



# **Siebel Medical Handheld Guide**

Version 7.8

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# 1

## What's New in This Release

### What's New in Siebel Medical Handheld

Table 1 lists descriptions of the changes made to this version of the documentation to support Release 7.8 of the software.

Table 1. What's New in Siebel Medical Handheld, Version 7.8

Topic	Description
<a href="#">"Configuration Guidelines for Siebel Handheld" on page 20</a>	Revised and expanded the general guidelines, including screen and view design, for configuring Siebel Handheld applications.
<a href="#">"Performing Setup for Initial String Translation" on page 33</a>	Revised setup procedure for allowing translation capability in Siebel Handheld applications.
<a href="#">"Configuring Signature Capture Capabilities in Siebel Handheld" on page 38</a>	Revised and expanded this topic with information on enabling signature capture, signature display, and the Signature Capture applet control user properties.
<a href="#">"Creating Siebel Handheld Views" on page 49</a>	Revised procedures for creating new views in the Siebel Handheld applications and adding those views to a user's responsibilities.
<a href="#">"About Thread Throttling" on page 53</a>	Added new topic describing the method for allowing the maximum number of concurrent synchronizations.
<a href="#">"Configuring Application Settings for Siebel Handheld" on page 54</a>	Added new topic describing parameter settings in the Administration - Mobile screen.
<a href="#">"Administering Barcode Settings for Siebel Medical Handheld" on page 60</a>	Revised and expanded this topic with information on enabling barcode scanning, mapping a button for the Socket In-Hand Scan Card, and creating barcode definitions.
<a href="#">"Acting Upon Synchronization Errors in Siebel Handheld" on page 74</a>	Added descriptions of user options after encountering synchronization errors.
Data Filtering <a href="#">"Constructing Business Component and Business Object Filters" on page 88</a> <a href="#">"Examples of Default Business Object Declarations" on page 90</a>	Revised and expanded Data Filtering chapter with examples of business component filter syntax, business object filter syntax, and default business object declarations.

Table 1. What's New in Siebel Medical Handheld, Version 7.8

Topic	Description
Logging Levels <a href="#">"Configuring Direct Server Sync Logging Levels" on page 98</a> <a href="#">"Configuring Companion Sync Logging Levels" on page 99</a>	Added information on Logging Level parameters and how to configure them.
<a href="#">"Providing Synchronization Security with Secure Sockets Layer" on page 101</a>	Added information on securing the synchronization data stream by using Secure Sockets Layer (SSL).
<a href="#">"Editing the Handheld Application Installation Configuration File" on page 102</a>	Revised and expanded this table of setup.ini parameters and their descriptions.
<a href="#">"Changing the SyncURL on Siebel Handheld Devices" on page 108</a>	Updated information on using SyncURL to allow communication between the handheld synchronization client and the handheld synchronization server.
<a href="#">"Preventing Synchronization Transaction Conflicts with Siebel Handheld" on page 113</a>	Revised the information on Extended Pick processing and handling Insert Failure processing.
<a href="#">"Using Companion Synchronization with the Handheld Client" on page 134</a>	Revised information on performing Companion Sync, including Integrated Sync.
<a href="#">"Adding Quote Items in Medical Handheld" on page 162</a> <a href="#">"Adding Order Line Items in Medical Handheld" on page 164</a>	Revised information on pricing functionality when adding line items to quotes and orders.
<a href="#">"Companion Sync Checklist" on page 190</a> <a href="#">"Direct Server Sync Checklist" on page 191</a>	Revised troubleshooting information to help users determine why or when a synchronization has failed.
<a href="#">"Log Files" on page 192</a>	Revised this section on logs and output files to include information on logging Siebel Handheld synchronization errors.
<a href="#">"SQLTrace" on page 194</a>	Added information on enabling and using SQL tracing.
<a href="#">"PrinterType" on page 229</a>	Revised the list of supported printers for Siebel Handheld.

