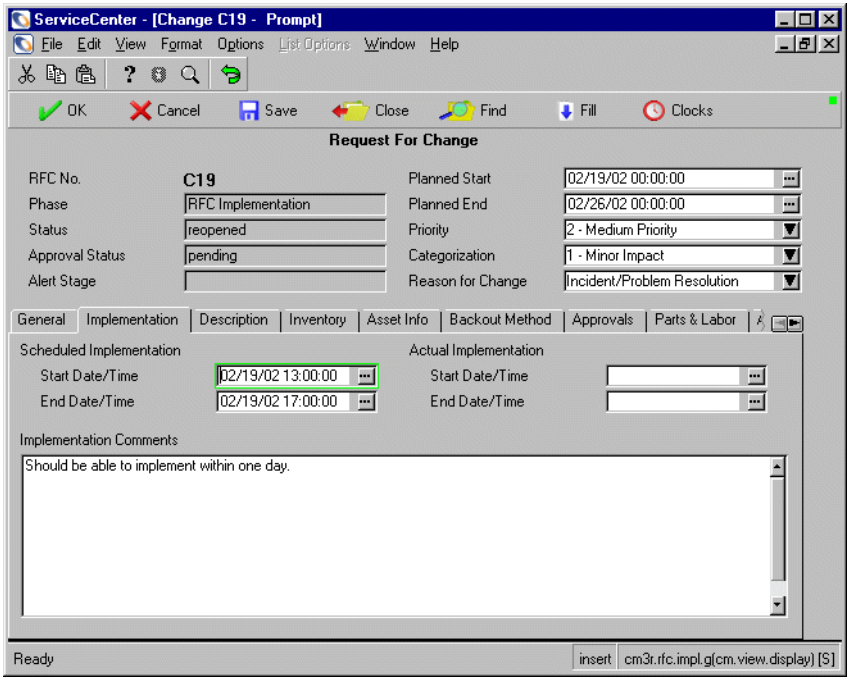


Figure 10-37: Request for Change Implementation tab

4 In the **Implementation Comments** field, type any pertinent information about the implementation.

5 In the Header fields at the top, go to the **Reason for Change** field (if not filled in earlier) and select a reason for the change in the drop-down list.

6 If there are any assets involved, go to the Inventory tab and enter the information about the assets in the **Asset IDs** field(s) (if not filled in earlier). Click **Fill** to bring up a record list and make the appropriate selection(s).

7 Click **Save**, and then click **Close**.

A new tab, Review, is added to the RFC.

Review

The review process allows you to document the success or failure of the change implementation. You can also record any problems encountered during the implementation.

1 Complete the Review tab fields as follows (Figure 10-38 on page 479):

The **Review Date** field is automatically filled in with the current date and time.

a In the **Review Results** field, click the down arrow to select the appropriate code for this RFC.

b In the **Review Comments** field, enter any pertinent data about the RFC.

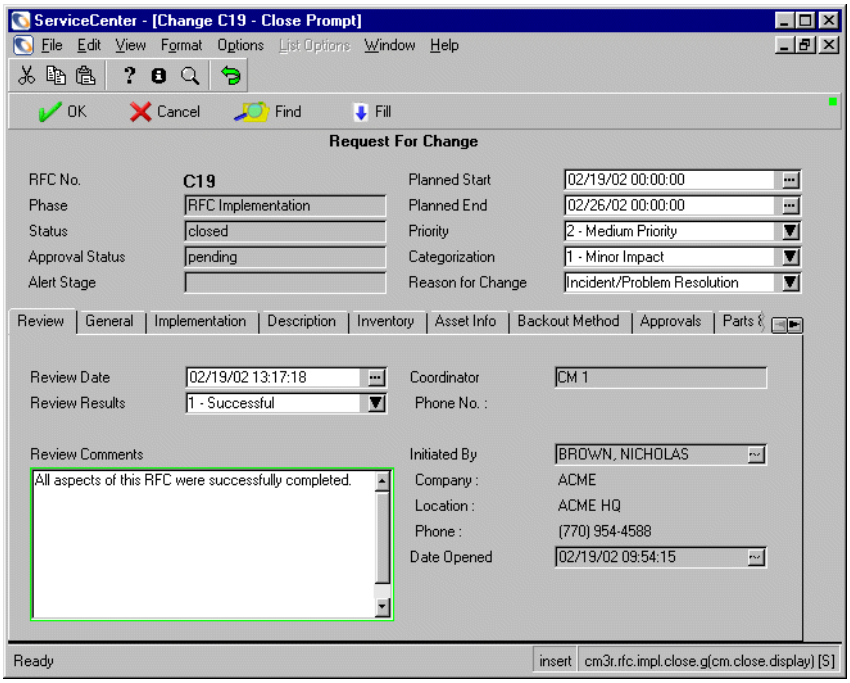


Figure 10-38: Request for Change Review tab

2 Click **OK**.

The RFC process is now complete and the RFC is closed.

Note: The *RFC Implementation* phase is at a *closed* status.

If a search is done later for this RFC, the record displays in read-only form, unless the RFC is reopened.

3 In this example RFC, a printer was moved from one location to the other. These location values were changed on the Inventory tab of the RFC (refer to Figure 10-25 on page 464). When an RFC is closed in which the properties of a device were changed, a dialog box displays to confirm these changes (Figure 10-39 on page 480).

Click **Save** to confirm the changes.

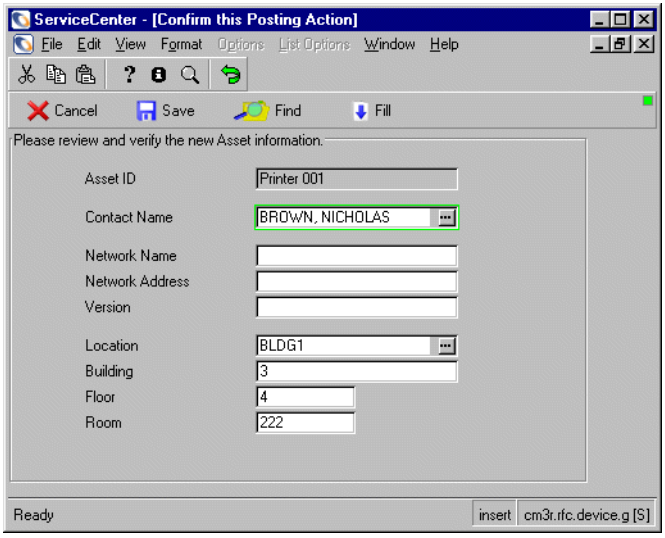


Figure 10-39: Confirm Posting Action

When you search on this RFC later, a **Reopen** button is added to the system tray (Figure 10-40 on page 481). A message in the status bar indicates that the Implementation phase is closed.

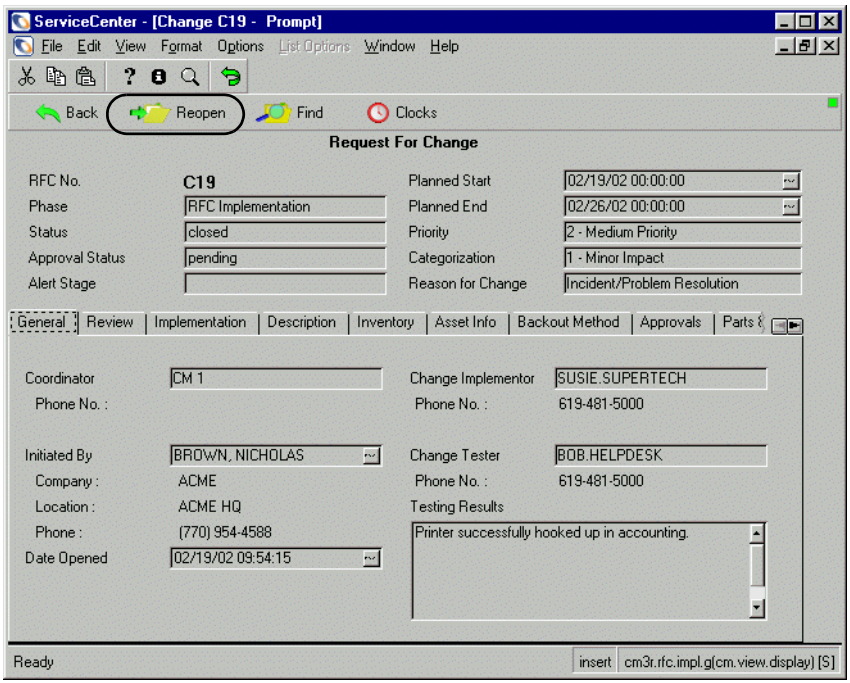


Figure 10-40: Reopen button

Request for Change (RFC) - Advanced Category

Request for Change (RFC) - Advanced is an out-of-box Change Management category solution, stemming from ServiceCenter's best practices and workflows. RFC - Advanced manages the operational risks and costs of system-wide changes, such as moving personnel, assets, and systems in a single business unit or multiple business units. The workflow is broken down into Opening a Call and the following five phases.

1. *Assess*—flag affected assets, making note of which assets are affected by the RFC, and create an estimate for RFC impact
2. *Plan*—Service Management team, Change owners, and Change Sponsors approve, produce a plan and quote, confirm or enter asset details, schedule tasks
3. *Build*—Service Management and Change sponsor approve, allocate and manage outside tasks
4. *Implement*—Service Management and Change Sponsor approve, define, view, close tasks, and manage outside implementation tasks
5. *Accept*—Change Owner and Change Sponsor review before final closure of RFCs

Each phase is closed before the next phase is processed.

Figure 10-41 on page 483 diagrams the Request for Change (RFC) - Advanced flow.

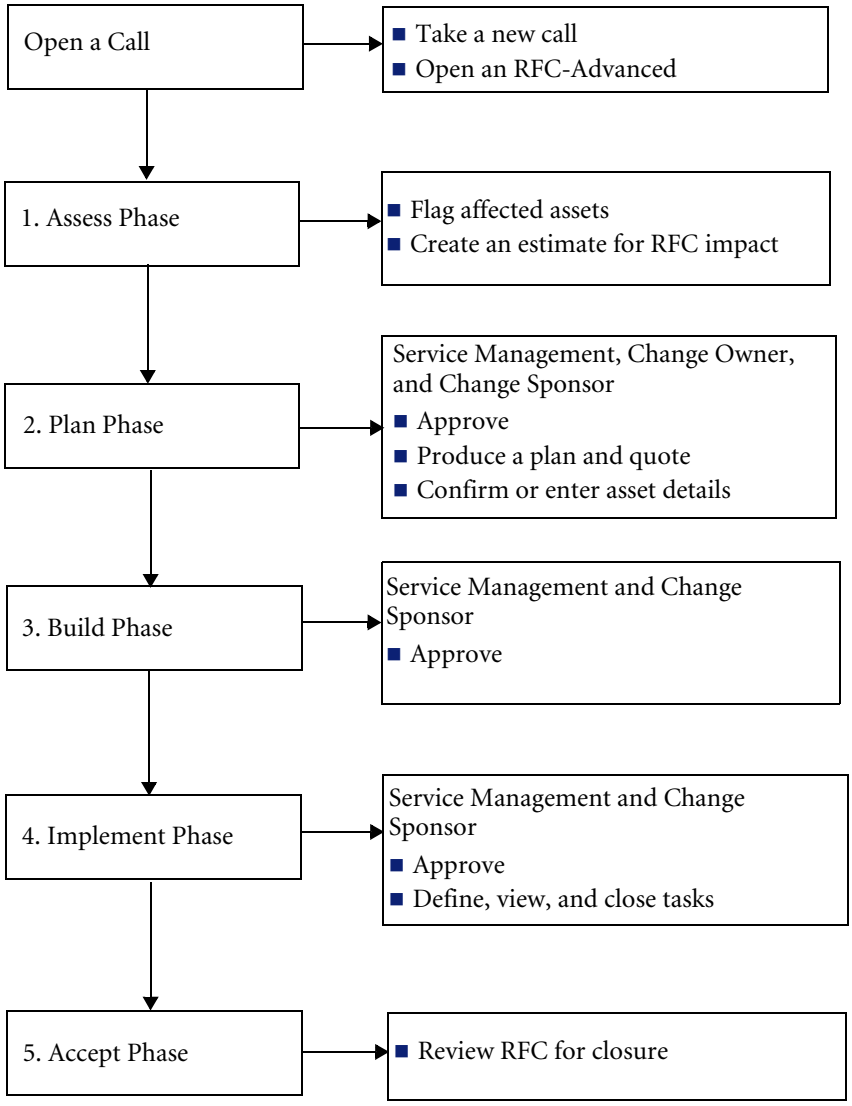


Figure 10-41: RFC - Advanced Flow

RFC - Advanced Phases

All RFC - Advanced changes are opened initially by opening a call. From there, the RFC - Advanced changes phases begin. The following procedures follow an example RFC - Advanced category through its change phases. It is assumed that each phase would be processed by the person with the appropriate skills and responsibilities within an IT department. Therefore, although much of the functionality described can be reached from several ServiceCenter sample logins, specific logins for each phase are used in these procedures.

A bar chart on the manager Home menu displays the total number of open RFCs by current phase.

Open a Call

Requests for Change (RFCs) come from three major sources: electronic forms, Incident Management, and Root Cause Analysis. Opening a call consists of two parts:

- *Taking a Call* on page 485

  Service Desk Agents (SDAs) and Change administrators log details of a change request. Calls to the help desk are routed to RFC management after the call is logged and the tasks are described in the Incident Management and Root Cause Analysis process. Electronic input is through the Intranet. For example a Java-based client enables a user to fill out an RFC using the Intranet.

  -and-

- *Opening an RFC* on page 489

  Calls, incidents, root causes, quotes, and changes are associated to each other when both are open and closed. For example, a fix has been applied to a network server and allows associations in both directions, such as change to call/root cause/incident/quote and call/incident/quote/root cause to change.

Taking a Call

To take a new call:

1 For this example, log on as an administrator (*FALCON*).

2 On the Service Management main menu, click **Take New Calls**.

3 A blank New Calls form displays (Figure 10-42 on page 485).

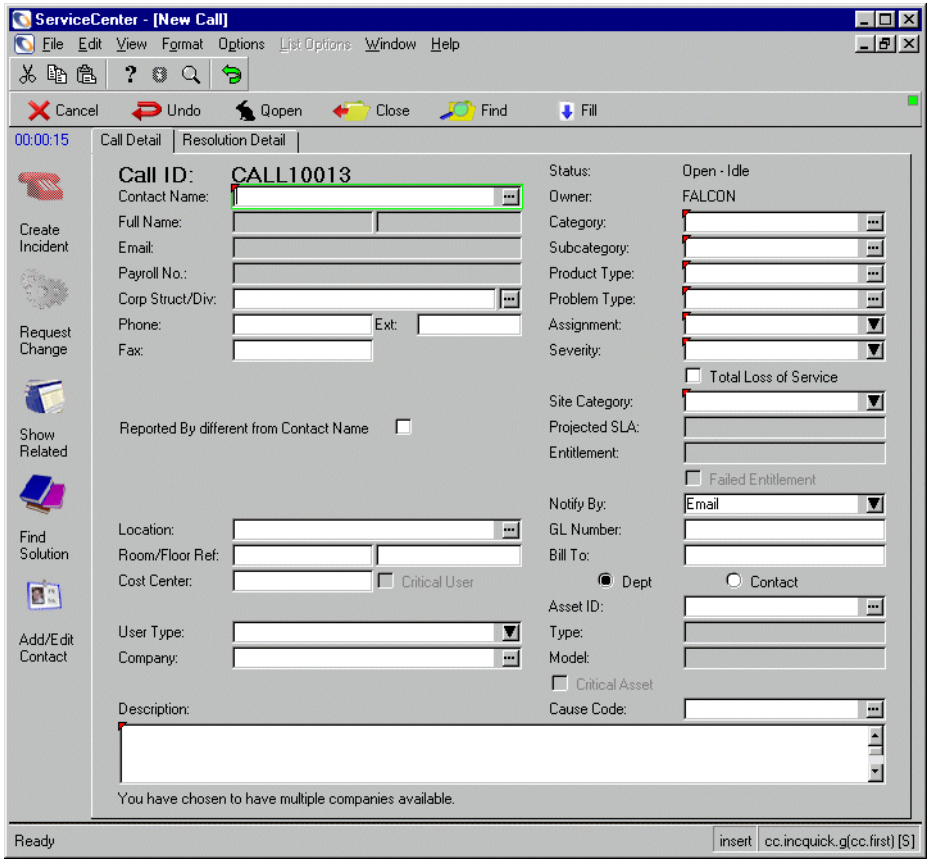


Figure 10-42: Taking a new call

4 Enter the initiator's details in the **Contact Name** field. Either:

- Type the full name (surname first) in the **Reported By** field and click **Browse** to complete other details of that person, including address, telephone number, and so forth.

  -or-

- Click **Browse**.

- A Search Criteria dialog box displays. Enter any particulars to narrow your search, or press **Enter** without entering any field values to display a QBE list of names.
- Double-click a name in the list to insert the name and details (address, telephone number, and so forth) in the appropriate fields of the New Call form.
- Double-click the asset name associated with the contact name. If you do not know the associated asset, click **Skip**.

5 If the call was taken from someone else other than the main contact, check the **Report By different than Contact Name** field. Then fill in the **Reported By**, **Phone**, **Ext.** and **Fax** fields with the information for the person from whom you took the call.

6 Once the contact details are complete, enter a description of the request in the **Description** field.

7 Click **Browse** in the **Category** field.

The *category.qbe* form displays (Figure 10-43).

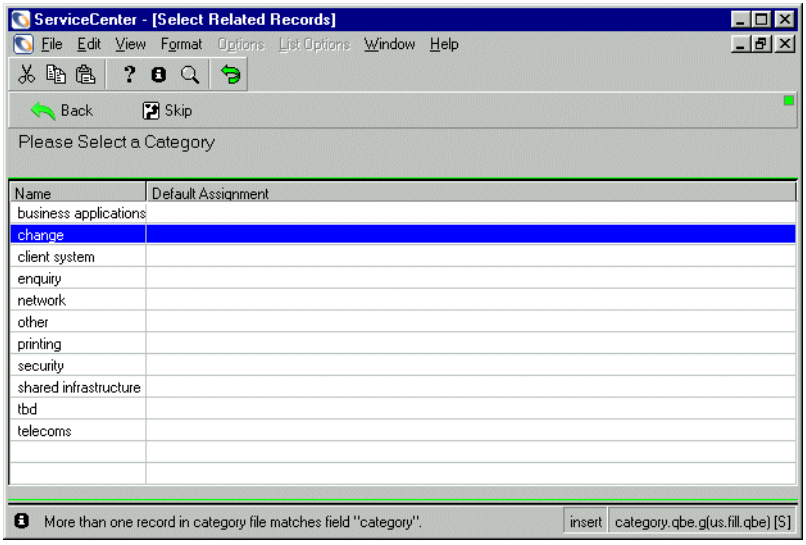


Figure 10-43: Selecting the Change category

8 Double-click the **Change** category to display a list of RFC - Advanced change categories (RFC Type 1).

A valid list of call subcategories displays (Figure 10-44 on page 487).