# 2

## Overview of Siebel Medical Handheld

This chapter includes the following topics:

- [“About Siebel Handheld” on page 13](#)
- [“Overview of Siebel Handheld Synchronization” on page 14](#)
- [“Siebel Handheld Synchronization Methods and Architecture” on page 14](#)
- [“Overview of Siebel Handheld Client Application Configuration” on page 15](#)

### About Siebel Handheld

Siebel Handheld provides a focused subset of functionality to that of the Siebel Web Client. The Siebel Handheld Client differs from the Siebel Web Client and the Siebel Mobile Web Client in that it uses a selected subset of views, accommodates smaller screen sizes, and has a reduced memory capacity. For a list of functional differences, see [Chapter 3, “Application Development.”](#)

Some features that are available on the Siebel Mobile Web Client are not available on the Siebel Handheld. Scripting and Siebel engines (for example, Pricing and Reporting) are not supported on the handheld. For a list of features that are not supported, see [“Unsupported Features for Siebel Handheld” on page 18.](#)

Some supported features of the Siebel Handheld client are as follows:

- **Application Development with Siebel Tools.** Siebel Handheld applications can be configured in Siebel Tools using the Web Applet Designer. You can take your existing Siebel application and use this as the basis for the Siebel Handheld application, or you can create a new application by using the Siebel Tools application shipped on the Siebel Handheld application DVD. See [Chapter 3, “Application Development,”](#) for more information.
- **Data filtering.** Filtering allows you to specify a subset of data to be used on the handheld device. Filtering is an important feature of a Siebel Handheld deployment because of the relatively large size of the average enterprise database in comparison to the relatively limited memory capabilities of handheld devices. It is important that you allocate sufficient time in the project plan to create and test the handheld filters. See [“Application Development” on page 17](#) for more information.
- **Installation options.** The Siebel Handheld application can be installed on Windows-powered devices in one of two ways. The first is to create a partnership between a desktop or laptop PC and the handheld device using Microsoft ActiveSync. The second is to install the Siebel Handheld application from external media, for example, a Cabinet (CAB) file. Handheld patches can be remotely deployed using PatchAgent. For more information, see [Chapter 8, “Installing the Handheld Application.”](#)

- **Patch Updates.** Siebel Handheld automatically applies the latest software patches to the handheld device when needed. Companion Sync allows users to Synchronize the Handheld Database to the local database on Companion PC and invokes Siebel Remote to synchronize the local database with the server database.

PatchAgent automates the deployment of patches to handheld devices as part of the synchronization process. For more information on PatchAgent, see ["Installing the Siebel Handheld Application from External Media" on page 108.](#)

- **Backing Up and Restoring Data.** The Siebel Handheld application provides database backup functionality. A database restore utility is also included with the application. See ["Enabling Handheld User Database Backup" on page 105](#) for details.

## Overview of Siebel Handheld Synchronization

The Siebel Handheld Synchronization (Sync) client synchronizes data between the Siebel Handheld database and the Mobile Web Client database or server database. The synchronization process does the following:

- Updates the Siebel server database with changes made to the Siebel Handheld database
- Updates the database on the handheld device with changes made to the Siebel server database
- Downloads metadata changes, such as object definitions for new or modified screens or views
- Allows users to select filters to limit the amount of data that is downloaded
- Automatically applies the latest software patches to the handheld device when needed

## Siebel Handheld Synchronization Methods and Architecture

The following methods can be used to synchronize data on the handheld device with data in the Siebel server database: Companion Sync (CS), Direct Server Sync (DSS) and Direct Server Sync via Proxy (DSSvP). The architecture of these methods is discussed in the following sections.

### Handheld Synchronization

A Handheld synchronization server component run on the Siebel application server can accept concurrent synchronization requests from multiple synchronization clients. When connecting directly to a server, the Siebel Handheld Sync client synchronizes its data directly to a server database. Companion Sync allows users to synchronize the Handheld Database to the local database on a companion PC device and invokes Siebel Remote to synchronize a local database with the server database.

In Direct Server Sync mode, the Siebel Handheld Synchronization client uses the HTTP(S) protocol over a network connection to communicate with the handheld synchronization server. Users should configure their handheld devices for communication over the desired network.

A companion synchronization server runs on a companion personal computer with a Mobile Web Client installation and supports synchronization with a data source specified in a client configuration; the database resides on the companion PC.

## Companion Sync

Companion Sync allows users to synchronize the Siebel Handheld application and database with a Siebel Remote database on a Mobile Web Client.

Microsoft ActiveSync is used to connect the handheld device and the companion PC through a serial or USB connection. The user launches Siebel Handheld Sync from companion PC or the device. The user can change the default filters using Siebel Handheld Sync.

## Direct Server Sync

Direct Server Sync allows users to synchronize their Siebel Handheld application and database directly with the Siebel server. The user connects the handheld device to the Siebel application server through a network connection that uses the HTTP protocol. The connection runs through a IIS Web server to the application server, where the Sync server components are installed and running.

## Direct Server Sync via Proxy

Direct Server Sync via Proxy (DSSvP) allows users to synchronize their Siebel Handheld application and database directly with the Siebel server. The user connects the handheld device to the Siebel application server through ActiveSync and the network connection established by the companion PC. The connection runs through a IIS Web server to the application server, where the Sync server components are installed.

# Overview of Siebel Handheld Client Application Configuration

The following provides an overview of the configuration process of the Handheld client. Complete the following steps to configure your handheld client application.

### ***To configure the Siebel Handheld client***

- 1** Define the user functionality.

Determine which user interface elements (such as screens, views, toolbars, applets, find, and help) will be necessary for your Siebel Handheld Client end users. For more information, see ["About Defining User Functionality in Siebel Handheld" on page 20](#).

**2** Configure the Siebel Handheld Client user interface.

The process for configuring user interface elements in the Siebel Handheld Client is the same as that for other Siebel clients. For more information, see ["Configuring User Interface Elements in Siebel Handheld" on page 25](#) and *Configuring Siebel Business Applications*.

**3** Identify all eScript or VB script.

Siebel Handheld applications do not currently support scripting, including eScript or VB script. Scripting used in your Siebel application may conflict with your Siebel Handheld application configuration.

**4** Compile the new configuration.

For more information, see ["Compiling the Siebel Handheld Application" on page 33](#).

**5** Test the new configuration.

Test the configuration, repeating the previous steps, to address any configuration errors.

After completing the Siebel Handheld Client configuration, you are ready to install it on the handheld devices. To install the Siebel Handheld configuration on a handheld device, see the instructions in ["Installing the Siebel Handheld Application" on page 119](#).



# 3

## Application Development

This chapter includes the following topics:

- "Overview of Siebel Handheld Architecture" on page 17
- "Unsupported Features for Siebel Handheld" on page 18
- "About Defining User Functionality in Siebel Handheld" on page 20
- "Configuration Guidelines for Siebel Handheld" on page 20
- "About Creating Siebel Handheld Projects" on page 22
- "Designing Screens and Views for Siebel Handheld" on page 23
- "Configuring User Interface Elements in Siebel Handheld" on page 25
- "Scripting in the Siebel Handheld Client" on page 32
- "Compiling the Siebel Handheld Application" on page 33
- "Configuring Printing from the Siebel Handheld Application" on page 35
- "Configuring Signature Capture Capabilities in Siebel Handheld" on page 38
- "Testing the Siebel Handheld Application" on page 45

### Overview of Siebel Handheld Architecture

The process for configuring a Siebel Handheld Client has a few differences, described in this chapter, from the process for configuring other types of Siebel clients.

**NOTE:** Readers should familiarize themselves with the Siebel client configuration process described in *Configuring Siebel Business Applications* before attempting to configure the Siebel Handheld Client.

The five layers in the Siebel Handheld architecture are comparable to those used on the Siebel Web Client:

**Application layer.** The application layer starts and closes the application.

**User Interface layer.** The user interface layer renders the display and interacts with actions of the user.

**Object Manager layer.** The object manager layer provides a consistent object behavior and interaction between all business objects within the application.

**Data Manager layer.** The data manager layer maintains an object-oriented abstraction of the native data stored in the data repositories for the benefit of the object manager.

**Database layer.** The database layer includes the data that Siebel Handheld users access.

Your Administrator configures an application on the Siebel client using Siebel Tools and compiles the Siebel repository (.srf) file. During the synchronization process, information specific to the Siebel Handheld Client is extracted from the Siebel repository file. This information is used to create a repository metalanguage (.rml) file, which is downloaded to the handheld device.

The repository metalanguage file contains the layout information for the handheld device but not the database layer. The database layer is generated in the transport file called dbfile.txt, which is downloaded and imported to the handheld database (siebelDB.sdf).

For more information on Siebel Tools, see *Using Siebel Tools*.

## Unsupported Features for Siebel Handheld

The differences between configuring user interface elements for the Siebel Web Client and the Siebel Handheld Client are shown in [Table 2](#).