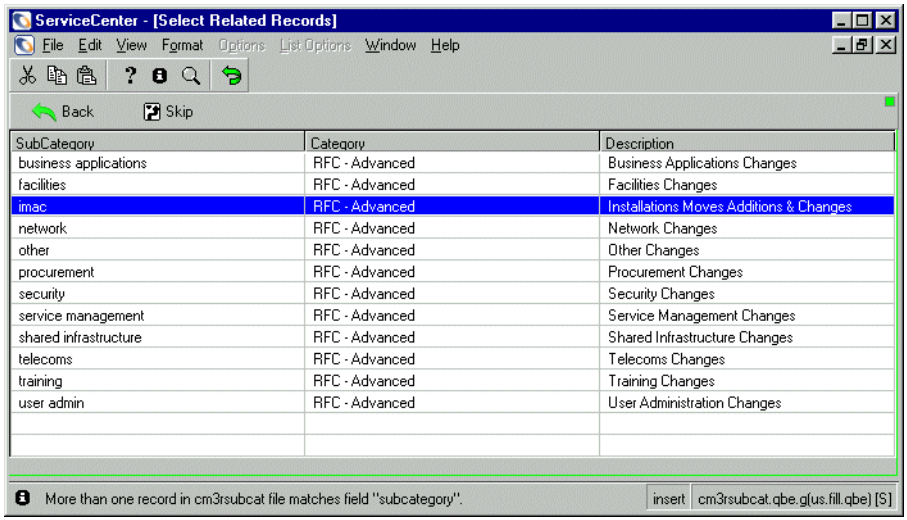


Figure 10-44: Change Categories form (RFC Type 1)

9 Double-click the required RFC - Advanced Subcategory.

For example, click **imac** (Installations: Moves Additions & Changes).

The *cm3sla.qbe* form displays (Figure 10-45).

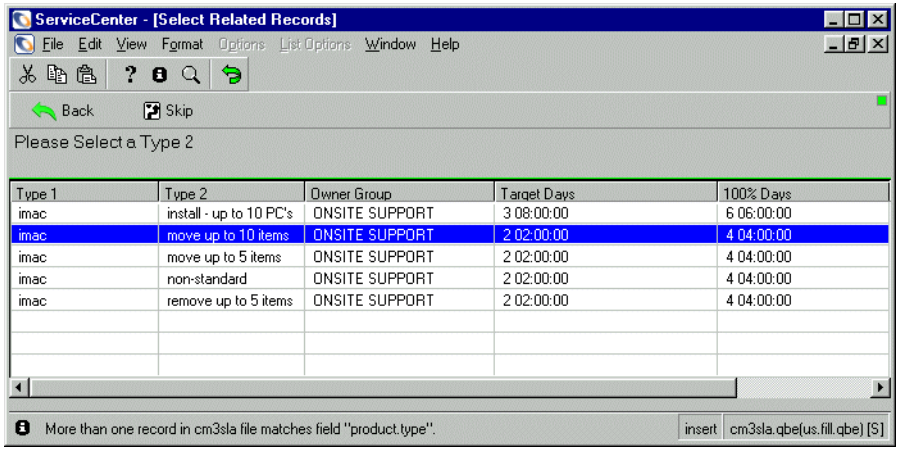


Figure 10-45: Selecting an RFC Product Type 2

10 Double-click the required Product Type (RFC Type 2) to request a product type.

For this example, click **move up to 10 items** (Figure 10-45 on page 487).

You return to the Call (*cc.incquick*) form (Figure 10-46 on page 488).

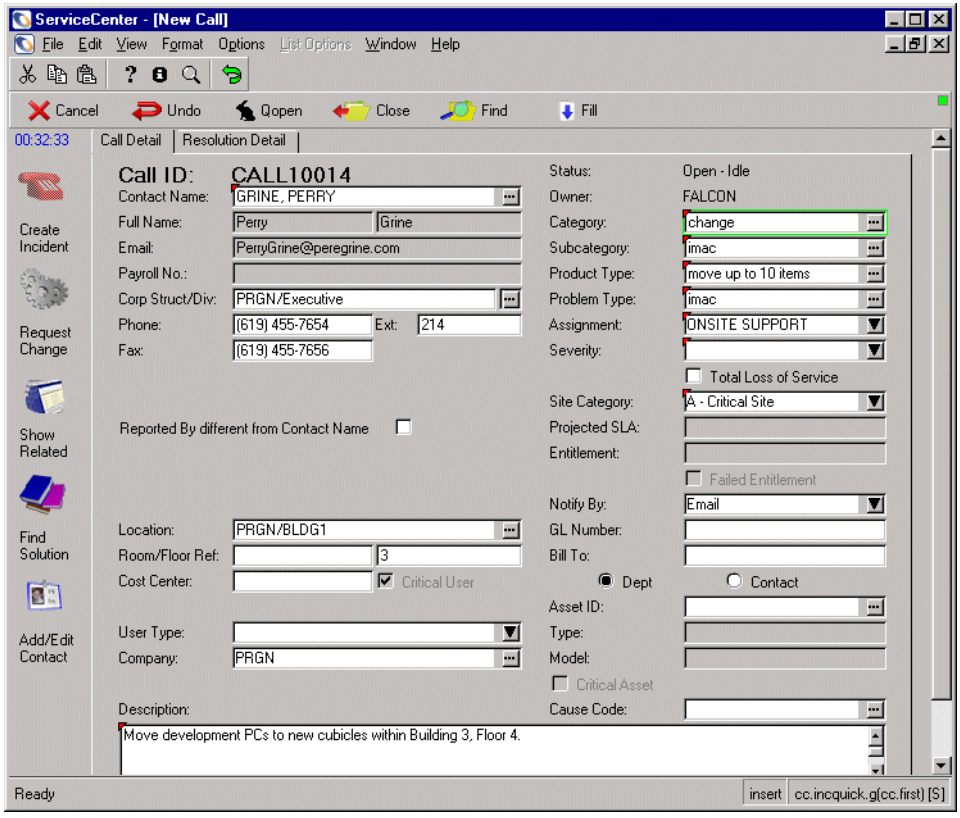


Figure 10-46: Adding Change Category and Product Type information

11 Select a severity level according to the urgency of this RFC.

- 1 - Critical
- 2 - Major
- 3 - Medium
- 4 - Low
- 5 - Very Low

For this example, select **2 - Major** severity level.

12 Select a site category from the drop down list in the **Site Category** field.

- A - Critical Site
- B - Major Site
- C - Satellite Site
- D - Home Site

For this example, select **A - Critical Site**.

At this stage, all the mandatory fields (red flagged fields) have been completed (Contact name, Category, Subcategory, Product Type, Problem Type, Assignment, Severity, and Site Category description).

You are now ready to create an RFC. See *Opening an RFC* below.

Opening an RFC

When you have completed the call details, you must create the RFC.

To open a new RFC-Advanced category change:

For this example, we remain logged in as an administrator.

1 If you are in the same call form, click **Request Change**.

-or-

From the Service Management menu:

a Click **Search SM Calls** to open an existing call ticket.

b Enter the call number into the **Call ID** field and click **Search**.

-or-

Click **Search** to perform a *true* query without entering any values in the blank call form. A record list with the requested call records displays. Make your selection by double-clicking on a call record.

c Select **Options>Related>Changes>Open** (see Figure 10-47 on page 490).

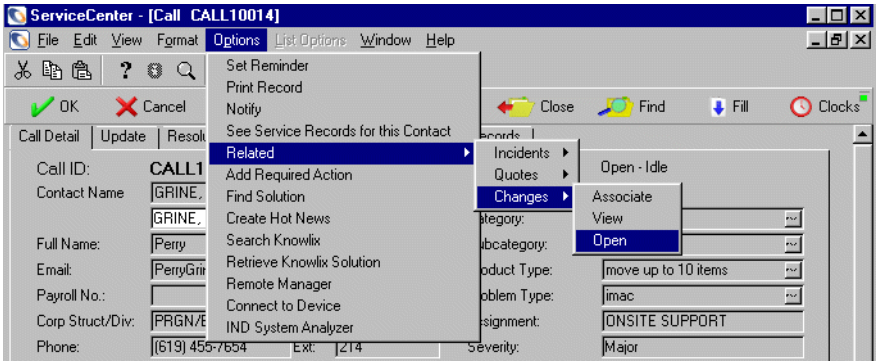


Figure 10-47: Relating a change to an existing call

A new Change ticket is opened (see Figure 10-48).

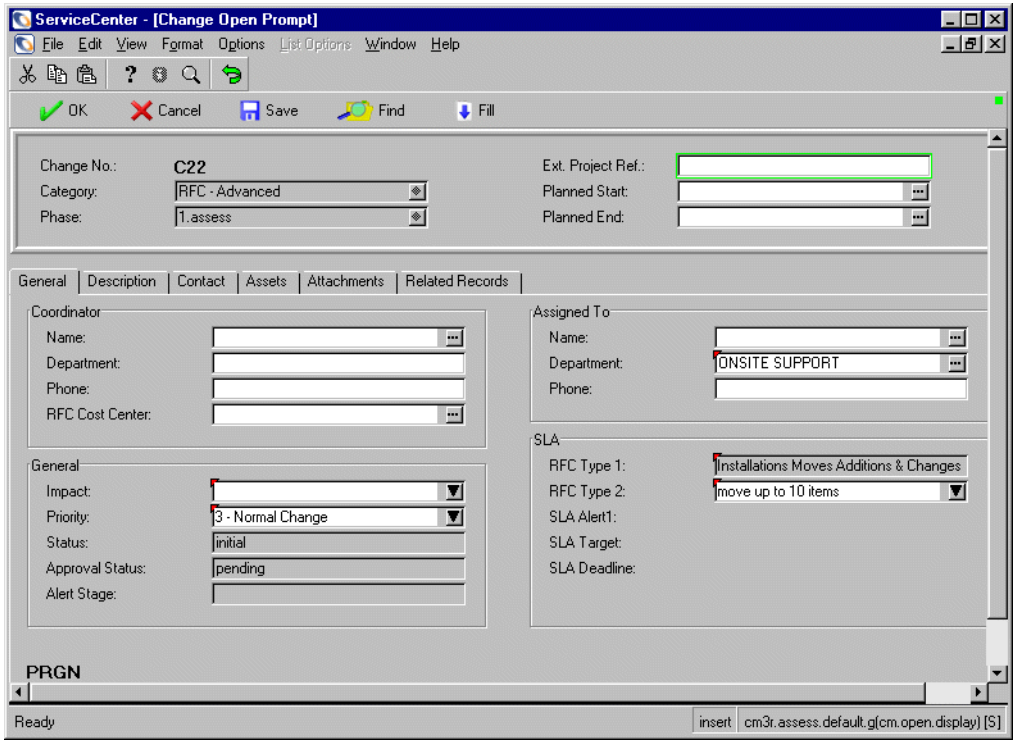


Figure 10-48: New RFC - Advanced category change opened in the 1. assess phase

- The Change Number displays at the top of the form.
- The **Phase** field has the current phase (**1.assess**) entered.
- The General tab in the *cm3r.assess.default.* form is currently selected.

Note: The active company displays at the bottom of the General tab. If this is incorrect, click **Back** to the first entry form and select an alternative company from the **Company** field.

- The Description tab has the description of the request as entered on the Calls Details form. You can add a title and update the description, if needed.
- The Assets tab is empty, unless you have selected a contact that has assets already assigned.

2 Enter details of the **Coordinator** in the **Coordinator** frame.

- Click **Browse** on the **Name** field to display the QBE list of **Coordinator** names.
- Ask the Change Initiator who, from the business unit, is the **Coordinator** and double-click the name to return to the RFC form with the coordinator's name entered.

3 Enter the Impact level of the RFC. Click the down arrow in the **Impact** field to display a list of Impact ratings. Select from the following:

- 1 - Major Business Change
- 2 - Business Change
- 3 - Minor Change

4 Enter the Priority of the RFC. Click the down arrow in the **Priority** field to display a list of Priority ratings. Select from the following:

- 1 - Emergency Change
- 2 - Expedited Change
- 3 - Normal Change

5 Click the Contact tab. The name of the Change Initiator (Contact) and the contact's details are displayed here (Figure 10-49 on page 492).

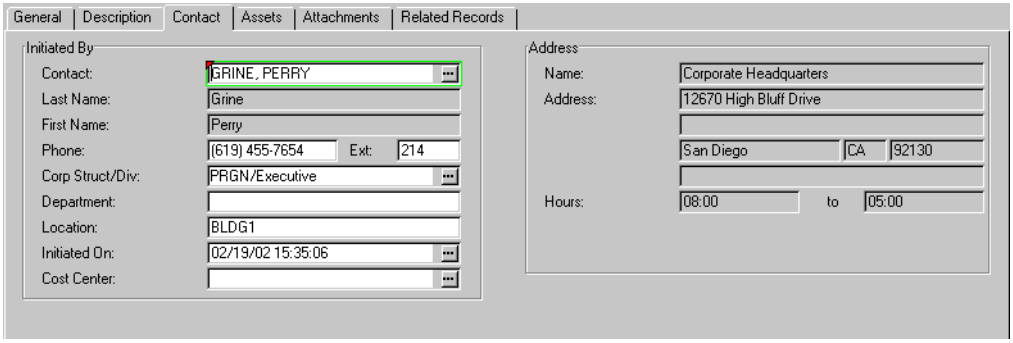


Figure 10-49: Contact tab

This completes opening an RFC.

6 Click **Save**. ServiceCenter saves the RFC-Advanced Change request.

The following message displays in the status bar: *Change C<##> Phase 1.assess Opened by <login name>*.

7 Click **OK**.

ServiceCenter displays a blank Call form, if you opened the Request for Change from the new call form.

If you opened the Request for Change from an existing call form, you are returned to the *cc.incident.quick* call form and the following message displays in the status bar: *SM Call <CALL#####> associated with CM Request <C##>*.

Note: The SLA clock starts running at this stage.

Click **Back** to close the successive application forms to return to the ServiceCenter home menu.

Assessment (Assess) Phase

The *Assessment* (*Assess*) phase consists of:

- Retrieving RFCs
- Flagging affected assets
- Creating an estimate for RFC impact

Change administrators retrieve details from an RFC-Advanced request and generate estimates or quotes. Change owners are responsible for providing quotes and estimates for Impact Category 1 and 2 RFCs. These may display in your Inbox list, but you do not need to take any action on them at this stage.

The *Assess* phase produces an estimate or quote for approval by the relevant change owners and change sponsor. At the end of the *Assess* phase, the RFC moves into the *Plan* phase (see *Plan Phase* on page 497 for more information).

Note: The SLA (Service Level Agreement) for providing an estimate, quote, or response to an RFC is five days.

Note: Certain categories of RFC, such as Training, System Admin, and Procurement, do not use the Plan and Build phases.

Flagging Affected Assets

Where possible, you should obtain details of affected assets from the change initiator and enter the details on the RFC.

To flag affected assets:

1. Click the Assets tab to display asset information.
2. Click **Browse** on the **Assets** field to display a list of assets.
3. Double-click the required **assets** for inclusion in the RFC.

   When you are finished with each asset, click **Save**. You are returned to the General tab.
4. Make any necessary notes and date any comments.
5. Repeat as many times as necessary for all assets to be flagged.
6. Click **Save** on the toolbar.

Creating an Estimate for RFC Impact Category 1, 2, and 3 RFCs

You learn how change administrators generate estimates or quotes for RFC Impact Category 1, 2, and 3 RFCs. Each category is affected by the approver in the Service Level Agreement (SLA).

Note: An RFC with a risk assessment of 3 (Major Impact) also requires approval by an IT director.

An RFC with a risk assessment other than 1 (Minor Impact) must be approved by a member of the Change Advisory Board (CAB).

Category Impact 3 RFCs also generate estimates or quotes by selecting a standard catalog price.

To enter an estimated price for Impact Categories 1, 2, and 3 RFCs:

1 Access the RFC with an Impact Category of 1, 2, or 3. See *Retrieving RFCs* on page 506 to learn more about retrieving RFCs.

The cm3r.assess.default form is opened (Figure 10-50).

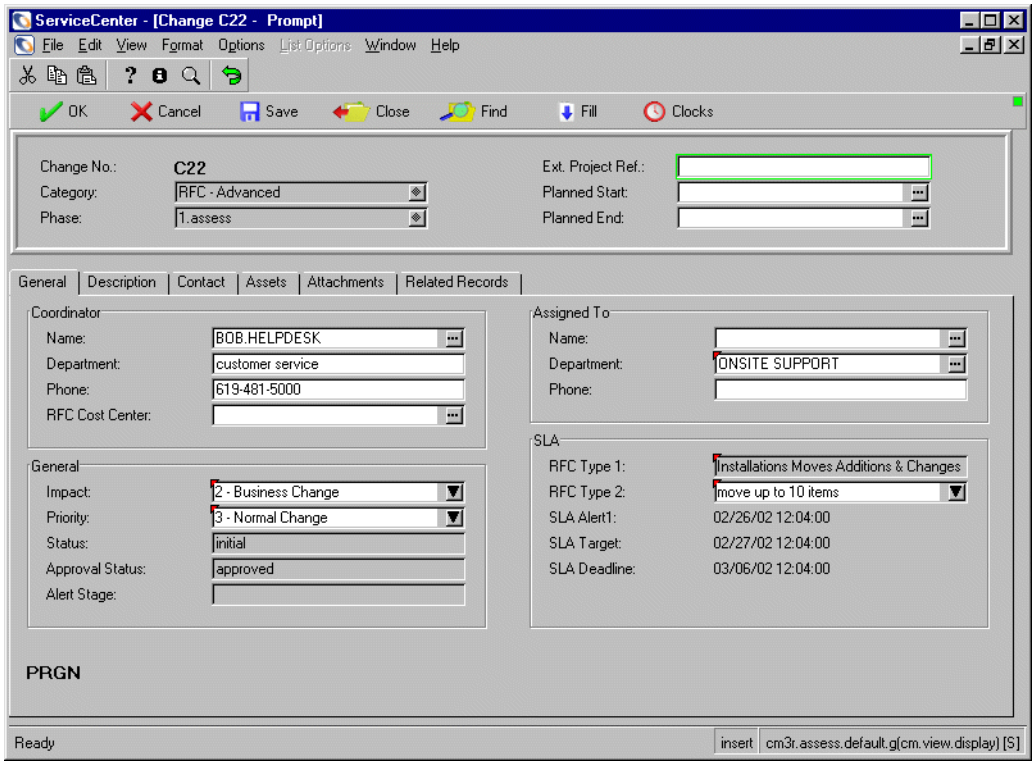


Figure 10-50: RFC - Advanced with Impact Category 2

2 Click **Save** on the toolbar if you have made any changes to the RFC.

3 Click **Close**.

If Impact Category 1 or 2, ServiceCenter displays the Estimate page (Figure 10-51 on page 496). If Impact Category 3, the standard price catalog form displays.

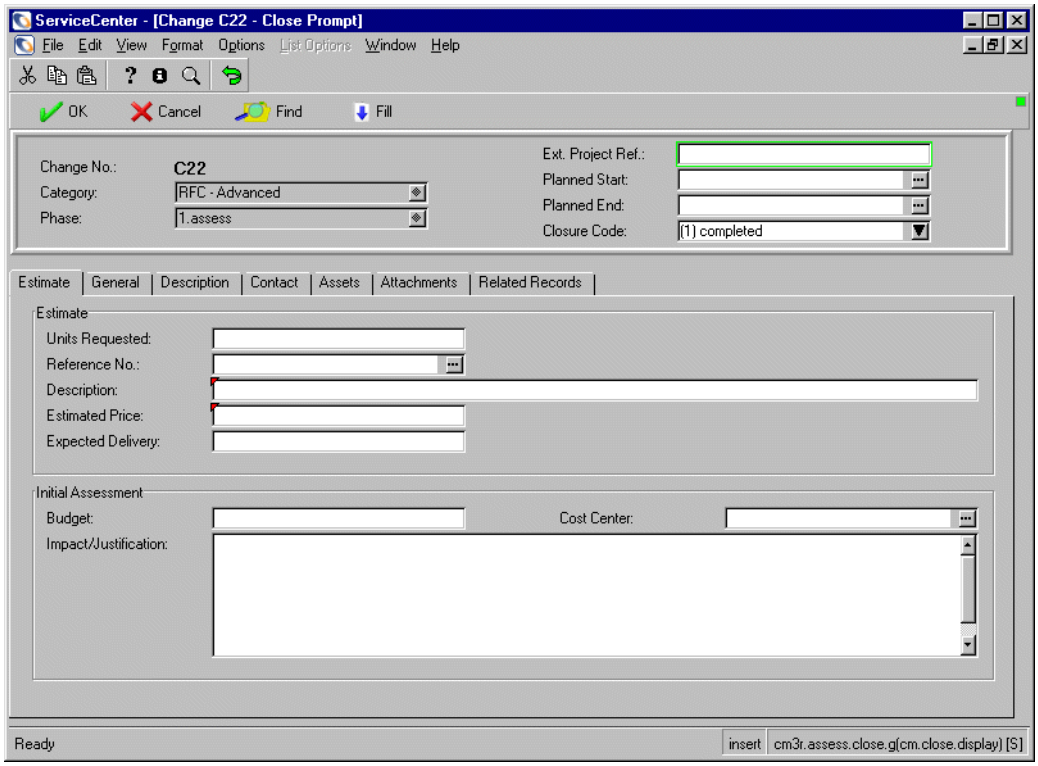


Figure 10-51: Estimate form (*cm3r.assess.close* form)

The **Description** and **Estimated Price** fields are red flagged, indicating that they are mandatory fields.