Table 2. Configuring Siebel Client User Interface Elements

Client	Siebel Tools	SWT Template Files	Specialized Algorithms
Siebel Web Client	Yes	Yes	No
Siebel Handheld Client	Yes	No	Yes

The following are not supported in Siebel Handheld applications:

- The following applet types are not supported:
  - Chart
  - Explorer
- Group boxes are not supported. See [“Group Boxes” on page 26](#) for more information.
- Alarm Manager is not supported. Therefore, if an alarm check box is added to an applet and the check box is selected, no alarm sounds.
- The base time zone is determined by the system settings on the server and cannot be changed on the handheld device.
- Alphabet tabs are not supported.
- Scripting is not supported. However, any scripts on the business components will be executed during synchronization.
- Siebel Workflow is not supported.

See the following topics which outline, more specifically, other unsupported features.

## Multi-Value Groups (MVG)

The Multi-Value Group applet is not supported on the Siebel Handheld Client; however, the Multi-Value Group relationship is supported. The Multi-Value Group (MVG) control button does not appear on fields in Siebel Handheld Client applications. Instead, MVGs can be implemented as parent-child views. As a result, MVG fields are not editable within the parent record. In the Siebel Web Client, addresses of accounts are added, deleted, or edited through the Business Address MVG applet. However, in the Siebel Sales Handheld Client, these functions must be done through a Business Address child applet with an Account applet as its parent.

On the handheld device, all MVG fields are displayed as read-only, with the primary record visible. The first record will be displayed if the primary record is not specified. If you have an application or business requirement that requires the user to view or update all the records in the MVG, you must configure a separate view for that MVG. For example, the Address field in the Accounts or My Accounts view is an MVG. In the Siebel Handheld Client that field is read-only and displays the primary record. In order for the handheld user to see and update the addresses, the new Address view is configured in Siebel Tools. This new Address view is visible in the Show drop-down list.

## Functions

Siebel Handheld applications support most of the calculated fields and operations used in the Siebel Web applications with a few exceptions. See [Table 3](#) for a list of the unsupported functions.

Table 3. Unsupported Functions

Function Name
BCHasRows
DockingNodeId
DockingNodeName
DockingNodeRoutId
EAILookupExternal
EAILookupSiebel
EXISTS
GetHQInstanceId
GetHQInstanceName
GetNumBCRows
GetProfileAttr
GetXAval
IsDocked
LanguageName
LocaleName

Table 3. Unsupported Functions

Function Name
LookupMessage
LookupTranslation
NOT
RepositoryId
RepositoryName
RowIdToRowNum
ToolsLanguage

The NOT key word is not supported on Booleans. Use the != operator instead. For example, "Active" != "Y".

The RowIdToRowNum function is supported differently in the handheld applications than in the Web applications. In Web applications, RowIdToRowNum converts a row Id to a numeric value. In the handheld applications, the row ID itself is returned.

## About Defining User Functionality in Siebel Handheld

The first step in configuring a Siebel Handheld Client is to determine which user interface elements are necessary. Siebel Handheld Client users have different requirements from Siebel Web Client users. Keep in mind the differences in display size, memory capacity, and input methods between handheld devices and larger computers, such as desktop computers.

The goal is to create applications that are easy for your end users to use and which take advantage of the strengths of the handheld device platform. Because of processing speed, memory limitations, and form factor differences, you should only include those user interface elements that are necessary for users to complete their job responsibilities.

## Configuration Guidelines for Siebel Handheld

There are a few general guidelines you should bear in mind when configuring for the Siebel Handheld application. Use these guidelines when you design any new objects for the Siebel Handheld Client. This approach facilitates a logical separation of the Siebel Handheld Client user interface elements from the Siebel Web Client user interface elements.

- Identify User Activities
  - To conserve memory (and thereby improve performance) and ease navigation, identify business processes that are required by end users and develop applications that support these processes.