4 Complete the **Description** field with details of the change.

5 Enter the cost estimate for the change in the **Estimated Price** field.

6 Check that there is a value in the **Units Requested** field. If there is no value, enter the required value.

7 Complete the **Budget** and **Impact/Justification** fields.

8 Click **OK** to open the *Plan* phase and to return to the RFC queue form.

The following message displays in the status bar: *Task T<##> Phase plan 1/2 Opened by <login name>*.

The next time you enter into this RFC:

- If all mandatory fields have been completed, the form is refreshed and the **Phase** field column now shows that the RFC has changed to the *Plan* (2.plan) phase.
- If any mandatory fields for *Assess* phase closure have not been completed, ServiceCenter displays the appropriate page with the cursor in the required field. Enter the requested information and click **OK** to advance to the next phase. The **Phase** field now shows the RFC has changed to the *Plan* (2.plan) phase.

Plan Phase

The *Plan* phase involves Service Management, change owners, and change sponsors. It consists of:

- Approvals
- Producing a plan and quote
- Confirming or entering asset details
- Scheduling tasks

Service Management Team and Change Owners

Depending upon the type of RFC, ServiceCenter generates approval requirements from specified personnel at the beginning of each RFC phase.

On completion of the *Assess* phase (see *Assessment (Assess) Phase* on page 493 for more details), approvals for the start of the *Plan* phase may be required from one or more of the job roles/groups listed below, specified in the SLA (*cm3sla)* record.

- Service Management team
- Change Owners
- Change Sponsors

ServiceCenter lists all the approvals that are outstanding for each phase on the Approvals page of the RFC.

All current pending approvals required for the start of the *Plan* phase must be entered in ServiceCenter before the RFC can progress into the detailed planning stage.

Note: Service Managers are required to give business approval for the change. Change Owners are required to give technical approval for the *Plan* phase to proceed.

After the RFC is approved by all nominated approval groups, the change must be submitted to the Change Sponsor to provide authorization.

Note: The SLA is still running -- the clock is still ticking, so the amount of time spent on servicing the customer is being tracked.

Change Sponsors

Once the cost of an RFC has been estimated, all required approvals for the *Assess* phase (as listed on the Approvals form) must be implemented before the change progresses to the detailed planning stage.

The previous section, *Service Management Team and Change Owners* on page 497, described how Change Owners and the Service Manager provide technical and business approval at the onset of the *Plan* phase. The Change Sponsor must now provide customer business approval for the RFC and approve the estimate.

Note: *The SLA clock is suspended*, awaiting Change Sponsor approval. As soon as approval is granted, the SLA clock starts running again.

Change Sponsors are required to authorize the change from the customer business perspective. If a Change Sponsor does not have access to ServiceCenter, Change Administrators (CAs) are responsible for ensuring that authorization is obtained from the Change Sponsor. When authorization is obtained (for example, from email), CAs must approve the RFC, on behalf of the Change Sponsor, on the ServiceCenter system.

Approving/Denying RFCs

Approvals for multiple phases are based upon the Change SLA record that has been selected, which is determined by the subcategory type (RFC Type 1 or RFC Type 2) chosen for the change. Once the SLA record is selected, ServiceCenter determines how approvals behave and which approvals are needed for each phase. So there can be approvals for multiple phases, depending upon the values of the subcategory involved (RFC Type 1 or RFC Type 2).

ServiceCenter generates approval requirements from specified personnel at the beginning of each RFC phase. At the start of the *Implement* phase, approvals for RFC Impact Categories 1 and 2 may be required from one or more of the Change Management personnel.

- Service Managers are required to give business approval for the *Implement* phase.
- Other groups are required to give technical approval for the *Implement* phase.

Once an RFC has been opened, it must be approved before it can move on to the *Build* phase.

Important: When an RFC requires more than one approval, the approvals must be done in the order listed in the Sequence columns, with number 1 first, and so on.

Note: The Approval Process Comments area at the bottom of the form is reserved for denied and retracted items. There are a number of indicators as to the current status:

- The **Phase** field is in the *Plan* Phase, if there are approvals outstanding.
- The **Action** field displays *approved* as the current status.

Click **Back** to return to the QBE list of records -- Changes awaiting approval.

When you have completed approvals, click **Back** to exit through the successive application forms until you return to the ServiceCenter home menu.

Retrieving RFCs for Approval

To retrieve RFCs for approval:

Display RFCs assigned to your area of responsibility.

1 Log on as Service Manager, Change Owner, Change Sponsor, or Change Administrator.

2 From the change sponsor's home menu, click **Approve RFCs**.

-or-

a Log on with your own login id and password to display the Entry form.

b Click **Change Queue**.

ServiceCenter displays a QBE list of RFCs by urgency (default view). See Figure 10-52.

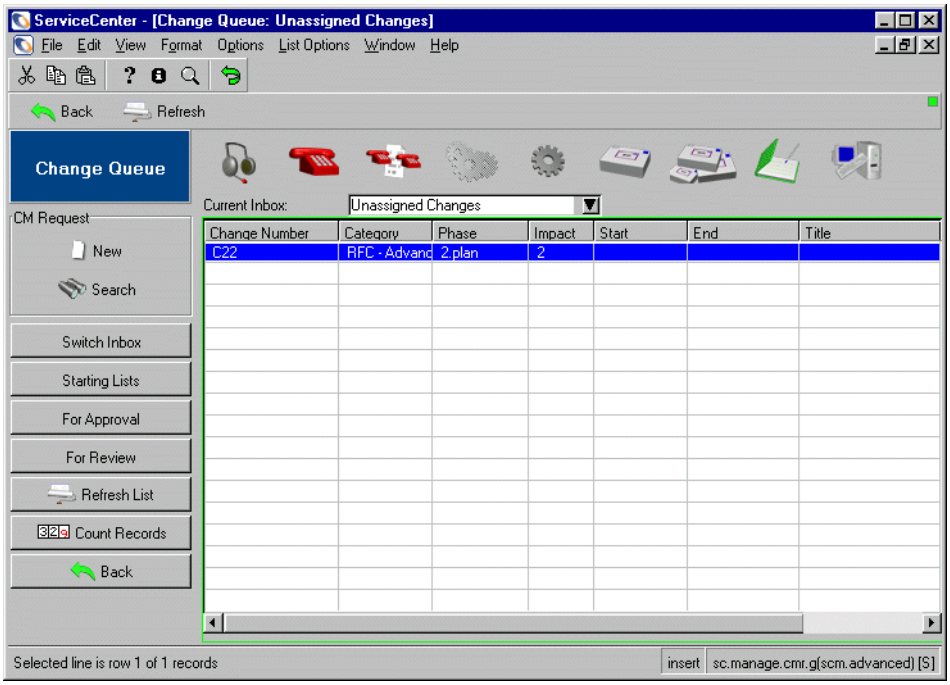


Figure 10-52: Inbox form (*sc.manage.cmr* form)

For Approval

3 Click **For Approval** on the Inbox form (Figure 10-52).

ServiceCenter displays the Change Approval Group Selection dialog box.

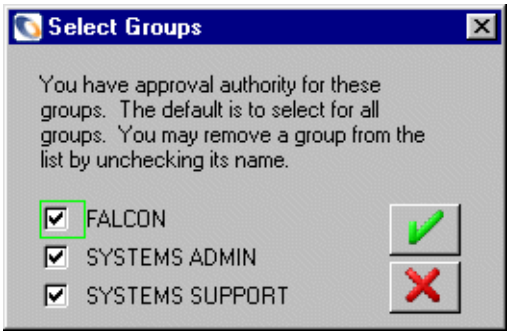


Figure 10-53: Approval dialog box

4 Click the appropriate box, or leave all checked to default to all groups.

If you click **OK**, you are returned to the Unassigned Changes inbox of the Change Sponsor's queue.

5 Click **Switch Inbox** and select **RFCs by urgency** from the drop-down list in the dialog box.

A QBE list of RFCs by urgency are displayed (see Figure 10-52 on page 500).

6 At this stage, you need to approve RFCs in the *Plan* phase.

Note: You can sort RFCs by phase by clicking on the Phase column header.

7 Double-click the RFC you wish to approve, or click **Search** and enter the number of a specific RFC that you wish to approve.

The Approvals tab displays the pending approvals needed (Figure 10-54 on page 502).

For this example, the following approvals are pending:

- *Change Sponsor Approval* from the Change Coordinator, BOB.HELPDESK
- *Onsite Support Approval* from ONSITE SUPPORT
- *Service Management Approval* from SERVICE MANAGEMENT

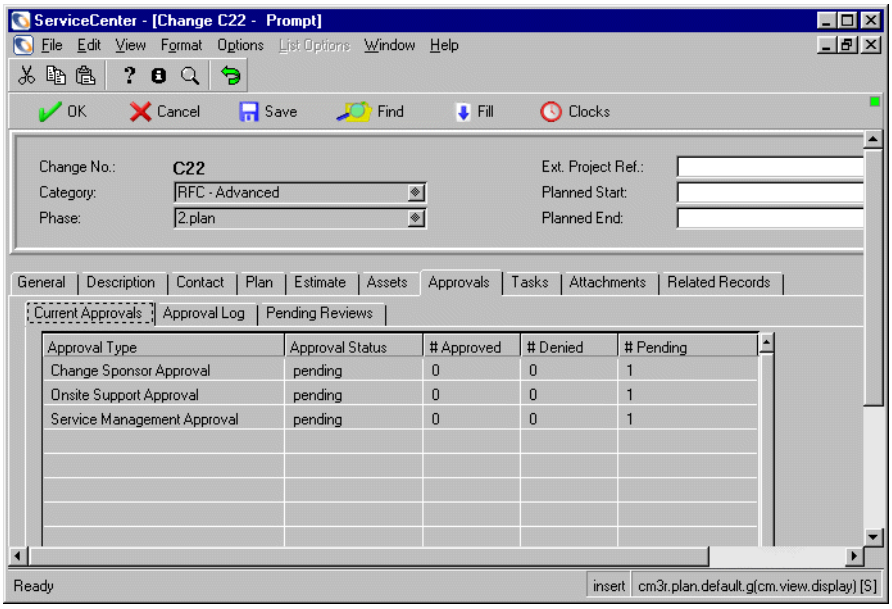


Figure 10-54: Current pending approvals in the *cm3r.plan.default* form

8 Continue with *Approving RFCs* on page 502 to approve or deny an RFC.

Approving RFCs

As an approver, you have to select and open the RFCs awaiting your approval. When there are multiple approvals needed, these must be done sequentially. For example, if approvals are needed from *BOB.HELPDESK*, *ONSITE SUPPORT*, and *SERVICE MANAGEMENT*, the approvals must be approved in that order.

1 Select and open an RFC for approval.

For information on retrieving RFCs, see *Retrieving RFCs for Approval* on page 500.

The pending approvals are listed in the Approvals tab.

For this example, the following approvals are pending (see Figure 10-54 on page 502):

- *Change Sponsor Approval* from the Change Coordinator, *BOB.HELPDESK*
- *Onsite Support Approval* from *ONSITE SUPPORT*
- *Service Management Approval* from *SERVICE MANAGEMENT*

2 Each approver (*BOB.HELPDESK*, *ONSITE SUPPORT*, and *SERVICE MANAGEMENT*) selects and opens the necessary RFCs awaiting their review and approval.

- *BOB.HELPDESK*:
  - Logs on and clicks **View Work Queues**.
  - Selects **All Open RFCs** from the drop-down list in the **Current Inbox** field.
  - Clicks **For Approval**.
  - Clicks **OK**.
  - Sorts the RFCs by phase and reviews each RFC awaiting approval, or searches for a particular RFC awaiting approval.
  - Double-clicks the RFC awaiting approval.
  - Clicks **Options**>**Approval**>**Approve**.

  The RFC has been approved and the following message displays in the status bar: *Change C<##> Phase 2.plan Approved by HELPDESK.BOB.*
- *ONSITE SUPPORT 1*:
  - Logs on and clicks **View Work Queues**.
  - Selects **All Open RFCs** from the drop-down list in the **Current Inbox** field.
  - Clicks **For Approval**.
  - Clicks **OK**.
  - Sorts the RFCs by phase and reviews each RFC awaiting approval, or searches for a particular RFC awaiting approval.
  - Double-clicks the RFC awaiting approval.
  - Clicks **Options**>**Approval**>**Approve**.

  The RFC has been approved and the following message displays in the status bar: *Change C<##> Phase 2.plan Approved by CM ONSITE SUPPORT SDU 1.*

- *SM 1*:
  - Logs on and clicks Change Mgt tab.
  - Clicks **Change Queue**.

    RFCs by urgency are listed by default.
  - Clicks **For Approval**.
  - Clicks **OK**.
  - Sorts the RFCs by phase and reviews each RFC awaiting approval, or searches for a particular RFC awaiting approval.
  - Double-clicks the RFC awaiting approval.
  - Clicks **Options**>**Approval**>**Approve**.

  The RFC has gone through the approval process and received all the necessary approvals.

  The following message displays in the status bar: *The Approval Status has been set to approved. No other groups are pending approval.*

Denying an RFC

Important: Do not use this option unless directed to do so by Service Control.

1 Click **Options**>**Approval**>**Deny** in the menu bar.

ServiceCenter displays a Denial Reason comments box where you must enter the reason for the denial.

2 Enter the mandatory reason for the denial.

3 Click **OK** to return to the Approvals Requirements.

Comments are displayed in the Approval Process Comments area at the bottom of the form, and the current denial is now displayed in the Approved Groups frame on the form, showing *Action:denied ()*.

The Change Sponsor has moved from the **Current Pending** field to the **Approved Groups** field.

There are a number of indicators as to the current status:

- The **Phase** field has changed to *Accept* phase. Only the Change Manager or a Change Administrator can reverse a deny flag and change this to an approved status.
- The **Action** field displays *denied* as the current status.

4 Click **Back** to return to the Changes awaiting approval form.

5 If you wish to deny other RFCs, repeat these steps.

6 When you are finished, click **Back** to exit the successive application forms to return to the ServiceCenter home menu.

Important: If you re-open a denied change from the Change Sponsor box, it displays a red exclamation point to the right of the **Approval Status** field. Only the Change Manager or a Change Administrator has the authority to alter the denied RFC status.

Producing a Plan and Quote

This section describes how Change Owners progress Impact Category 1 and 2 RFCs through the *Plan* phase, following approval of the RFC by the Change Sponsor.

Once approvals are obtained, the Change Owner must produce plans to implement the RFC. The level of planning varies with the Impact Category of the RFC. For Impact Category 1 and 2 RFCs, the Change Owner must produce a detailed plan for approval by the relevant Change Owners and the Change Sponsor (CS). Where an estimate was produced at the *Assess* phase, the Change Owner must now produce a quote for the relevant Change Owners and the CS.

Note: *The activities at this stage are paper-based.*

For Impact Category 3 RFCs, Change Owners must check the estimate and schedule the work with the Change Initiator. These activities are described in the *Plan Phase - Schedule and Close Category Impact 1, 2, and 3 RFCs* on page 508.

Note: The SLA is still running.

Retrieving RFCs

To display RFCs assigned to your area of responsibility:

1 Log on as a Change Owner to display the Entry form.

2 Click **Incident Queue**, **Call Queue**, or **Change Queue**. When you click **Call Queue**, ServiceCenter displays the Calls Inbox form.

3 Click **Switch Inbox** to select a view of calls assigned to the Change Owner.

The Change Request Inbox dialog box displays.

4 In the QBE list box, select **RFCs for SDU action** and click **OK**.

ServiceCenter displays a QBE list of RFCs assigned to the Change Owner for action.

Note: All RFCs requiring Change Owner input to the planning stage are in the *Plan* phase.

5 Click on the Phase column header to sort RFCs by phase. (This makes it easier to find the RFCs that require planning actions.) Locate the RFC you require from the QBE list.

- If you cannot locate the RFC, click **Search** and enter the RFC number in the Search dialog box. If you do not know the number, you can use any of the other fields as search criteria.

Click **Search** to display the search results.

6 Highlight the RFC to progress from the list and double-click to display the form for that particular RFC.

Producing a Plan and Quote for Impact Category 1 and 2 RFCs

You must gather additional information to generate a detailed implementation plan and quote for Impact Category 1 and 2 RFCs at the *Plan* phase.

For Impact Category 1 and 2 RFCs, you must produce a detailed plan for approval by the relevant Change Owners and the CS (Change Sponsor). This phase ensures that this planning is completed to the satisfaction of the Change Manager, prior to building and implementing the change.

Where an estimate was produced at the *Assess* phase, you must now produce a quote for the relevant s and the CS.

Confirming or Entering Asset Details

For RFCs involving less than 10 assets, asset details should be entered at the *Assess* phase. These details need to be confirmed at the *Plan* phase, and input on the Asset page of the RFC. Also update the Description with the details of any documents produced and input the intended next action.

For RFCs without flagged assets from the *Assess* phase, you must obtain details from the Change Initiator and enter these in the system.

To enter asset details:

1. Click the Asset tab to select the Asset page.
2. Click **Browse** on the **Assets** field to display a list of assets.
3. Double-click the required assets for inclusion in the RFC.

   ServiceCenter returns you to the Assets page with the asset details entered.
4. Initial and date any comments in your written plan.
5. Repeat this for as many times as necessary for all assets to be flagged.

   Note: Each time you add an asset, ServiceCenter returns you to the General page of the RFC. You need to click the Asset tab to continue entering asset details.
6. Click **Save** on the toolbar.

Producing a Quote

All RFCs must have a quote for the cost of the change by the end of the *Plan* phase. At the *Assess* phase, the cost may have been estimated for Impact Category 1 and 2 RFCs. You must now produce a quote. Be sure to complete the **Description**, **Estimated Price**, **Budget**, **Impact**, and **Justification** fields.

Producing the Plan

You must now update the description to show what documents have been produced.

To update the description:

1. Click the Description tab to select the Description page and enter any additional information.
2. Enter the details of the plan and quote documents in the **Update Description** field.
3. Click **Save**.

Plan Phase - Schedule and Close Category Impact 1, 2, and 3 RFCs

This section describes how Change Owners progress Impact Category 1, 2, and 3 RFCs through the *Plan* phase, following approval of the RFC by the Change Sponsor.

Once these approvals are obtained, the Change Owner must check the quote or estimate for Impact Category 3 RFCs and schedule the work with the Change Initiator.

Note: The SLA clock is still running.

You must schedule Impact Category 3 RFCs for approval by the Change Owner that implements the change. The Change Owner must produce predefined plans, regression rules, and acceptance criteria for Impact Category 3 RFCs.

To schedule RFCs for approval:

1. Retrieve the RFCs for action (see *Retrieving RFCs* on page 506).
2. Update the **Description** field with any relevant information.
3. Complete the **Planned start** and **Planned end** fields with dates and times in the format dd/mm/yy hh:mm.

   Note: If you try to exit the phase without completing these fields, the RFC form is redisplayed with the fields flagged in red, indicating that the dates are mandatory.