- If more than one type of user needs a Siebel Handheld Client application, it is preferable to divide the application into multiple responsibilities rather than give all possible users access to all available screens and views. Responsibilities are fully configurable by the application developer.
- Do not include additional functionality that is not required to reside on the device.
- Limit the number of screens and views
  - Keep the number of views in your application to 30 or fewer. Determine critical business processes that the handheld will support and only pick the views that are necessary and are compliant with your business requirements.
  - Limit the number of views within a screen to 12 or fewer to keep the View drop-down list concise.
  - Limit the number of screens to 6 or fewer to keep the Screen drop-down list concise.
  - Keep screen names to about 15 characters or fewer, so that they fit in the Screen drop-down list. The number of characters is a general guide because characters vary in width.
  - Keep view names to about 30 characters or fewer so that they fit in the View drop-down list. The number of characters is a general guide because characters vary in width.

- Limit the number of applets for each view

Design each view so that it has one or, at most, two applets. Limiting the number of applets enhances performance, and enriches the user experience.

**NOTE:** Some views contain three applets. Use the toggle button to navigate between the two child applets.

- Limit the number of columns and fields for each applet to minimize scrolling

Consider the following when designing your applets:

- Design applications that contain as few screen and view hierarchy levels as possible. In a Web-based application, you may have views with many applets, and the user toggles between the applets. However, for handheld applications, create more views with fewer applets to allow users to quickly find information with a minimal amount of toggling.
- Include the most important fields and columns that a user needs to see at a glance before scrolling. For example, if you have a form applet that is a parent, include only needed fields to avoid scrolling.
- If you are using a list applet, determine how wide it needs to be.
- Design each applet so that it only contains columns and fields that are required for end-user tasks.
- Consider moving required and editable fields into visible area of the applet where users can enter data and would not have to scroll. Because there is less screen space on a handheld device than on a laptop or desktop, the most important data should be immediately visible.
- The Date Column can be formatted to show only the date instead of Date and Time where Time is not relevant. This saves the user from having to scroll.
- To minimize horizontal scrolling, limit the number of columns displayed in a list applet to no more than ten.

- There is no limit on the number of fields in form applets of single-applet views. However, to minimize scrolling, keep the number of fields to 20 or fewer.
- Use a form applet for the parent for each parent-child view.
- In a multi-applet view, limit the number of fields in form applets to five or fewer. Add additional fields only if the field width is short. For example a check box field.
- Reduce the number of fields if the fields are multi-line, for example, a Comments box that contains three lines of text.
- Do not include read-only check boxes in form applets. It is very difficult for users to discern that the check box is not editable.
- Do not add pick applets or set the Runtime property to true for Read-Only fields that have a picklist value associated to them. This will improve overall extraction time, synchronization time and dbfile.txt file size since the process will not be forced to extract all the picklist values for these fields.
- Keep query names to about 15 characters or fewer, so that they fit in the Queries drop-down list. For example, North American Organization is too long for a query name, so you should change it to a shorter name, such as N. American Org. The number of characters is a general guide because characters vary in width (for example, W is wider than i).
- For each screen, create a single-applet More Info view. Create this applet as a form applet. For example, for the Contacts screen, create a More Info view that has the Contacts form applet only.
- For each screen, create a view called My \* or All \* as a single list applet view. For example, for the Activities screen, create a My Contacts view that has the Contacts list applet only.
- Design Data Filters
  - Limit the size of the dbfile.txt file to less than three megabytes (MB). The RDBMS on the handheld device is approximately three times the size of dbfile.txt. If the data files are so large that they cannot be imported into the database with the available memory, users cannot successfully synchronize their data. See [Chapter 5, "Data Filtering"](#) for information on how to design data filters to limit the amount of data that is synchronized to the handheld.
  - When working with assessment creation functionality, you need to name your templates in such a way that they will filter only the needed templates that will be downloaded to the device. Without properly setting up filters, all templates will be downloaded to the device.

## About Creating Siebel Handheld Projects

The Siebel Handheld projects appear in the list of projects in Siebel Tools; when Project is selected in the Object Explorer, the list of projects is displayed in the Object List Editor.

Use a naming convention that allows you to easily identify applications, screens, views, and applets belonging to a particular Siebel Handheld application. This allows you to locate all the object definitions in a Siebel Handheld application by querying on the name in the Object List Editor. For example, all of the Siebel Handheld Client screens, views, applets, toolbars, and menus use either an SHCE prefix (for example, SHCE Sales Account List view) or a CE suffix. Use the Object List Editor to query for views that contain the prefix SHCE or the suffix CE; doing so displays all of the Siebel Handheld Client views.

If you create a new Siebel Handheld application, create a new suffix or prefix to identify the name of the application and each screen, view, and applet name. For example, you could use PPC\_SHCE for an application.

## Designing Screens and Views for Siebel Handheld

Each view in a Siebel Handheld application can display a maximum of two applets at a time, regardless of the number of applets in the view. If there are more than two applets in a view, the user can navigate to additional applets by toggling.

### Screen Allocation

The amount of screen space available for applets is determined by the type of applets in the view. Two applets are stacked above one another. A parent form applet in a two-applet view displays multiple fields on a screen. Users use the scroll bar to navigate. The form applet dynamically resizes if there are fewer than five fields and, therefore, does not waste screen display space with empty lines. The maximum number of fields that are displayed at one time is configurable by setting the Max Parent Applet Size preference in the User Preferences dialog. See ["Setting User Preferences in the Siebel Handheld Application" on page 131](#) for more information on this user preference.

### Toggling Between Multiple-Applet Views

The Siebel Handheld Client application displays up to two applets at one time. If the view has only one applet, the applet takes up the entire display area. For views with two or more applets, the first two applets in the view are displayed, and the user toggles to see the other applets. The first applet is always displayed and the second applet changes as you toggle.

By default, the user toggles by choosing the View > Toggle menu item. In addition, it is recommended that you provide a toggle button as a visual cue to the end user that there are additional applets. Add a toggle button to each applet except the first applet. Identify the button with a Toggle caption and set `methodInvoked` to `ToggleApplet`.

### Drill-Down Only Views

Some views may be drill-down only views—that is, they can only be accessed by navigating from another view. These views should not be accessible through the Show drop-down list. However, when the end user navigates to the view, the view title appears in the Show drop-down list. To configure a drill-down only view, set the view title as you would for any other view and set the `ScreenMenu` property to `FALSE`. See *Configuring Siebel Business Applications* for more information.

## Applet Focus Behavior

When navigating between views, there may be instances when you need to override the default behavior for giving focus to an applet

The GotoView method is used to navigate from one view to another. A button control is added to the applet in the view you want to navigate from, the button's methodInvoked property is set to GotoView and the button's View property is set to the view that is to be created. When the GotoView method is executed, it builds the specified view. If the view includes a parent and child applet, GotoView gives focus to the child applet. This is the desired behavior in most instances when you are simply navigating from one view to another.

If the desired behavior is to navigate to a new view and, additionally, to create a new record, then you must use the GotoViewNewRecord method. This method calls two methods; first it calls GotoView, and then it calls NewRecord, which creates a new record in the new view.

In some instances the default behavior of these methods does not produce the intended behavior. For example, in the Orders view of the Service Requests screen, when you tap the Create New Order button, it takes you to the Order Details view, which contains a parent form applet (Service Request Order) and a child list applet (Service Order Entry Line Item). In this instance, when the Create New Order button's GotoViewNewRecord method is executed, you want a new order to be created. However, the default behavior is to give focus to the child applet rather than creating a new record in the parent applet. Therefore, you need to override the default behavior of GotoView with the control user property OverrideDefaultApplet, and set the value to the applet that you want to give focus. The valid values are 0 (parent) and 1 (child). For example, if you create a button labeled "Create Service Request Order," you would define user properties shown in [Table 4](#):

Table 4. User Properties

Name	Value
View	SHCE Service Order Line Items View
OverrideDefaultApplet	0

## Views with Associated Print Templates or Reports

Print templates are text files that you design and create for printing. After creating a print template, you associate it with an applet. When an end user chooses to print from a view, the print template that is associated with the applet is automatically selected and used for printing. Follow these guidelines when creating print templates:

- Only one print template can be associated with an applet.
- The print template name for a particular display applet is registered in the Mail Template property in the Applet object associated with the applet.
- The template must be placed in the Templates directory.
- The template name that goes into the Mail Template property should not include a path name or extension. For example, if the full path of the template is \Program Files\Siebel Handheld\Templates\InvoiceTemplate.txt, you would enter only the root name InvoiceTemplate in the property field.



- The template file itself must have a .txt extension on the device. In the case of Siebel Medical for Handheld the provided print template is called: QuoteTemplate.txt.