4. Click **Save** or **OK**.
5. Click **Close**.

   ServiceCenter displays the Plan page with the **Phase** field, showing that the RFC has now entered the next phase. The plan should be completed during the *Build* phase.

Plan Phase - Approve and Close Category Impact 1 and 2 RFCs

This section describes how Change Managers approve the tasks generated by the system for Impact Category 1 and 2 RFCs. Before approving the RFC in Change Management, the Change Manager must approve the paper plans and any associated documentation, and agree with the quote for the RFC. Following approval of the plan, the Change Manager must close the *Plan* phase for Impact Category1 and 2 RFCs.

Approvals for tasks are automatically created. When a task is ready to be closed, close the task to close the *Plan* phase.

Note: The SLA clock is running.

Build Phase

The *Build* phase involves the Service Management and Change Sponsor. The *Build* phase consists of:

- Approvals
- Allocating tasks
- Managing outside tasks

Build Phase Approvals

The *Build* phase completes activities that can be carried out without affecting the live environment. For example, the procurement and building of hardware or the development of applications. The *Build* phase should also include the identification of tasks required in ServiceCenter for the *Implement* phase.

This section describes how:

- Change Managers approve and close the *Plan* phase for Impact Category 1 and 2 RFCs.
- Change Owners schedule and close Impact Category 3 RFCs.
- Service Managers provide the relevant approvals for the *Build* phase.
- Change Sponsors give approval for the plan and quote at the beginning of the *Build* phase.

Service Manager Approvals

Service Managers provide the relevant approvals for the *Build* phase.

Once these approvals are granted, the Change Owner is responsible for completing the *Build* phase activities.

Note: The SLA clock is running.

Change Sponsor Approvals

Change Sponsors give approval for the plan and quote at the beginning of the *Build* phase. It is relevant to Change Sponsors and Service Control.

Service Managers provide the relevant approvals for the *Build* phase from the Change Owner's viewpoint. Change Owners must approve the detailed plans and the quote for Impact Category 1 and 2 RFCs, or the quote and scheduling for Impact Category 3 RFCs. Once these approvals are granted, the Change Sponsor must give permission for the change to proceed to the *Build* phase.

If a quote was issued and approved by the Change Sponsor at the beginning of the *Plan* phase (see *Plan Phase* on page 497), Service Control provides the approval at this stage without further reference to the Change Sponsor. If a Change Sponsor does not have access to ServiceCenter, Service Control seeks the appropriate authorization and enter the details into ServiceCenter.

The *Build* phase should include the identification of tasks required in the ServiceCenter system for the *Implement* phase.

Note: The SLA clock is *not* running.

Build Phase - Approving RFCs

To approve RFCs assigned to your area of responsibility, retrieve and review the necessary RFCs awaiting approval.

For information on retrieving and approving RFCs, refer to the following topics of discussion: *Retrieve RFCs for Approval* on page 519, *Approvals* on page 414, *What are Approvals?* on page 446, *Approving a Change or Task Phase* on page 446, and *Approving/Denying RFCs* on page 499.

When you have approved an RFC, the Approvals tab now displays either the Service Manager (SM) or Change Sponsor (CS) approval entry in the **Approved Groups** field. Pending future approvals have been moved to the **Current Pending** field.

There are a number of indicators as to the current status:

- The **Phase** field is still in the *Build* phase, because there are outstanding approvals.
- The **Action** field displays *approved* as the current status.

Click **Back** to return to the Changes Pending Approval form.

If you wish to approve other RFCs, click <<**Prev or Next**>> to display the previous or next RFC in sequence.

When you reach the beginning or end of the Changes awaiting your approval, ServiceCenter redisplays the current form.

Build Phase - Denying an RFC

Important: Do not deny an RFC without receiving direction from Service Control.

Follow the steps outlined in *Denying an RFC* on page 504.

Build Phase - Change Owners Define and Close Tasks

This section describes how Change Owners raise and manage tasks required for the *Build* phase.

Note: The SLA clock is *not* running.

Approving RFCs

To approve RFCs assigned to your area of responsibility, retrieve and review the necessary RFCs awaiting approval.

For information on retrieving and approving RFCs, refer to the following topics of discussion: *Retrieve RFCs for Approval* on page 519, *Approvals* on page 414, *What are Approvals?* on page 446, *Approving a Change or Task Phase* on page 446, and *Approving/Denying RFCs* on page 499.

When you have approved an RFC, ServiceCenter adds the Plan page for the selected RFC. This is where you enter your backup plan.

Producing a Backup Plan

All changes must have a regression plan (backup plan) -- a plan that enables you to back out of a change -- should the implementation fail in the live environment. A small change may have a simple backup plan. However, if the plan is complex, produce the plan as a separate document.

Begin to enter your backup plan by filling in the Plan page.

1. Enter the details of the plan in the Plan page. If the plan is a separate document, enter the document reference number in the **Plan** field.
2. Click **Update** to save details of the plan.
3. Copy the **Plan** text and paste it into the **Update Description** field.

   When you're finished entering the plan information in the Plan page, you have a backup plan. Be sure to update your plan, as details change.

Managing the Build and Testing External Activities

The Change Owner outside the system manages the activities required to build and test the RFC. The Change Owner should monitor all Build and Test activities. Go to the Description tab and record significant events in the **Description** field. You find the **Description** field helpful as a log of information on the significant events that occur while you manage the activities required to build and test the RFC.

1. Open the RFCs for Change Owner action.

   For information on retrieving RFCs, refer to *Retrieve RFCs for Approval* on page 519.
2. Select **RFCs for SDU action** and click **OK**.

   ServiceCenter displays a QBE list of RFCs assigned to the Change Owner for action.
3. Open the next RFC with phase of **3.build**. ServiceCenter displays the RFC form.
4. Click **OK** to save your entry and exit the RFC.

Build Phase - Closure

If all approval requirements have been met, then closure of the *Build* phase can occur. This section describes how Change Owners approve and close the Build phase.

Note: The SLA clock is running.

Retrieving RFCs for Closure

To display RFCs assigned to the Change Owner:

1. Logged on as a Change Owner, retrieve the **RFCs by urgency**.

   For information on retrieving RFCs, refer to *Retrieving RFCs* on page 506 and *Retrieve RFCs for Approval* on page 519.
2. Click **RFC:Change List**. ServiceCenter displays a QBE list of RFCs by urgency (default view).
3. Click **Search** to display the Display which changes? form.
4. In the **Number** field, enter the RFC number and click **Search**.
5. Click the Description tab and check the content of the **Description** field to determine if the RFC needs to have the *Build* phase closed.

Checking RFC Details

Before closing the *Build* phase of the RFC, check that all the activities have been completed and all required information is available for the *Implement* phase.

To check the RFC details:

1. Check the details of the plan in the **Plan** field. Update the plan, if necessary. If you make any changes, click **Update** to save the new details.
2. Click the Description tab and enter details of any documents that are used during the Implement phase in the **Update Description** field. Click **Save** to save the new details.
3. Check the details on the other pages of the RFC and add or update the information, as required. Remember to click **Save** after any additions or updates.
4. For phases two through five (*Plan* phase, *Build* phase, *Implement* phase, and *Accept* phase), click the Tasks tab on the RFC form to display the Task List or a specific Task form.

5 See if any tasks are open. If any tasks remain open, close them.

6 Check that all activities in the detailed plan for the *Build* phase are complete.

Closing the Build Phase

When you are satisfied that all *Build* phase activities have been completed, close the *Build* phase.

1 Click **Save** then **Close**.

The RFC form shows the General page as well as the **Closure Code** field.

2 From the drop down list, select the appropriate closure code.

- (1) completed
- (2) failed
- (3) rejected - financial
- (4) rejected - technical
- (5) rejected - security
- (6) withdrawn

3 Click **Save** to save and exit. ServiceCenter redisplays the RFC form. The **Phase** field displays the new phase **4.implement** and the status bar displays a message confirming closure of the *Build* phase.

4 Click **Cancel** and **OK** again. ServiceCenter returns to the Display Which Changes form.

5 Click **Refresh** to update the phase of the RFC in the QBE list.

6 Click **Back** to exit the successive application forms and return to the home menu.

Implement Phase

This section describes how the required approvals are given to start the Implement phase.

The Implement phase consists of:

- Defining, viewing, and closing tasks
- Managing outside implementation tasks
- Approvals

Implement Phase - Raise Tasks

The previous section described the approval process for the *Implement* phase. Once all required approvals are in place, Change Owners must action the implementation of the change.

The *Implement* phase completes the activities that are required to implement the change in the live environment, such as the installation, testing, and hand-over of hardware and applications. The *Implement* phase may include some or all of the following activities.

- Create and allocate task records in ServiceCenter.
- Complete all activities required to alter the live environment.
- Alter live systems according to the plan.

This section describes how Change Owners raise tasks for the *Implement* phase.

Defining Tasks for an RFC

To open tasks for the RFC:

1. Log on and display the entry form. See *Retrieving RFCs* on page 506 for detailed steps on retrieving RFCs.
2. Click **Options>Open New Task** in the menu bar to display the list of valid categories.
3. Double-click the appropriate category for the current change (for example, *implement.task*).

   ServiceCenter displays the Task form.
4. Make any necessary changes to dates and times in the **Planned Start** and **Planned End** fields (originally populated from the RFC) for this particular task.
5. Click **Browse** in the **Name** field in the *Assignment to* frame to display the Related Record list.

   Double-click the appropriate entry to assign the task to a Task Owner. ServiceCenter redisplays the Task form with the task owner and/or the department entered in the appropriate fields.
6. Enter a description of the task by clicking the Description tab and typing a description of the task in the **Update Description** field.

7 Enter an estimate for the task by clicking the Estimate tab.

   a Enter the number of units required in the **Units Required** field.

   b Enter the anticipated number of man hours for the task in the **Estimated Effort** field.

   c Enter the level of staff required for the task in the **Grade of Staff** field.

8 If needed, complete the required details (such as, inventory, work notes, and backout method) on the other pages of the Task form and click Update to enter the details into the task record.

9 When you have finished entering task details, click **OK** to return to the RFC form.

10 If needed, click the **Options** pull-down menu and click **Options** -> **Open New Task** to display the list of valid categories again to raise another task. Repeat the steps above for the second and subsequent tasks.

Closing Tasks

When assigned tasks have been completed, they need to be closed for the RFC before the *Implement* phase can be closed. See *Closing Tasks* on page 445 for information on closing tasks.

Manage Implementation External Tasks

During the *Implement* phase, various activities need to be completed. Details of the activities and their progress should be recorded in the RFC. Do this by making sure you enter updated information in the RFC form, **Update Description** field, Description tab.

Implement Phase - Closure

The previous section described how Change Owners raise and close tasks in the Implement phase.

This section describes how Change Owners close the *Implement* phase when changes to the live environment are completed and tested, and all related tasks have been closed.

Retrieving RFCs

To display RFCs assigned to Service Control for the *Implement* phase closure:

See *Retrieving RFCs for Closure* on page 513 for details steps on retrieving RFCs for closure.

Note: If you are on step 4 in the **Number** field and do not know the RFC number, use the Switch Inbox to switch RFCs assigned to Change Owner and sort on the phase and open the next RFC that has phase **4.implement**. ServiceCenter displays a list of RFCs by urgency (default view).

Checking RFC Details

Before closing the *Implement* phase of the RFC, check that all the activities have been completed and all tasks are closed.

To check the RFC details:

1. Check that the implementation of the RFC is complete.
2. Check whether or not the implementation has been successful.
3. Click the Tasks tab on the RFC form to display the Task List or a specific Task form.
4. Check that all tasks are closed.
5. If any tasks are open, close them, as detailed in *Closing Tasks* on page 445.
6. Enter information on your actions in the **Update Description** field of the Description tab.

Closing the Implement Phase

When you are satisfied that all *Implement* phase activities have been completed, close the *Implement* phase.

1 Click **Save** then **Close**.

The RFC form displays with the Financials page as the current page (Figure 10-55 on page 518).

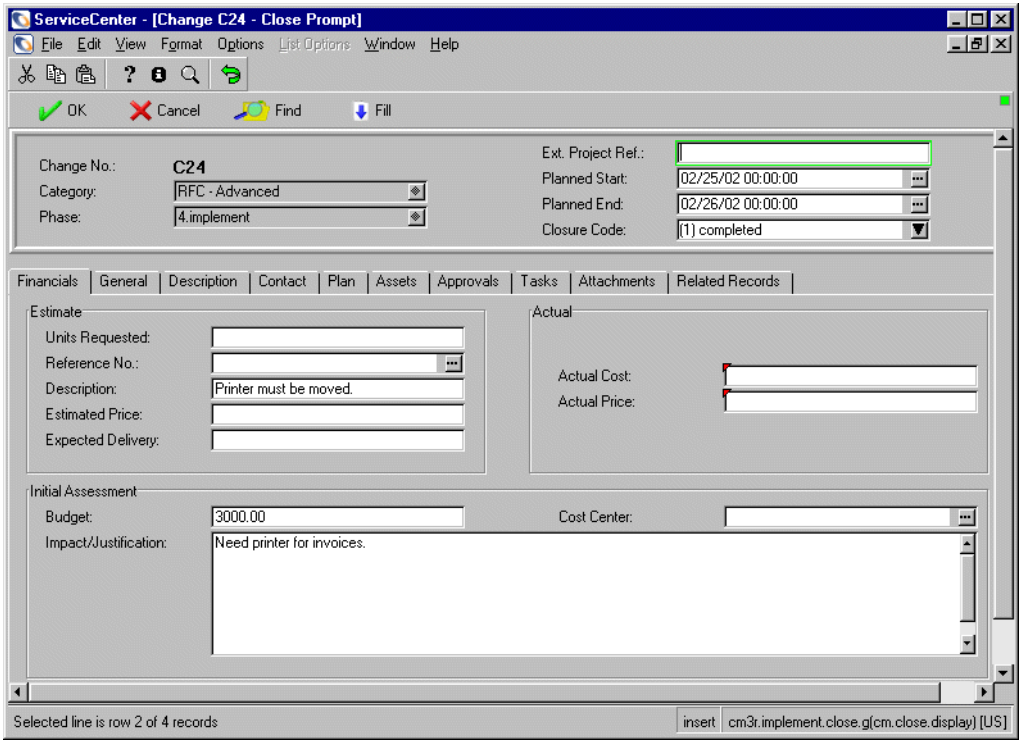


Figure 10-55: RFC form—Financials tab

2 From the drop down list, select the appropriate closure code.

- (1) completed
- (2) failed
- (3) rejected - financial
- (4) rejected - technical
- (5) rejected - security
- (6) withdrawn

3 Enter the amounts in the **Actual Cost** and **Actual Price** fields to reflect the actual cost of the task versus the actual quoted price upon closure of the task.

4 Click **Save** to save and exit. ServiceCenter redisplays the RFC form. The **Phase** field displays the new phase **5. accept** and the status bar displays a message confirming closure of the *Implement* phase.

5 Click **Save** or **OK**.

6 Click **Back** (or **Cancel** to make no changes) to exit the successive application forms and return to the home menu.

Accept Phase

The *Accept* phase consists of:

- Updating the asset database
- Closing the RFC record in ServiceCenter

Retrieve RFCs for Approval

To display RFCs assigned to Service Control for approval of the *Accept* phase, see *Approving/Denying RFCs* on page 499 for detailed steps on retrieving RFCs for closure.

Note: When ServiceCenter displays the Changes awaiting your approval form, listing RFCs assigned to your group(s) for approval, the RFCs for approval are in the *Accept* phase.

Approve RFCs

Check with the Change Initiator to make sure that changes to the RFC have been satisfactorily completed. When ready, follow the steps outlined in *Implement Phase - Raise Tasks* on page 515 to approve RFCs in the Accept phase.

Repeat the steps for all changes awaiting your approval.

Close the Accept Phase

To close the Accept phase:

1. On the Changes awaiting your approval form (see Figure 10-52 on page 500), click **Switch Inbox** to select a view of calls assigned to the Change Owner. ServiceCenter displays the Change Request Inbox dialog box.
   a. Click the down arrow in the QBE list box to display the Inbox options.
   b. Select **RFCs awaiting closure** and click **OK**.
2. ServiceCenter displays the Changes Inbox:RFCs awaiting closure form. Select and double-click the RFC ready to be closed.
3. Click **Close** in the toolbar.
4. If the RFC is successfully completed, leave the default entry of **1 - successful**. Otherwise, select the appropriate closure code from the drop down list and continue.
5. Click **OK**. ServiceCenter returns to the Inbox form.
6. Click **Refresh** to remove the closed RFC from the Inbox list.
7. Repeat the above steps until you have completed all RFCs allocated to you for closure of the *Accept* phase.
8. Click **Back** to exit out of the successive application forms and return to the home menu.

11 CHAPTER IR Expert

This chapter introduces concepts and components of Information Retrieval (IR) Expert and Knowledge Engineering.

Topics in this chapter include:

Overview

IR Expert is an intelligent, concept-based information retrieval (IR) engine that searches the ServiceCenter (SC) database for similar/related information based on a simple, natural language query. Instead of relying on exact-match keywords to select like incidents from the ServiceCenter Incident Management database, for example, the description of an Incident is used to locate similar incidents via IR Expert. The records called up are then assigned a probability of relevance, allowing retrieved documents to be ranked in order of relevance to the original query. Details of the relevance ordering are provided in the *Database Management and Administration Guide*.

Using Standard QBE with IR Expert

When a query is first received, ServiceCenter checks to see if the file being targeted contains any IR keys. If any data is entered in a field that is part of an IR key, then an IR query is executed before any other query. However, IR queries can be combined with other queries to help pinpoint information.

For example, in Incident Management you may want to find out about a particular application error code, but only for incidents in the **sysops** assignment group. If you enter **sysops** in the **assignment** field and **application fails with 00023.EXE when right button is used** in the incident description, IR Expert searches first for incidents that are like the incident description (containing words related to the stems of each major component of the example message). Then, any incidents found by the IR search are eliminated if the assignment field does not begin with **sysops**.

Note: In previous releases of ServiceCenter Incident Management, a standard query from the **description** field is trapped as a non-keyed query; users who are prohibited from executing non-keyed queries are not be allowed to perform IR queries in Incident Management without using the IR Query option, found in the Option menu.

An IR search can also be used in conjunction with the **Find** option. Simply define a link from a field in which you would normally perform your IR query in the source file to any field that is part of an IR key in the target file.

For example, you can define a link from the **Action,action** field of the problem file to the **description.structure,description** field of the cm3r file to detect similar change requests when opening or updating an Incident. See the *System Tailoring* guide, *Link/Join* for information on linking records and establishing links between fields on forms.

By default, IR Expert returns a QBE list of records for each search. The number of records selected is a function of the granularity of the IR parameters and the presence or absence of additional, non-IR query elements.

Standard IR Expert Access

IR Expert is most often and easily accessed by clicking **View Knowledge Base** on the Toolkit tab of the System Administrator's home menu.