For more information, see [Appendix E, "Print Configuration Settings."](#)

## Configuring User Interface Elements in Siebel Handheld

When configuring user interface elements on the Siebel Handheld Client, also consider the processing speed and memory constraints of handheld devices. The constraint on processing speed affects the performance of a handheld device. The performance of a handheld device is also related to the number of screens and views downloaded to the handheld device. Because handheld devices are not meant to provide the same functionality as larger devices, such as laptops, the number of screens and views must be kept to a minimum on the handheld device.

Due to size constraints on handheld devices, the Siebel Handheld Client displays user interface elements differently from the Siebel Web Client. Consider these differences when configuring the Siebel Handheld Client application. For example, Siebel Handheld Client does not support an alphabetical index.

### Configuring List Applets for the Handheld Client

You configure list applets and list columns for Siebel Handheld applications the same way you configure them for other Siebel applications.

#### Recommended Strategy for Configuring List Applets

The recommended strategy when configuring the Siebel Handheld Client is to use the list applets for record navigation and to rely on form applets to provide the record details.

The following are additional guidelines to follow when designing list applets:

- Configure specific list applets for your Siebel Handheld application, rather than reusing Siebel Web Client list applets.
- Remove all but the essential list columns. Because there is limited screen area to display list columns, omit all unnecessary columns to minimize horizontal scrolling.

You may either remove the columns from the application or set the Show in List property on the column to FALSE. These two methods are different in the following ways. If the columns are removed from the application, these data won't be downloaded to the handheld device, which keeps the handheld data and a minimum and, in turn, optimizes synchronization performance. If the Show in List property on the column is set to FALSE, the data is still downloaded to the device but is not shown by default. This second approach, though without the synchronization optimization benefit, does allow convenience for the user who wants to customize visible columns. You should take these concerns into account when setting up users.

- Reorder the remaining list columns so that the most frequently used columns are furthest to the left.

- Reduce the default width of the list columns so that more columns can be viewed at one time.
- Use hyperlinks to ease navigation by enabling users to drill into a form applet.

These changes can minimize the amount of horizontal scrolling and column reordering that users must do. Limiting the number of list columns to those that are essential minimizes the amount of data downloaded to the device, resulting in faster synchronization times and more economical use of device memory.

**NOTE:** All required fields on form and list applets appear with an asterisk (\*). If an administrator specifies that a field is required, the field appears with an asterisk in the user interface.

Use Siebel Tools to modify, or rearrange List Columns. For more information on the List Column options, see *Configuring Siebel Business Applications*.

## Configuring Form Applets for the Handheld Client

The handheld uses a specialized algorithm to format and display form applets. Due to the display limitations on the device, only one pair of label and field controls are displayed on each row of the form, regardless of the layout shown within Siebel Tools.

### Layout Sequence

When configuring for the handheld device, the Applet Web Template Items in the Applet Web Template determine the controls that appear on a form applet. The layout of form applets on the handheld device is determined by the HTML Sequence field set on control objects.

The HTML Sequence field determines the screen layout of a handheld device. Controls are ordered from top-to-bottom based on their HTML Sequence property values. Label and control pairs that do not fit on the same line as other label and control pairs wrap to the next line.

### Labels

Keep field labels in applications short (approximately 12 characters or fewer, depending on the character width). Use abbreviations where possible. Labels that are too long are truncated.

### Group Boxes

Group boxes are not supported and are not displayed in form applets, even if they are added in the Web Applet Designer. Therefore, reword the field labels to include group box information if necessary. For example, you may have two group boxes on the form, one labeled Ship To and another labeled Bill To. Each group box includes a field named Address. Because group boxes are not supported, the Ship To and Bill To labels are lost, and two fields with the identical Address label remain. Therefore, you must rename the Address labels "Ship To Addr" and "Bill To Addr" or some other label that distinguishes them.

## Using Auto Pop-Up Lists in the Handheld Client

Sometimes when a user encounters a new view, he or she must perform an action, such as filling in a required field by selecting a value from a pop-up list. Rather than requiring the end user to tap the control to open the pop-up list, you can configure the view so that the pop-up list automatically opens when the end user gets to that view. To configure a pop-up list to open automatically, add the user property on the applet with Name set to AutoPopupField. Depending on the type of applet, this property is set differently:

- For list applets, set the AutoPopupField property to the Business Component field name.
- For form applets, set the AutoPopupField property to the name of the control.