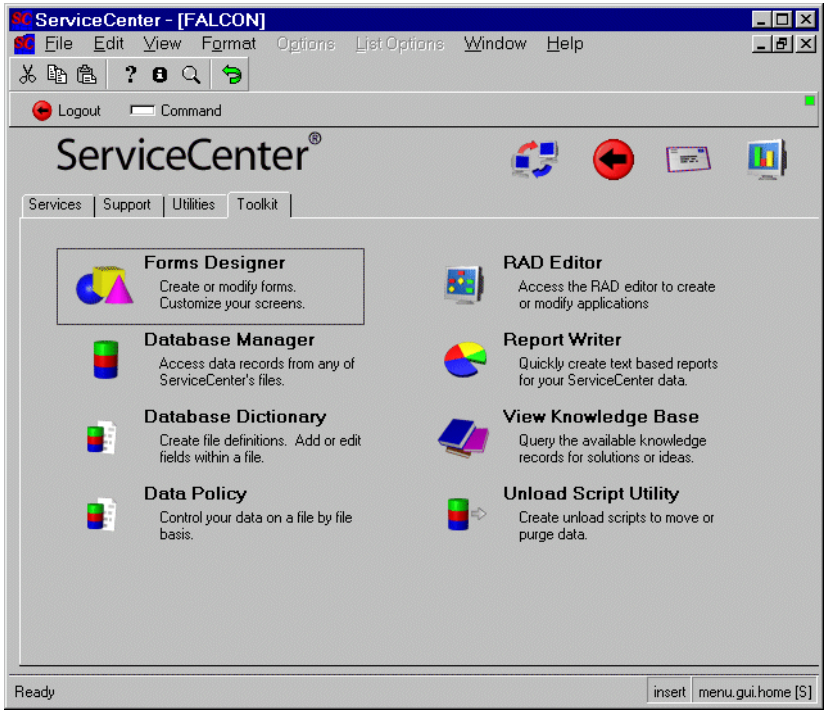


Figure 11-1: Toolkit tab in the System Administrator's Home menu

The Knowledge Base tool is a front-end to IR Expert, submitting a query against one of the specified databases or files. The user-friendly access form of the Knowledge Base allows users with specific search and operator restrictions to access problem solutions and other relevant data without being compromised by system security.

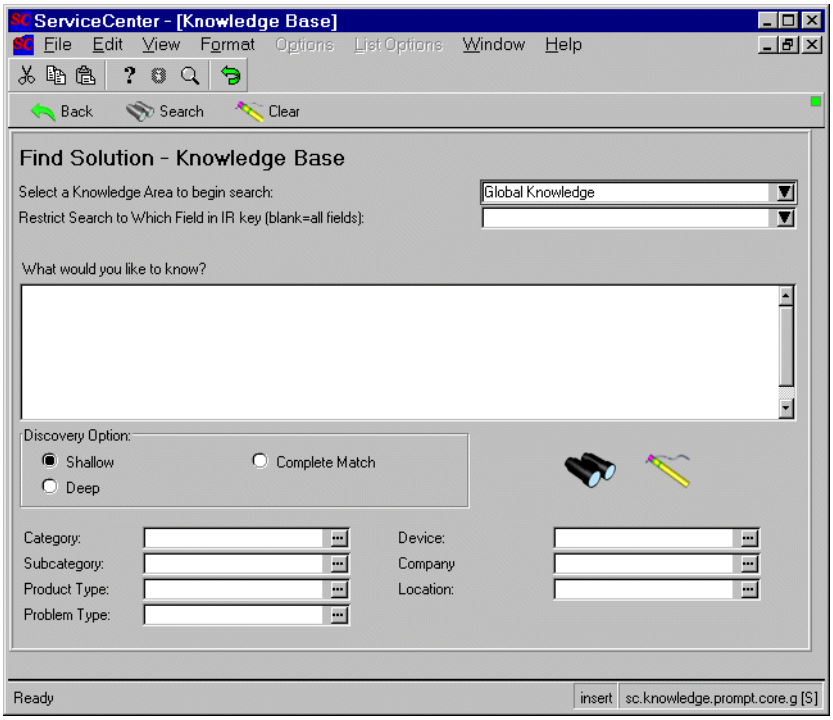
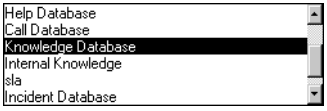


Figure 11-2: Knowledge Base entry form

The fields of the Knowledge Base form are defined as follows:

Field	Description
Select a Knowledge Area to begin search	This is a list of established groups on the database, where IR information is stored. Those files with IR keys defined are listed here. Pull down the database menu using the arrow, and select from the available list of knowledge areas. Several files are pre-defined on the system as search areas. These include *probsummary*, *knowledge, probcause,* and *incident*. You may also search all knowledge areas simultaneously, using the Global Knowledge option. This option runs a query against the core knowledge file, which is a compilation of all knowledge resources. 
Restrict Search to Which Field in IR key (blank=all fields)	This drop-down list displays the fields in the IR Key defined for the database named in the previous field. Select a field name if you want to restrict your search, or leave this field blank to search against all the fields in the key. 

Field	Description
What would you like to know?	This field contains a user-entered plain text query. Key words and whole phrases can be used in this field. Any values inserted here are queried against the values in the IR keys of the specific IR file selected in the previous field.
Discovery Option	The selection here defines the depth and degree of spreading used by IR Expert during the search. A **Shallow** search only returns records, Incident tickets for example, containing the keywords or words used in the query. A **Deep** search employs spreading, where a search is performed on the query and then the search is continued based on words found in the records returned by the original search. Using a deep search identifies all files satisfying the query and those related to these records. By default IR queries accessed through Knowledge are set to Deep.  The **Complete Match** option returns only records which exactly match the query data.

To pass a query using the IR Expert system:

1 Fill in these fields with the specific values and data to gather the information you want, such as, similar solutions used in previous Incident tickets of the same category, for the same asset or related piece of equipment, or recently accepted problem solution candidates.

See *Using the Knowledge Base* on page 562 for specifics on searching the Knowledge Base.

2 Click **Search** to pass the query.

After the query is passed, a QBE list of records displays along with the first record in the list, if more than one record is located.

The QBE list of knowledge records displays (Figure 11-3). Each of these represents a hit in the IR Expert search. How these results are processed is detailed in the *Database Management and Administration Guide*.

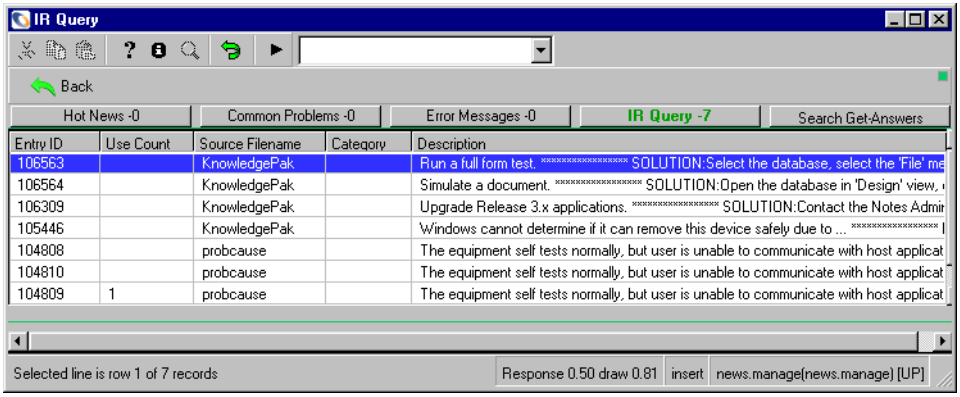


Figure 11-3: QBE list of Knowledge records

3 To view the first record, double-click on the entry. The first entry in the list displays in the form.

4 To view another record in the list, click on the entry.

Available options are:

- Click **Options>Modify Query** to return to the Knowledge Base search form and run another query. Repeat the steps above.
- Click **Options>Reselect All** to refresh the query record list displayed in the queue.

An example of a selected record from the Knowledge Base search is shown in Figure 11-4.

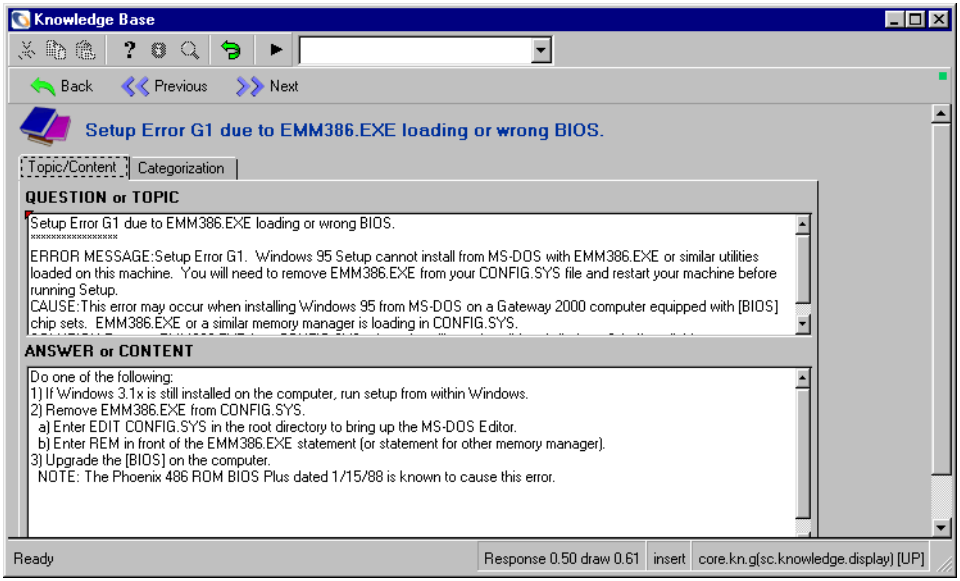


Figure 11-4: Knowledge Base form

Available options are:

- Choose **Options>View Query** to go back to the initial query.
- Choose **Options>ADL User Modifications** to create adaptive learning user modifications within the Knowledge Base. See *Adaptive Learning* on page 573 for specifics.

Using the IR Query Option

The Base (IR query) option displays in the Options pull down menu of several ServiceCenter applications. This option provides the same functionality used by the Knowledge Base tool, employing IR Expert to locate specific like or related information in ServiceCenter.

- The same query can be successively executed against multiple files.
- The query can be tuned or modified and resubmitted.
- Information can be copied from a target record into the source field.
- Additional mini files or IR specific files can be built while updating conventional files based on conditional logic.

Accessing IR Query

The IR Query application can be directly accessed when browsing, opening, updating or closing incidents, service management calls, and when using the Database Manager.

Refer to *Service Management* on page 105 and *Incident Management* on page 197 for detailed information on accessing and using the Service Management and Incident Management applications. Refer to the *Database Management and Administration Guide* for detailed information regarding the Database Management applications, and for instruction on accessing IR Query through Database Manager.

- From the Service Management (help desk) main application menu the Search Knowledge Base option is available as a button.
- From the Call Queue, the IR Query parameters are available on the search form called with the **Search Calls** option in the Options menu, or the Search button on the main portion of the form.
- From the call open, update and close forms, IR Query is available through the **Find Solution** option in the Options menu.
- From the Incident Management main application menu the Search Knowledge Base option is available as a button.
- From the Incident Queue the IR Query parameters are available on the search form called with the **Search Incidents** option in the Options menu, or the Search button on the main portion of the form.
- From the Incident open, update and close forms, IR Query is available through the **Find Solutions** option in the Options menu.
- From the Database Manager application, IR query is available from any form as an option in the Options menu.

Once IR Expert has been accessed from a record, you must manually choose which database on which to perform the query, and on a separate form insert the specific query to run.

Accessing IR Query from Service Management

To perform an IR query from the initial Service Management Call Queue form:

1 Click **Search**.

The Service Management search form displays.

2 Select the IR Query tab.

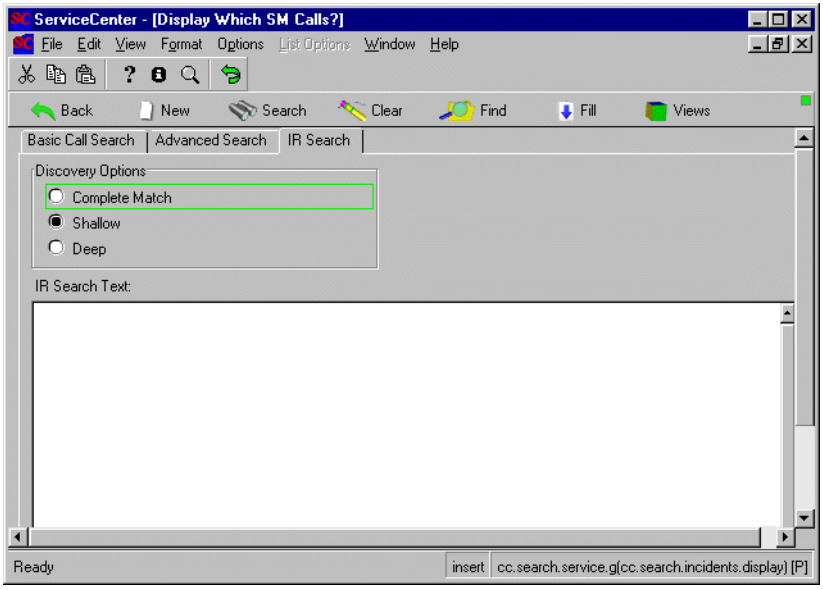


Figure 11-5: IR Query issued from Service Management

3 Select a Discovery Option.

4 Fill in your IR query criteria.

5 Click **Search**.

The IR query is automatically executed against the ir.probsummary file first. A record QBE list is returned and the first record displays.

Accessing IR Query from Incident Management

To perform an IR query from the initial Incident Management queue form:

1 Click **Search**.

The Incident Management search form displays.

2 Select the IR Query tab.

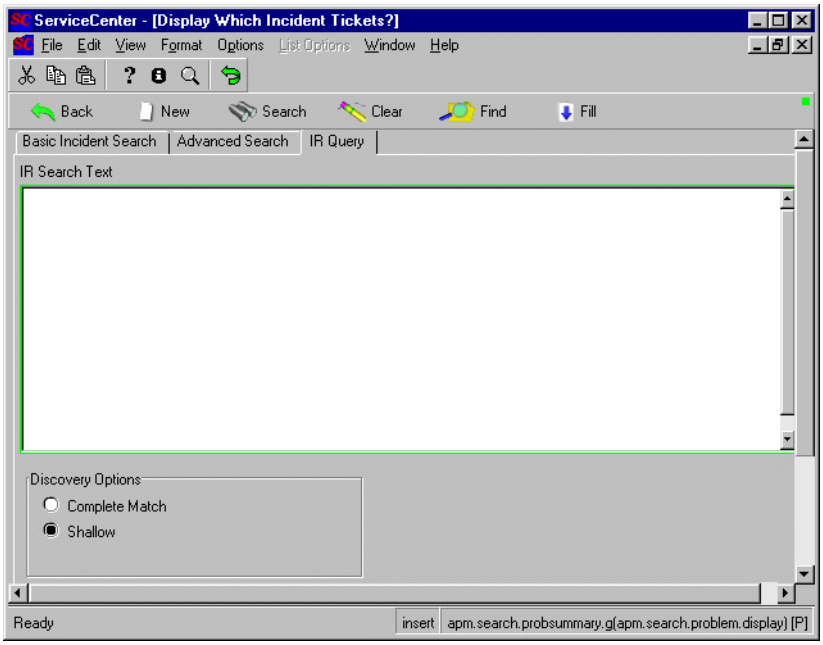


Figure 11-6: IR Query issued from Incident Management

3 Enter your IR query criteria.

4 Select a Discovery Option.

5 Click **Search** to run the query.

The IR query is automatically executed against the ir.probsummary file first. Then a record QBE list is returned and the first record displays.

Using IR Query

Depending on how IR query is accessed, you are presented with a search form containing a query (if invoked from an Incident Management or Service Management application) or a form prompting you to select the file (knowledge base) to search. See Figure 11-2 on page 524.

IR Expert requires a specific query to process against the target file. This is a plain text query. A *true* query (inserting no query statement and simply pressing Enter) cannot be passed to retrieve all records in the specified file.

A QBE list is then returned containing related records, sorted by relevance.

If you have issued an IR query by selecting the **Find Solution** option from the **Options** menu within a incident or call record, you can select to record and post information from the IR record back to your source (incident or call) record.

Copying Fields

To copy information back to your source record:

1. Select a record from the list returned by the IR query.
2. Position the cursor in the field to be copied.
3. Select Use Solution from the Options menu.

   The source record is redisplayed.

   This action copies the information in the source cursor field (the field the cursor was in when the copy field button was selected) to the target field (the field the cursor is in when the confirm button is selected). The copied information replaces the original information in the source file.

Changing Queries

Once you have opened your original record from the IR search, you can also modify your original IR query instead of or before copying information back to the source record.

To modify your original IR query:

1. From the selected retrieved IR record, pull down the **Options** menu.
2. Select the **Modify Query** option.

3 From the redisplayed IR Query form you can either change the search criteria or change the IR file (knowledge base) being searched.

4 Press **Enter** to execute the query against the new file or using the new query.

This action may produce another QBE list.

5 Select the record from the new file and query you wish to view by activating it with the mouse and pressing the Enter key.

Knowledge Engineering

Knowledge Engineering is the term used to describe developing and enhancing the Knowledge base accessed by IR Expert. The application provides System Administrators (knowledge engineers) several knowledge tools, including solution candidates and a core knowledge resource.

In previous releases, ServiceCenter stored knowledge data in multiple files within the system. Users were required to identify which knowledge file to search, and often performed multiple searches to locate appropriate data. As a result of this process, and limitations on adding new data to these knowledge files, not all searches returned satisfactory data. Both issues are resolved through the creation of the following knowledge engineering tools.

- The first tool is a centralized knowledge base. Data already contained in other knowledge bases, e.g. the knowledge, KnowledgePak, and probcause files, is automatically replicated into a central knowledge file, called core. New knowledge can either be added directly to the central knowledge base, or it can be added to the various individual knowledge bases. As records are added to these databases, ServiceCenter automatically replicates their contents into the core knowledge file.
- The second tool is a new field on Incident tickets and incidents. This field is called solution.candidate. When Incident tickets or call records are being closed, users can mark the records as solution candidates. Relevant information from these solution candidates is automatically extracted and moved into a pre-knowledge file, called protocore. Knowledge engineers then review the data submitted as candidates, modify it as needed, and either promote a problem/solution combination to the core knowledge file, or reject it.

Using Knowledge Engineering

Marking an Incident Ticket as a Solution Candidate

Marking an Incident ticket as a solution candidate is something all users can do by default. When they recommend a problem solution, they are suggesting to the knowledge engineer that the particular problem is a good candidate for the knowledge base. This option is only available when an Incident ticket is being closed.

To mark an Incident ticket as a solution candidate:

1. Select an Incident ticket from Incident Management.
2. Click **Close** to put the ticket in close mode.
3. Place a check in the Candidate for Knowledge Base check box.
4. Continue closing the Incident ticket normally. The system automatically replicates relevant data from the Incident ticket into the knowledge holding area (*protocore* file).

See *Finding a Solution While Creating a New Incident Ticket* on page 568 for specifics.

Promoting or Demoting a Solution Candidate

As users work with the system and close Incident tickets as solution candidates, the holding area (protocore) fills. Knowledge engineers examine these proposed solutions and promote them to the central knowledge base (core) if appropriate, or delete them if they are not good problem/solution combinations.

Note: If the **Autopost Solution Candidates?** (auto.post) field is set to *true* (checked) in the Incident Management Environment record, recommended solution candidates are automatically approved (sent to the core file). The check box must be set to *false* (unchecked) for the solution candidates to be held in the protocore file for approval.

To work with records in the holding area (protocore):

1 Select **Knowledge Engineering** from the Utilities tab of the main menu.

This takes you to the Knowledge Engineering menu.

2 Click **Examine Solution Candidates**.

The system launches the Solution Candidate Editor.

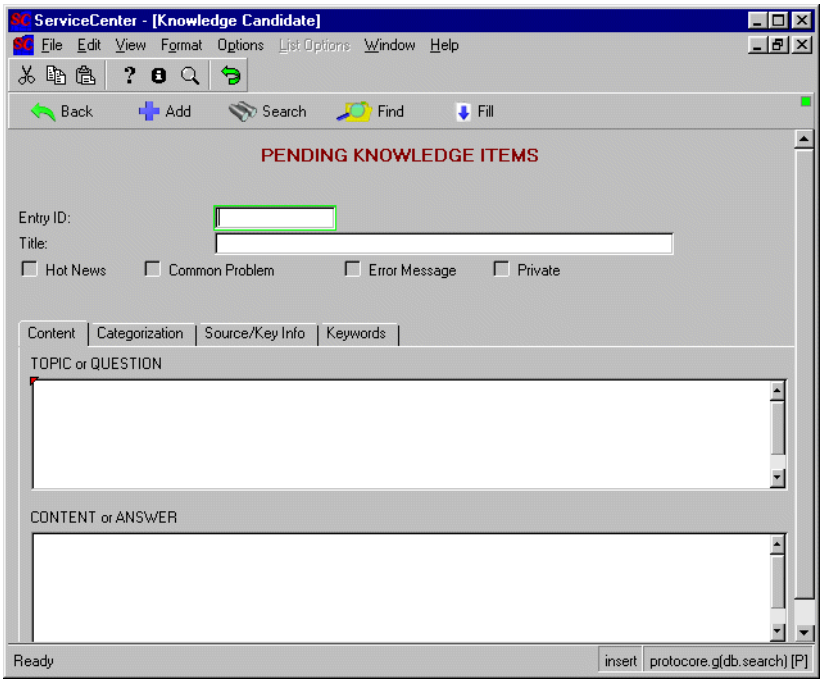


Figure 11-7: Knowledge item record search

The editor works similar to Database Manager. The difference being, once a specific record is selected, a different set of options become available.

3 Click **Search** to pass a *true* query.

A QBE list is presented with the first record displayed.

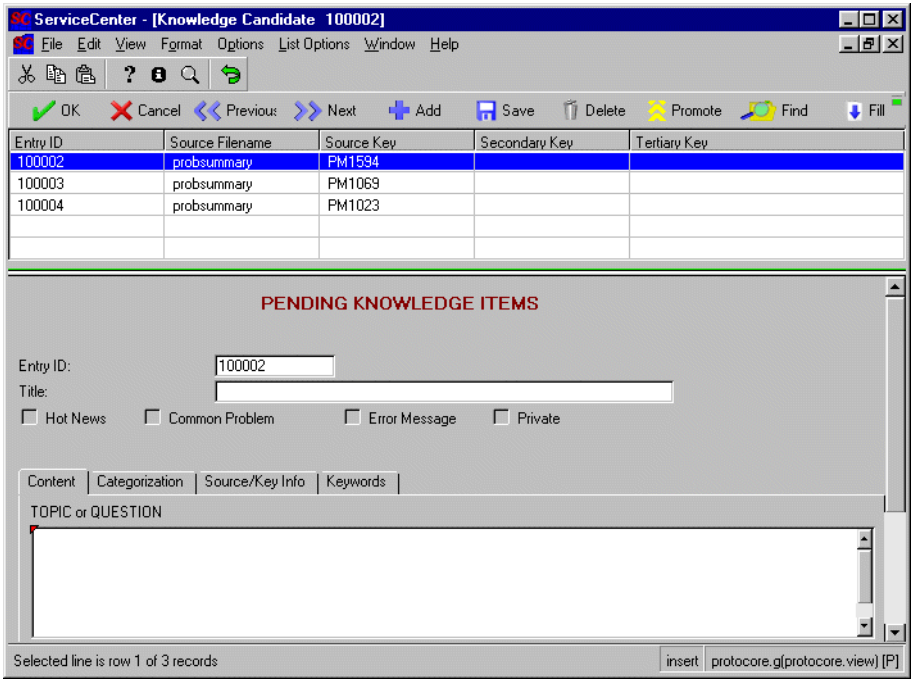


Figure 11-8: Knowledge item record

4 Edit the record if necessary.

5 Click **Promote** to promote the record to the knowledge base.

The record is moved into the central knowledge area (core file).

-or-

Click **Delete** to reject the current record.

The record is deleted from the holding area.

Searching the Central Knowledge Base

The central knowledge base (**core** file) can be searched via the standard ServiceCenter knowledge application. The knowledge application can still search the various tertiary knowledge bases. However, using the Global Knowledge Base searches all knowledge resources. This is the default database for any knowledge search in ServiceCenter.

See *Knowledge Base - Diagnostic Aids* on page 561 for details about searching the Knowledge Base.

To search the central knowledge base:

1. Select **Knowledge Base** from any one of the various menus or methods described earlier.
2. In the Select a Knowledge Area to Search combo box, select **Global Knowledge**.
3. Enter a query
4. Click **Search**.

   Note: If you accessed the knowledge base via the Find Solution option from an incident or call record, your incident description has already been copied into the query window when you reach this form.

5. Review search results.
6. Pass another query, if necessary.

A Printing

APPENDIX

This appendix outlines the procedures for printing from ServiceCenter. You can print QBE Record lists or individual records from all the applications.

It has been divided into the following sections:

Overview

The options available to you for printing from ServiceCenter depend on whether your system is configured for client printing or server printing. For a discussion of the server and client printer configurations, refer to *Server Printer [S] and Client Printer [P] Configurations* on page 541.

Note: Although the print options vary slightly between applications, the basic procedure for printing is the same. An example of printing from Incident Management is used to illustrate printing procedures.

Note: Printing from ServiceCenter only supports the usage of text-based forms and does *not* support the printing of GUI objects, such as buttons, table objects, and combo boxes.

Server Printer [S] and Client Printer [P] Configurations

The options available to you for printing from ServiceCenter depend on whether your system is configured for client printing or server printing. An [S] in the lower right corner of a ServiceCenter form indicates you have the *server* printer option established for your system (see Figure A-1).
A [P] in the lower right corner of a ServiceCenter form indicates you have the *client* printer configuration selected.

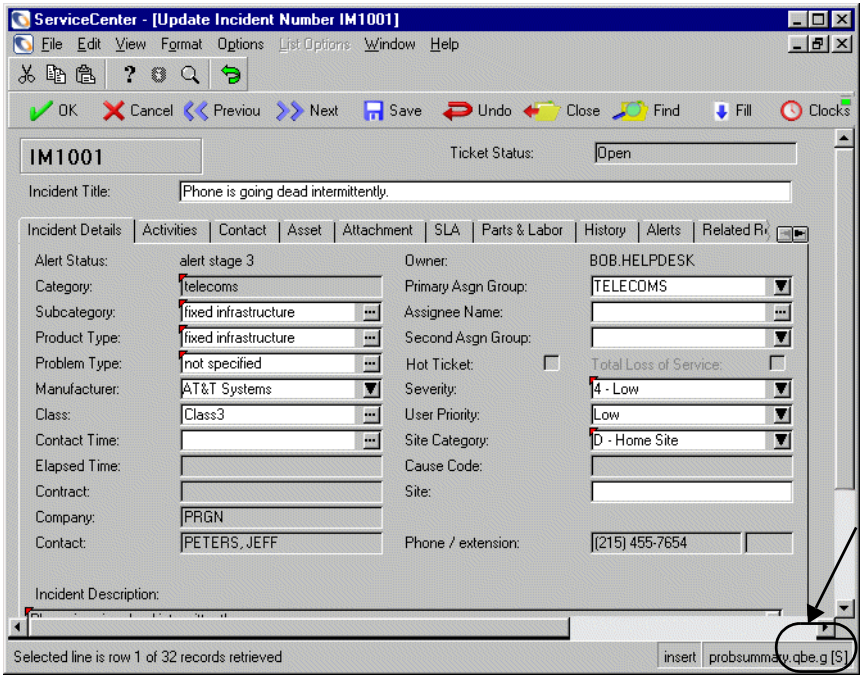
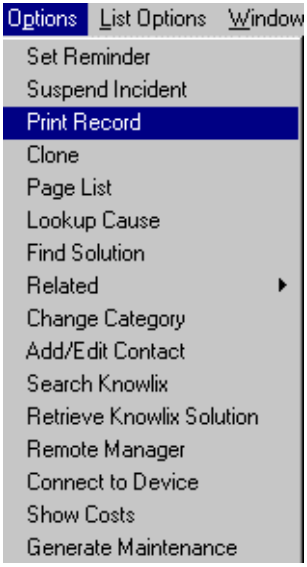


Figure A-1: Printer Configuration indicated in the bottom right hand corner

Print an Individual Record

1 With the record displayed, select **Print Record** from the **Options** Menu.



A Confirm Action dialog box displays (Figure A-2 on page 543), so you can choose your Print options. If the server printer configuration [S] has been set up, the server printer Print options are then displayed (Figure A-3 on page 543).

If you are set up with the client printer configuration [P] and would like to change to the server printer, see the *System Administrator's Guide*.

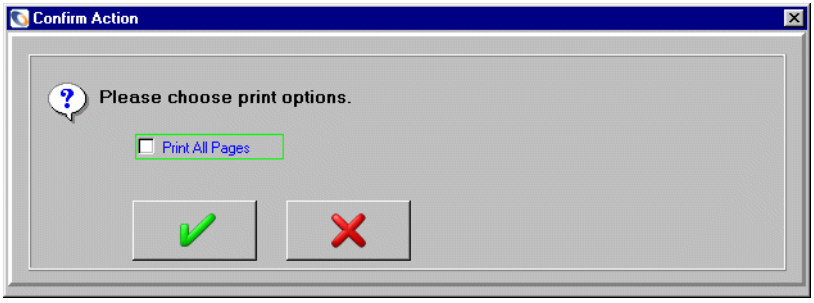


Figure A-2: Print Record Optio(ns - Client Printer

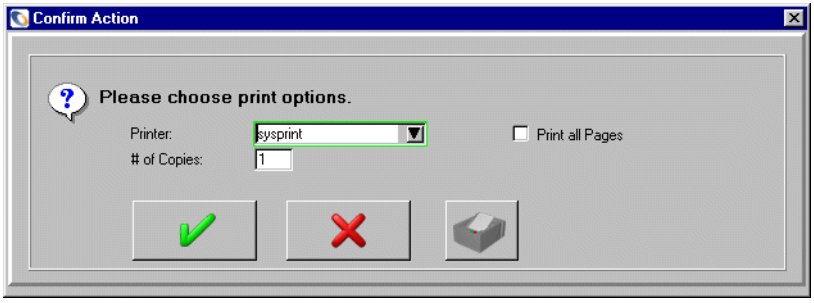


Figure A-3: Print Record Options - Server Printer

2 Click the **Print all Pages** check box if you want to print all the pages in the incident ticket.

3 If the Server Printer Configuration [S] is set up (Figure A-3):

a Click the Down Arrow to select a different printer from the drop-down list.

b Click **Printer** to display a QBE list of available printers.

c Type the number of copies you want to print (the default is 1).

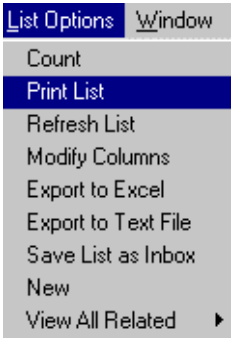
4 Click **OK**.

-or-

Click **Cancel** to cancel the print request.

Print a QBE Record List or Each of the Records in a List

1 With a QBE list displayed, select **Print List** from the **List Options** menu.



A Confirm Action dialog box displays (Figure A-4 on page 544), so you can choose your Print options. If the server printer configuration [S] has been set up, the server printer Print options are then displayed (Figure A-5 on page 545).

2 If you are set up with the client printer configuration [P] and would like to change to the server printer, see the *System Administrator's Guide*.

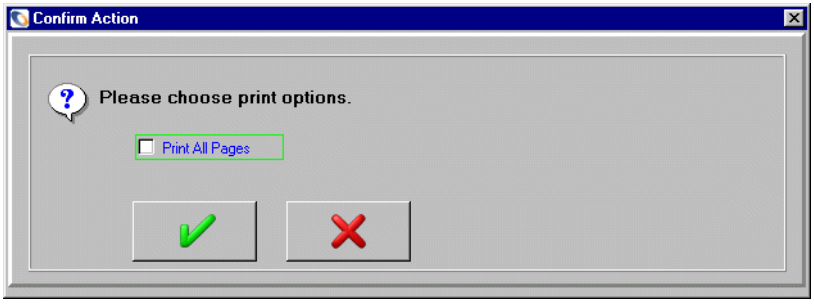


Figure A-4: Print List Options - Client Server

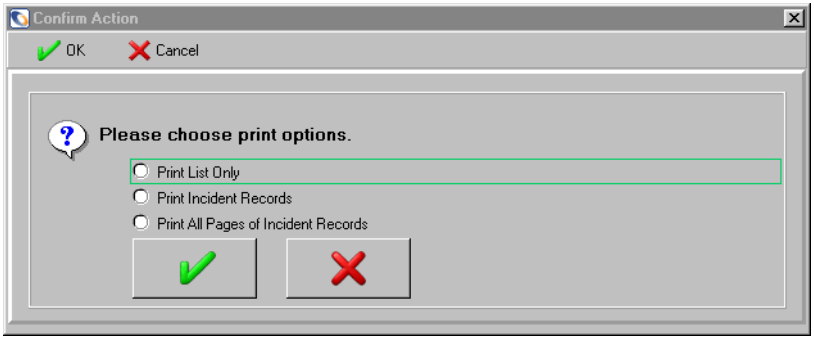


Figure A-5: Print List Options - Server Printer

3 Select one of the following options:

- **Print List Only**—prints a copy of the QBE list of records.
- **Print Incident Records**—prints a copy of every incident ticket in the list.
- **Print All Pages of Incident Records**—prints all pages associated with all incident tickets listed in the QBE list.

4 If the Server Printer Configuration [S] is set up (Figure A-5):

a Click **Printer** to display a QBE list of available printers.

b Select a printer from the drop-down list in the **Printer** field to send the print command to a printer other than the default.

c In the **# of Copies** field, type the number of copies you want.

d Check the **Background?** option to schedule the print job to be printed in the background.

5 Click **OK**.

-or-

Click **Cancel** to cancel the print request.

Summary

Although the procedures outlined in this chapter use Incident Management as an example, you can use the same procedures for printing from the other ServiceCenter basic applications (Service Management, Change Management, and so forth). Some print options dialog boxes differ slightly from those shown here, but the basic process is the same throughout the applications.

For more detailed information about printing, see the *System Administrator's Guide*.

APPENDIX B

The Contacts File

The ServiceCenter database contains a **contacts** file with records of the users. These records are used to fill the contact name fields in the ServiceCenter applications, such as the **Reported By** fields in incident tickets and call reports.

Contact records can be accessed directly or from the various applications. See the chapters on the individual applications for instructions on accessing these records from applications.

This appendix provides the discussion of the following topics:

Accessing Contact Records Directly

As a system administrator or help desk operator, you can access a contact record directly.

- As a help desk operator, click **Contacts** in the Home menu.
- As an administrator, click **Contacts** in the Support tab of the Home menu.
- From a contact field (such as **Reported By**), click **Find**, or press **F8**.

The Contact Information form (Figure B-1 on page 548) displays.

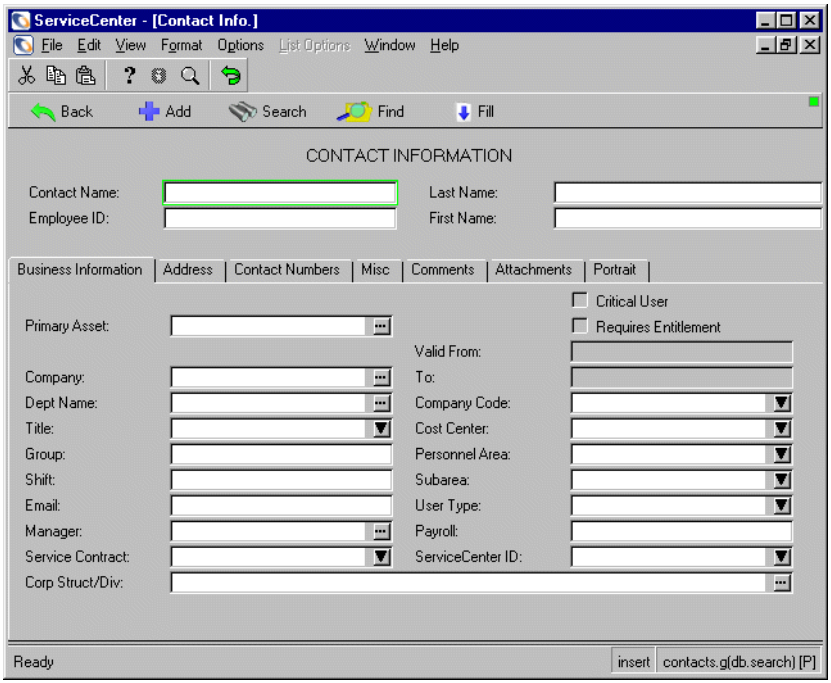


Figure B-1: Initial Contact Information form

Contact Record Fields

When you fill in a **Reported By** field on a form in a ServiceCenter application, only the name displays. The detailed information about the contact is stored in the Contact record.

The fields with **Find** are linked to other ServiceCenter files; for example, **Company** is linked to the company file, **Location** is linked to the location file, and **Workstation** is linked to the device file.

The top section of the contact form contains the following fields:

Field	Description
Contact Name	Name used in the **Reported By** fields.
Employee ID	Unique alphanumeric string identifying the contact. You can enter the employee's company ID as defined by the Human Resources department.
Last Name	Contact's last name.
First Name	Contact's first name.

Contact Information Form Tabs

The following tabs are found on the Contact Information form.

Business Information tab

The Business Information tab (pictured in Figure B-1 on page 548) provides general work information about the contact.

Fields

Field	Description
Primary Asset	Main device used by this contact (for example, a PC). This device is defined in the **device** file.
Company	Company employing the contact.
Dept Name	Department in which the contact works, such as *engineering*, *development*, *or accounting*. The Dept Name and Corp Struct/Div fields work together, so, for best results, always use **Fill** to enter data into either field. Using **Fill** against either field fills related values into both fields. Furthermore, before changing data in either field, first delete the existing values in both the Dept Name and Corp Struct/Div fields, then click Fill.
Title	Contact's job title.
Group	Contact's work group, for example, *data communications*, *quality assurance (QA)*, *or billing*.
Shift	Shift the contact works, such as *day* or *night*.
Email	Contact's e-mail address.
Manager	Contact's manager.
Service Contract	Service contract covering the contact.
Corp Struct/Div	A single field that unites both the company and department for this contact. The Dept Name and Corp Struct/Div fields work together, so, for best results, always use **Fill** to enter data into either field. Using **Fill** against either field fills related values into both fields. Furthermore, before changing data in either field, first delete the existing values in both the **Dept Name** and **Corp Struct/Div** fields, then click **Fill**.
Critical User check box	Check this box to flag that this information should be used to populate the critical user flag on calls. This indicates that the call is from a critical user and should receive special attention.
Requires Entitlement check box	Check this box to flag that this information should be used to populate the Service Entitlement check on calls. This indicator defines if the ticket should be checked for Service Entitlement prior to being worked.
ServiceCenter ID	Shows the operator name (from the *operator* file) for contacts that are also ServiceCenter operators.

The fields on the right side of the form (**Valid From/To**, **Company Code**, **Cost Center**, **Personnel Area**, **Subarea**) are related to the SAP application and used in administrative functions. Refer to the *System Administrator's Guide*.

Address tab

The Address tab (Figure B-2 on page 551) provides information about the contact's location.

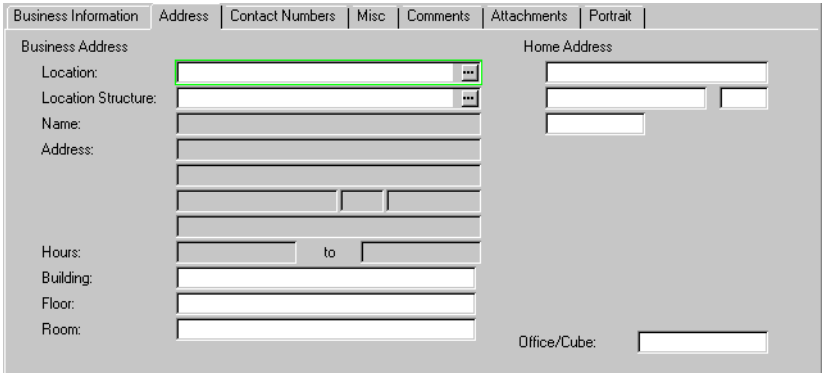


Figure B-2: Initial Contact Information form, Address tab

Fields

Field	Description
Location	Alphanumeric string identifying the site where the contact works. This code is set in a locations record.
Location Structure	Alphanumeric string identifying the company where the contact works. This code is set in a locations record.
Name	Name of the facility where this contact is located.
Address	Street address of the facility.
Hours	Hours the location is accessible.
Building	Building in which the contact works.
Floor	Floor on which the contact works.
Room	Overall room where the contact works.
Office/Cube	Office or cube, possibly within a larger room, where the contact works.
Home Address	Contact's home address.

The **Name**, **Address**, and **Hours** fields are automatically filled in from the locations record for this location.

Contact Numbers tab

The Contact Numbers tab (Figure B-3 on page 552) provides fields where you can enter telephone, fax, and pager information about the contact.

Note: Pager, fax and email (on the Main tab) information accuracy is important for utilizing the SC email, paging and fax utilities.

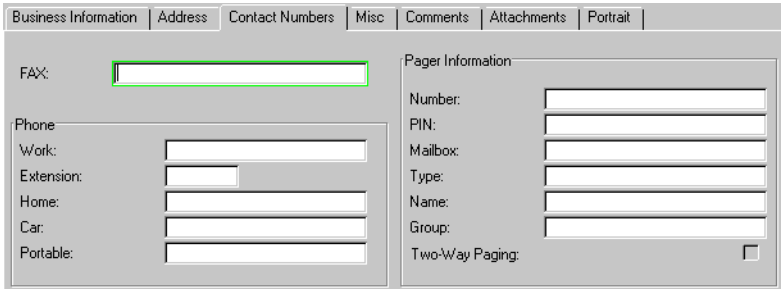


Figure B-3: Initial Contact Information form, Contact Numbers tab

Misc tab

The Misc (miscellaneous) tab contains fields that are used by the SCAuto for SAP Human Resources Interface. You can document the contact's aristocratic title, language, and form of address. You can also record the type of communication and a communication number.

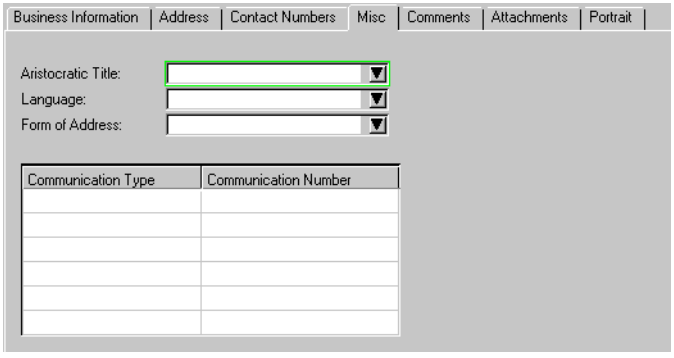


Figure B-4: Initial Contact Information form, Misc tab

Comments tab

The Comments tab allows you to enter comments about the contact. This tab displays a text box (Figure B-5).

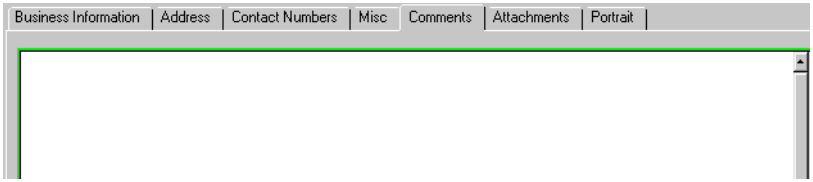


Figure B-5: Initial Contact Information form, Comments tab

Attachments tab

The Attachments tab contains a field (same as Figure B-5) where you can attach files from other applications (for example, an Excel spreadsheet) to the Contact record. Files can be added by dragging them into the field, or by copying and pasting the file.

Portrait tab

The Portrait tab contains a blank frame where you can insert a bit-mapped image. For example, this image could be a picture of the contact. This option is available for Windows- and Java-based clients only.

To insert a bitmap:

1. Right-click the blank frame of the Portrait tab and choose **Insert bitmap**.

   A standard Windows dialog box displays.
2. Select the bitmap (.bmp) file that you want displayed in the tab.
3. Click **Save** or press **F4** to save the image with the record.

To delete a bitmap:

1. Access the Portrait tab of the contact record.
2. Right-click the blank frame of the Portrait tab and choose **Delete bitmap**.

   The bitmap is deleted from the Portrait tab.

Creating a Contact Record

In the following steps, you create a record for a contact named *Joe Smith*.

1 Access the menu containing the **Contacts** button. For example, if you are logged on as an administrator, access the Support tab from the Home menu. Refer to the *System Administrator's Guide* for more information about creating Contact records as an administrator.

2 Click **Contacts**.

A blank *contacts* form displays.

3 Type a name in the **Contact Name field**. The name is entered in all capital letters by default. This name could be the contact's last name.

For this example, type SMITH (see Figure B-6 on page 554).

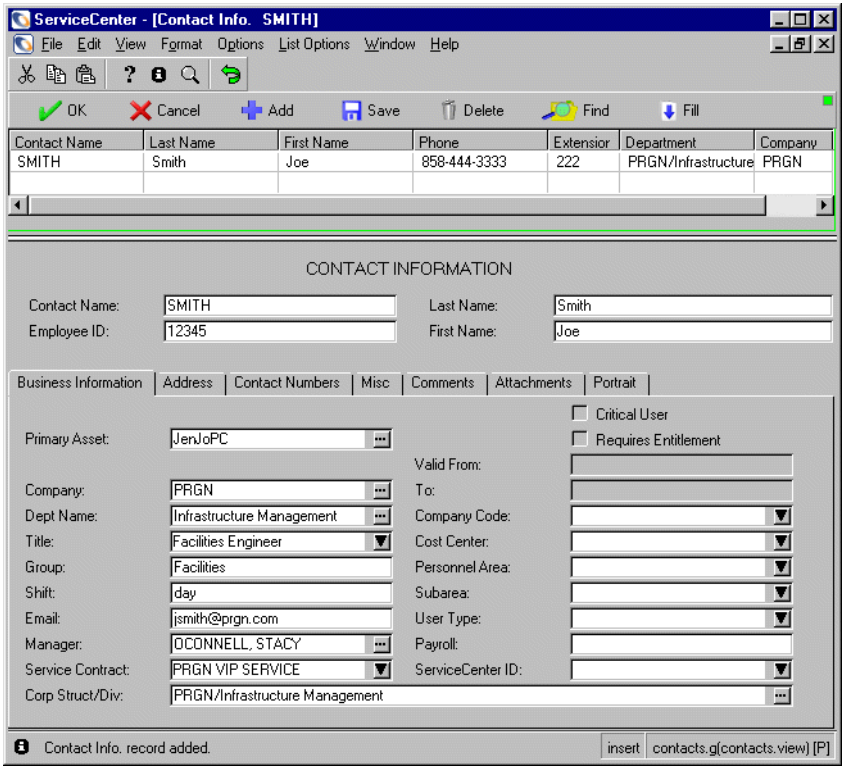


Figure B-6: Sample Contact Record—Business Information tab

4 Type a unique ID to identify the contact in the **Employee ID** field. You can use the contact's last name, or an employee number instead of the name. If you use the employee number, the value in the field is a unique key.

   For the example, type `12345`.

5 Type the user's last name in the **Last Name** field.

   For the example, type `Smith`.

6 Type the contact's first name in the **First Name** field.

   For the example, type `Joe`.

7 Enter the contact's **Primary Asset**.

   a Put your cursor in the **Asset** field and click **Browse** to select an asset.

      For the example, select `JenJopc`.

8 If the company has not already been entered, enter the contact's company.

   a Put your cursor in the **Company** field and click **Browse** to select a company.

      For the example, select `PRGN`.

9 Put your cursor in the **Dept Name** field and click **Browse** to select a Department Name.

   For the example, enter **Infrastructure Management**.

   Note: The **Corp Struct/Div** field fills as well.

10 Optionally put your cursor in the **Title** field and select a title from the drop-down list.

   For the example, select `Facilities Engineer`.

11 Enter information in the remaining Business Information fields. Figure B-6 on page 554 shows an example for *Joe Smith*.

12 Select the Address tab.

a Click **Browse** to select a location structure.

b Optionally type location information in the **Building**, **Floor**, **Room**, and **Office/Cube** fields (Figure B-7 on page 556).

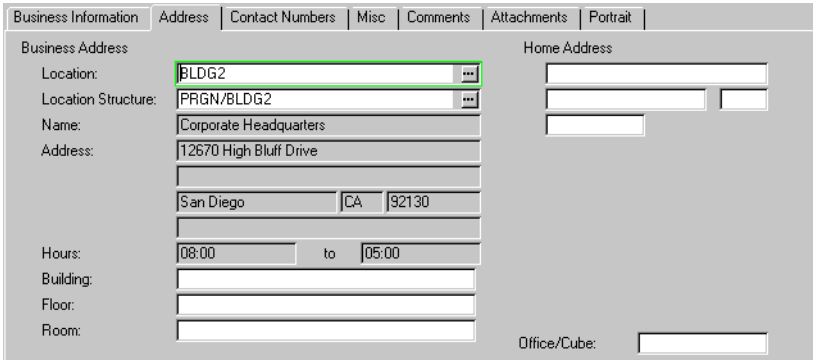


Figure B-7: Contact Record—Address tab

13 On the Contact Numbers tab (Figure B-8 on page 556), optionally type the contact's telephone, fax, and pager information.

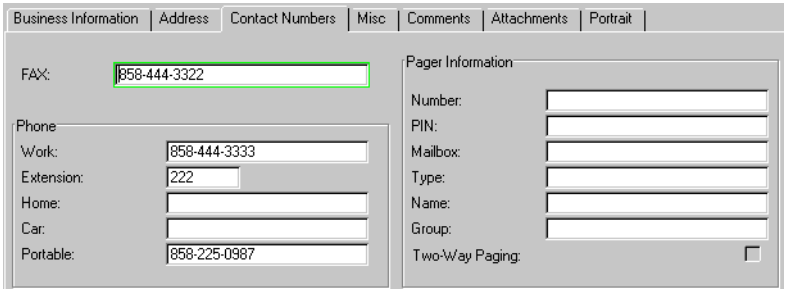


Figure B-8: Contact Numbers tab

14 On the Comments tab, optionally enter any additional information about this contact.

15 Click **Add**, or press **F2**.

A message displays in the status bar: C*ontact Info. record added.*, indicating that the record has been added to the **contacts** file.

Updating a Contact Record

To update existing contact records:

1 Search for the record you want to modify.

For example, you can access the record for *Joe Smith* that you created in *Creating a Contact Record* on page 554.

The contact record displays.

2 Edit the fields you want to change.

For example, you want to change Joe Smith's phone number to `800 111-2222`.

3 Click **Save**, or press **F4**.

Options Menus

The **Options** menus differ between blank records and existing contacts records.

Options Menu—Blank Record

Option	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 list of possible search parameters. After a parameter is selected, a window displays that allows you to set a time limit for a query. This time is entered in the hh:mm:ss format. Only available in the initial form in which you enter data.
IR Query	Accesses the ServiceCenter IR Expert application.
Export/Unload	Allows you to export this record into a file for importing into a spreadsheet, or unload this dataset 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 *validitytable* for that field.
Open Inbox	Allows you to select an existing Inbox to enter predefined search criteria into the contacts form.
Expand Array	Allows you to add a field to an array.

Options Menu—Active Record

Option	Description
Print	Prints the currently displayed record.
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 dataset for loading into another ServiceCenter system. Basically, you can export information to any product that has DDE (Dynamic Data Exchange) support.
IR Query	Accesses the ServiceCenter IR Expert application.
Expand Array	Allows you to add a field to an array.

List Options Menu—Active Record

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.
Count	Counts the number of records in the current contact record list.
Print List	Allows you to print the record list or all records in the list.
Refresh	Updates the contact record list to reflect any recent changes.
Modify Columns	Allows you to change the column headings of the record list.
Export to Excel	Exports the current contact 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.
Export to Text File	Exports the contact 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.

APPENDIX C

Knowledge Base - Diagnostic Aids

ServiceCenter allows you to make plain language queries (such as, searches for information about an incoming call or incident ticket, or a question about equipment). Through the use of the Knowledge Base Diagnostic Aids, you can retrieve resolutions to reported incidents and problems and teach the Knowledge Base through use of adaptive learning. You can search for resolutions directly from the Knowledge Base, or from Service Management or Incident Management.

Diagnostic Aids within the Knowledge Base contain:

- Hot News
- Common Problems
- Error Messages
- IR Queries
- Search Get-Answers

An example of a Knowledge Base query could yield three *Hot News* entries, four *Common Problems*, two *Error Messages*, and fifty *IR Query* entries. See *Finding Solutions -- Diagnostic Aids* on page 566 to learn more about using the Knowledge Base diagnostic aids and finding solutions.

Using the Knowledge Base

Note: If you are logged on as a system administrator, the View Knowledge Base button is in the Toolkit tab. The Knowledge Engineering button in the Utilities tab is for maintaining the Knowledge Base. Refer to the *System Administrator's Guide* for instructions on maintaining IR Expert and the Knowledge Base.

1 Click **Search Knowledge Base** (*BOB.HELPDESK* or *SUSIE.SUPERTECH* login).

The Knowledge Base search form displays (see Figure C-1 on page 562).

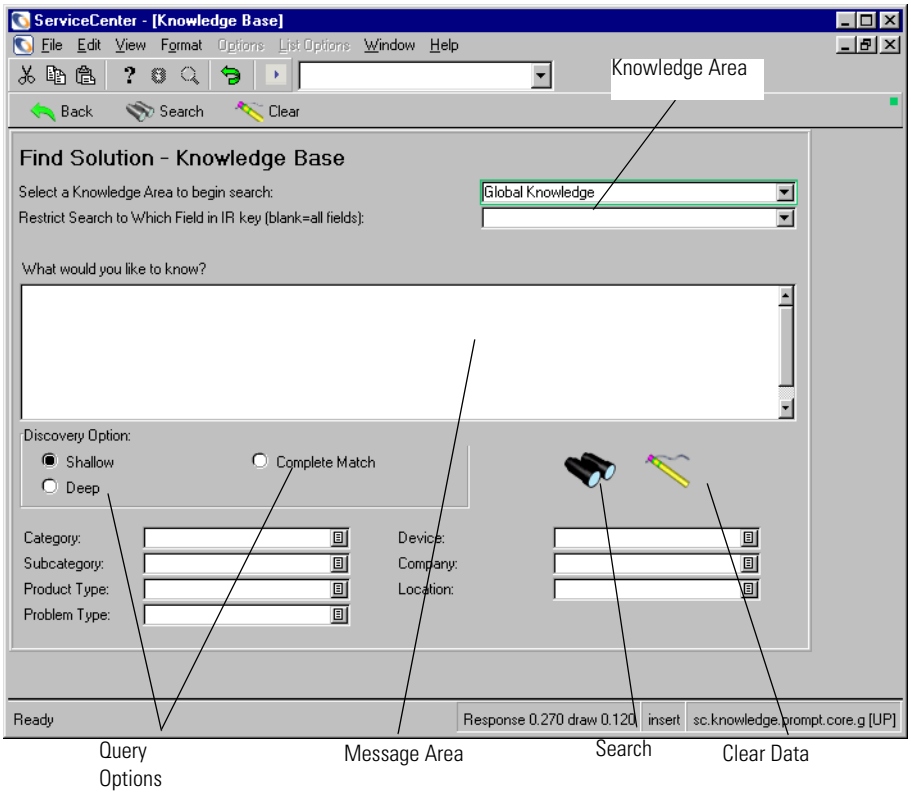


Figure C-1: . Knowledge Base Search form

2 In the **Select a Knowledge Area to begin search** field, click the arrows to select a knowledge area from the options on the drop-down list:

- **Change Database**—searches the change record database.
- **Global Knowledge**—searches a general knowledge database.
- **Help Database**—searches the help database, which provides information about specific fields on forms.
- **Call Database**—searches the call reports (incidents file).
- **Knowledge Database**—searches a knowledge database.
- **Internal Knowledge**—searches the database containing solutions saved from call reports and incident tickets.
- **SLA**—searches the database for Service Level Agreements.
- **Incident Database**—searches the incident ticket database.

3 In the **Restrict Search to Which Field in IR Key** field, select from the drop-down list to restrict your search. If this field is left blank, all fields are searched.

4 Enter a plain language statement in the **What would you like to know?** field.

For example, you enter A workstation is hanging.

5 In the **Discovery Option** structure, select one of the query options:

- **Shallow**—prevents the search from going past the first level.
- **Deep**—allows the search to go past the first level.
- **Complete Match**—the search results must exactly match the input.

When an IR query is run, the first level search looks for records with certain words matching what you entered. Unnecessary words, such as a and is, are ignored. The query then spreads to a second level search to locate records containing matches to the records found in the first level search.

6 Use the ***Fill*** function for one or more of the following fields to further refine your search.

- **Category**—both the Asset category and Incident category of an Incident ticket.
- **Subcategory**—both the Asset subcategory and Incident subcategory of an Incident ticket.
- **Product Type**—product type reported in the Incident ticket.
- **Problem Type**—problem type specified in the Incident ticket.
- **Device**—device being reported in the Incident ticket.
- **Company**—name of the company calling to report the incident. Defines the level of service that is due the caller. It also defines the SLA that pertains to the Incident ticket.
- **Location**—site where the caller works.

7 Click one of the **Search** buttons, or press **F6**.

A QBE form displays with Hot News items (Figure C-2). If there are no Hot News items, then the QBE form remains blank. At the top of the window there are four types of diagnostic aids displayed. They are:

- Hot News
- Common Problems
- Error Messages
- IR Query
- Search Get-Answers

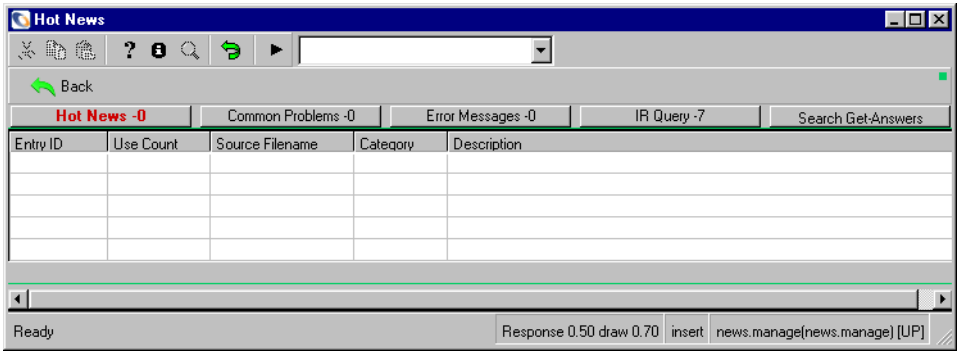


Figure C-2: QBE list with diagnostic aids buttons at top and any Hot News items listed

Note: In this case, the QBE list is blank.

8 Press the buttons to access the available information. Each button displays a total number of entries available for viewing. If there are no entries, then the total displayed is 0 (zero).

For this example, notice there are seven IR Query items. When you click this button, the QBE list displays with a list of IR Query Knowledge entries (Figure C-3).

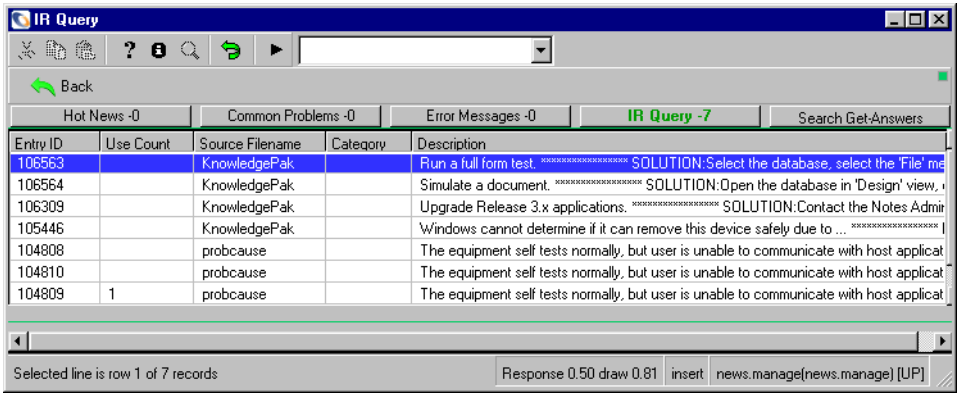


Figure C-3: QBE list of Knowledge records

9 To view the first record, double-click the entry. The first entry in the list displays in the form.

10 To view another record in the list, click the entry.

Available options are:

- Choose **Options>Modify Query** to return to the Knowledge Base search form (Figure C-1 on page 562) and run another query. Repeat the steps above.
- Choose **Options>Reselect All** to refresh the query record list displayed in the queue.

An example of a selected record from the Knowledge Base search is shown in Figure C-4.

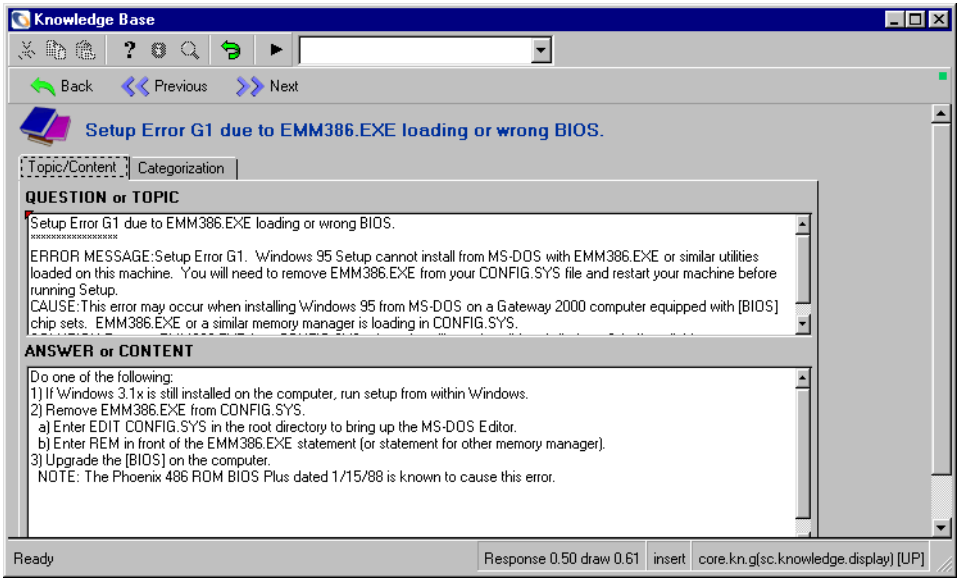


Figure C-4: Knowledge Base form

Available options are:

- Choose **Options>View Query** to go back to the initial query.
- Choose **Options>ADL User Modifications** to create adaptive learning user modifications within the Knowledge Base. See *Adaptive Learning* on page 573 for specifics.

Finding Solutions -- Diagnostic Aids

Finding solutions to plain language queries (such as, searches for information about an incoming call or incident ticket, or a question about equipment) can yield four types of Knowledge Base diagnostic aids.

- Hot News
- Common Problems
- Error Messages
- IR Query
- Search Get-Answers

Hot News

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. *Hot News* can be a solution to a new incident, or problem, or a hot problem, which would be an existing open incident to which the current call could be attached. *Hot News* could be automatically activated by network events (such as, NetView or OpenView).

Common Problems

Common Problems present solutions to problems that have been identified as common or routine. These are not based on frequency of access, but rather on a Knowledge Engineer's assessment of what is most useful most often.

Error Messages

Error Messages are a part of the solution base that focus on those problems that generate specific *Error Messages*. These messages are short strings of text, which allow solutions to be located based on the error strings.

IR Query

IR Query is a thesaurus-based weighted key word matching algorithm that learns through usage.

For example: Two separate queries containing the words *screen* and *terminal* pull up the same solution.

Query: **My screen image is fuzzy**.

Solution: Adjust font

Query: **My terminal is blurry**.

Solution: Adjust font

Search Get-Answers

Opens a browser and presents the Get-Answers application. Get-Answers presents solutions in their native formats, such as Adobe PDFs and Microsoft Office documents.

Finding a Solution While Creating a New Incident Ticket

The help desk analyst can search for Knowledge Base solutions while opening a Call Report or an Incident Ticket. First consider what fields, if any, are linked to the Knowledge Base. For example, any of the fields in the list below may be linked (see *Using the Knowledge Base* on page 562 for detailed descriptions of these fields). If all the fields are linked and they are populated in the Incident ticket before searching for a solution, then that criteria needs to be met in order to be considered as part of the solution. This helps to narrow down the problem and find a solution, as the Knowledge Base searches Incident tickets with an exact match of the criteria.

To begin, consider doing a shallow search first to find as many solutions as possible. Fill in the **Description** field of the Incident ticket, then search for a solution. From there you can narrow your search by filling in some of the linked fields within the Knowledge Base form, helping to narrow your search.

- Category
- Subcategory
- Product Type
- Problem Type
- Device
- Company
- Location

For this example, we'll do a narrow search, beginning with a brief description of the problem.

To find a solution while creating a new Incident Ticket:

1 Type a brief description in the **Description** field then choose **Options**>**Find Solution** (Figure C-5).

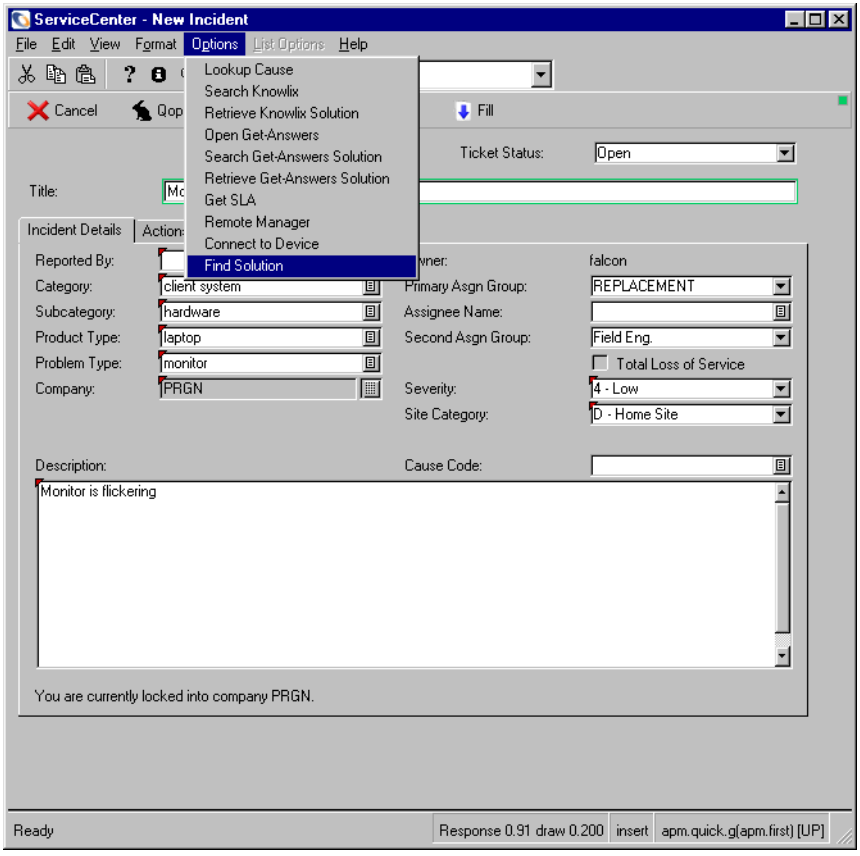


Figure C-5: Finding a solution

2 Click **Search**.

A QBE list of IR Query solutions displays (Figure C-6).

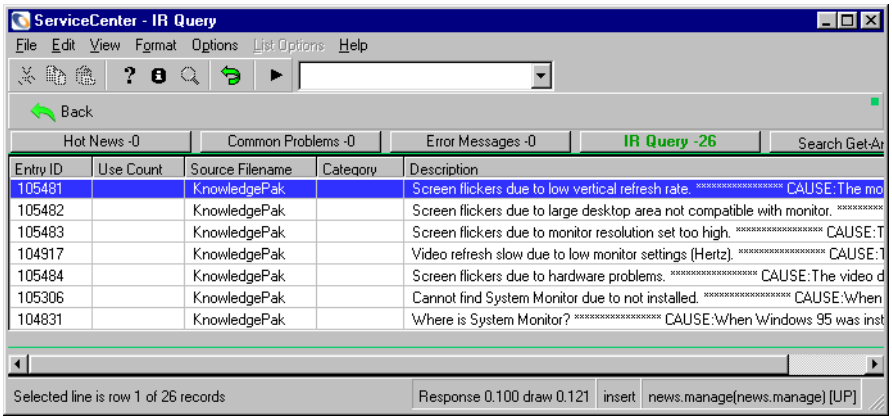


Figure C-6: QBE list of IR Query solutions

At the top of the window are five buttons that contain diagnostic aids or possible solutions. They are:

- Hot News
- Common Problems
- Error Messages
- IR Query
- Search Get-Answers

Note: If the search finds no matching records, blank out the fields below the Discover Option structure and perform a broader search.

3 To view the first record, double-click the entry. The first entry in the list displays in the form.

4 To view another record in the list, double-click the entry. (If you are not in Record List mode, click **Back**.)

5 When you find a solution, choose **Options>Use Resolution.**

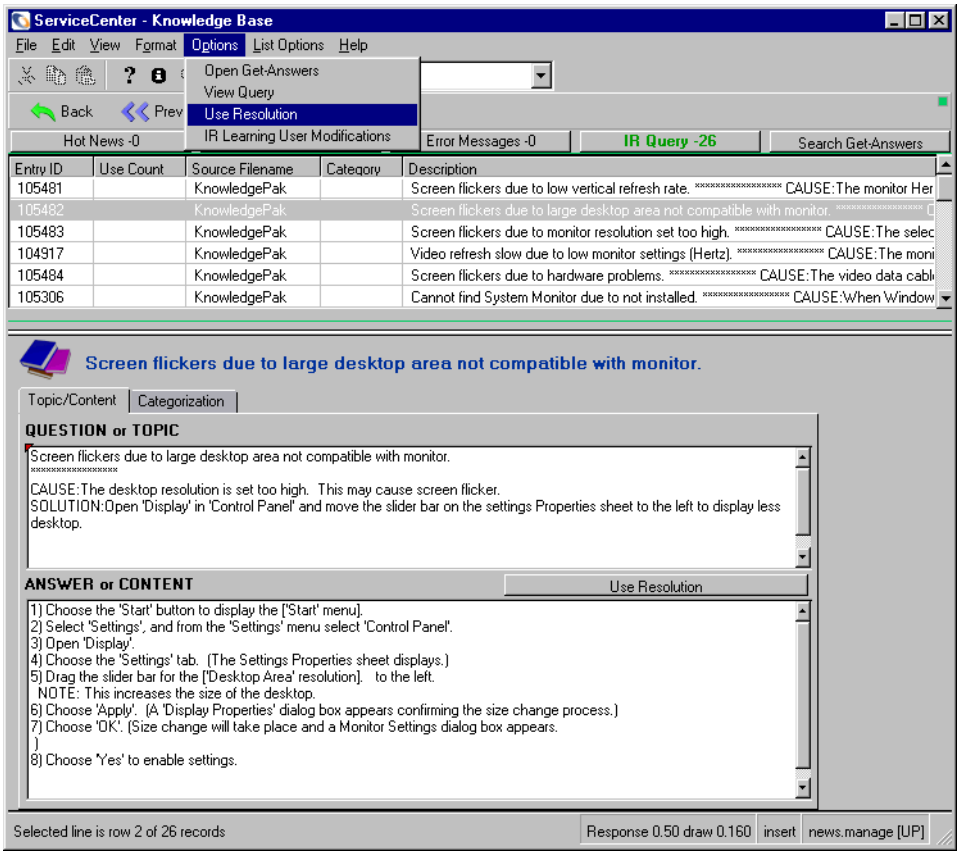


Figure C-7: Selecting a Resolution

Selecting **Use Resolution** does two things:

- It allows the help desk analyst to use a known solution.
- It begins a process whereby the Knowledge Base learns from the resolution being used. See *Adaptive Learning* on page 573 for more information about how the Knowledge Base stores knowledge.

6 Enter any pertinent information in the Confirm Learning Source Text box to help build the Knowledge Base entry (Figure C-8 on page 572). See *Using a Resolution* on page 573 for more information on using a resolution.

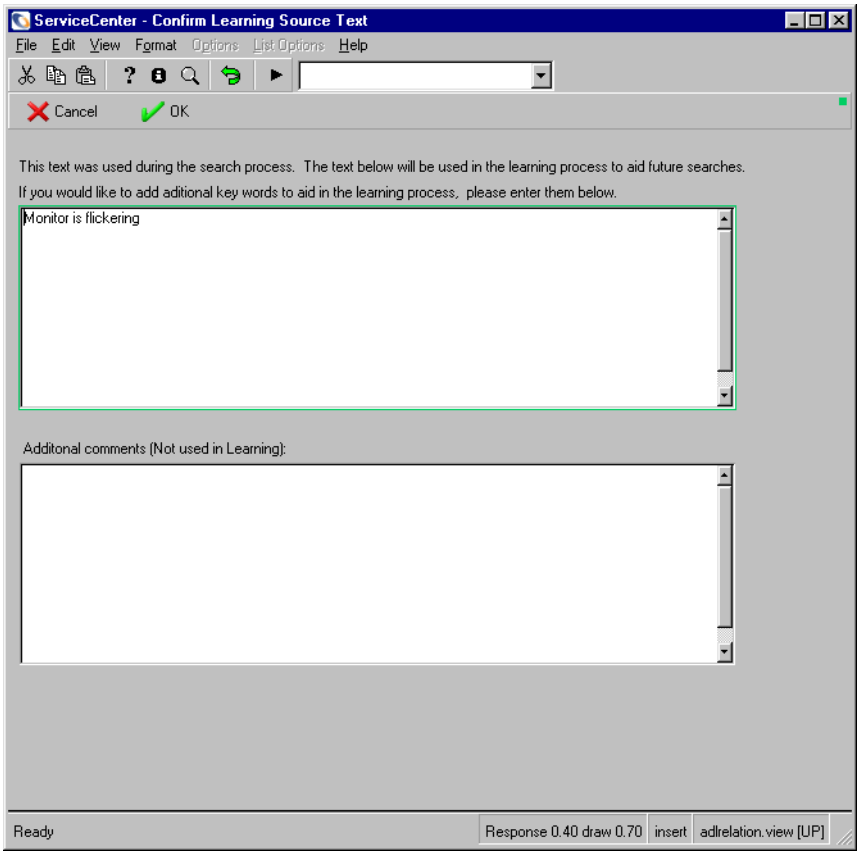


Figure C-8: Confirm learning source text for the Knowledge Base

7 Finish opening the Incident ticket.

Find Solution - Options

Option	Description
Reselect All	Refreshes the query record list displayed in the queue.
Modify Query	Returns to the Find Solution - Knowledge Base menu.

Using a Resolution

When a help desk analyst chooses to use a solution from the QBE list, this helps to do two things. Firstly, a solution is found to help solve the reported problem in the Incident ticket and second, choosing and using the resolution from the query list begins to teach the Knowledge Base about how a particular problem can be solved.

When a help desk analyst decides to use a suggested solution while in the Knowledge Base, selecting the **Use Resolution** fills in the details of the solution from the Knowledge Base in the Actions/Resolution tab of the Incident ticket.

If the selected resolution later fails, you may go back into the Knowledge Base and choose a different solution. When a new solution is found, choose **Options>Use Resolution** and the details of the new resolution are stored in the Incident ticket as a valid solution in the Actions/Resolution tab. The Knowledge Base then learns from the new resolution used for the reported problem.

Adaptive Learning

When a resolution is used to resolve a reported problem within an Incident Ticket or a Call Report, it begins the process of building the Knowledge Base with learned solutions to reported problems. There are two options to be used when selecting to use a resolution.

1 Confirm the text to be used in the reported problem that is stored in the Knowledge Base. This helps the Knowledge Base to learn what problems are related to the resolutions used, so that the solution list can contain the knowledge item the next time the same or a similar problem is reported.

The help desk analyst or Knowledge Engineer can do this by modifying the text of the problem and adding any extra necessary comments that help the Knowledge Base identify problems to particular resolutions (Figure C-8 on page 572). The more the same reported problems are used for selected resolutions, the more weight the resolution carries in regards to hierarchy in the QBE list presented in future searches. The Knowledge Base learns what resolutions work best for reported problems.

2 A Knowledge Engineer has the ability to fine tune the relationship between the solution and the problem. With this capability, a Knowledge Engineer uses this option to help build the reported problem in the Knowledge Base.

The Knowledge Engineer can select **Options>IR Learning User Modifications**. Once in this form (Figure C-9 on page 574), the Knowledge Engineer builds the reported problem in the Knowledge Base by adding and modifying terms within the Knowledge Base for this entry.

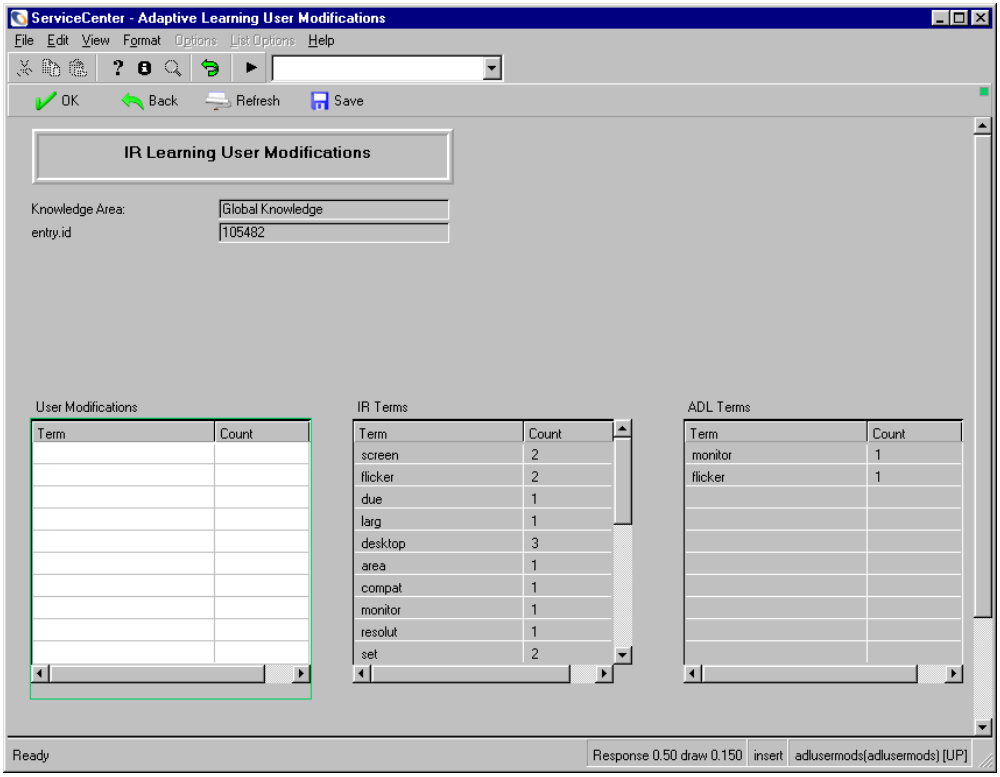


Figure C-9: Knowledge Engineer fine tunes the relationship between the solution and the problem

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