## About Home Page Applets in Siebel Handheld

To configure a Home Page applet, create an applet that has controls of HTML Type Button only. Use the following guidelines in creating your Home Page applets:

- Set the MethodInvocation property of these controls to GotoView. Then add a user property for the control, and set the Name parameter to "View" and set the Value parameter to the view name.
- Set the Caption field.
- Set the HTML Sequence field according to the order in which the buttons are laid out on the device. The buttons appear on the Home Page applet of the handheld device, laid out in rows of three buttons.

## About Buttons in Handheld

Set the HTML Type field on buttons to Button, MiniButton, PushButton, or MiniButtonEditNew. All of these HTML Types map to the same button control on the handheld device.

Buttons with text labels on them are sized to the minimum width required to fit the text on the buttons.

**NOTE:** You cannot use scripting to augment the button functionality in handheld applications.

You may add buttons as long as the method invoked is supported by the class or superclass of the frame or business component. You may also remove buttons from an applet. Be careful when removing buttons because you may alter the behavior of your application in unintended ways. [Table 5](#) describes the behavior of buttons on the different screens. Use this table to guide your decisions about removing buttons from your handheld applications.

For more information of button functionality, see [Appendix C, "User Properties."](#)

Table 5. Button Functionality

Screen	View	Button	Button Functionality
Accounts	Views	Measurements	Goes to the Asset Measurements view.
Accounts	Views	Warranties	Goes to the Asset Warranties view.
Accounts	Views	Components	Goes to the Asset Sub-Components view.
Browser	Views	Check Substitute	Checks for substitute parts for the current part. Navigates to the Part Browser Substitutes view.
Cycle Count	Cycle Count Detail	Count Complete	<ul style="list-style-type: none"> <li>■ Updates cycle count record in the Cycle Count &gt; My Pending Cycle Count view.                             <ul style="list-style-type: none"> <li>■ Updates Status to Done.</li> <li>■ Updates End Date field with current date/time.</li> </ul> </li> <li>■ Calculates the variance between the cycle count and inventory.</li> <li>■ Creates inventory transactions to adjust inventory.</li> <li>■ Updates Inventory Location product Bucket fields and calculates usage.</li> <li>■ Makes Cycle Count Detail and Product Detail records read-only.</li> <li>■ Makes Cycle Count record read-only.</li> <li>■ Saves all records.</li> <li>■ Commits all inventory transactions associated with location which do not require approval.</li> <li>■ Navigates to Inventory &gt; Move Approvals view if any transaction requires approval (for example, part moves). Otherwise, navigates to Inventory &gt; Inventory Detail view.</li> </ul>
Cycle Count	Cycle Count Detail	Scan	<ul style="list-style-type: none"> <li>■ Enable barcode scanning.</li> <li>■ Navigates to the Scan Barcodes Form view.</li> </ul>

Table 5. Button Functionality

Screen	View	Button	Button Functionality
Cycle Count	My Pending Cycle Count	Start	<ul style="list-style-type: none"> <li>■ Updates cycle count record in the Cycle Count &gt; My Pending Cycle Count view.</li> <li>■ Updates Start Date field to the current date/time.</li> <li>■ Updates Status to In Progress.</li> <li>■ Navigates to Cycle Count Detail View for selected cycle count record.</li> </ul>
Cycle Count	My Pending Cycle Count	Usage	<ul style="list-style-type: none"> <li>■ Navigates to Inventory &gt; Inventory Detail View for the inventory location on which the Cycle Count record is associated to.</li> </ul>
Cycle Count	My Pending Cycle Count	Schedule	<ul style="list-style-type: none"> <li>■ Navigates to Calendar - Weekly View focused on current day.</li> </ul>
Inventory	Inventory Detail	Rollup	<ul style="list-style-type: none"> <li>■ Updates Inventory Location record:                             <ul style="list-style-type: none"> <li>■ Updates Last Roll Up field with current date/time.</li> <li>■ Aggregates Qty, Current Usage and Average Usage for each level in the hierarchy from the leaf level products up to the leaf level defined by the Rollup Level field for that inventory location*</li> <li>■ Displays Min and calculates Delta field for items in the hierarchy with Consignment Level = True.</li> </ul> </li> </ul> <p><b>NOTE:</b> You define Rollup Level field for that Inventory location through the Inventory &gt; Inventory Location &gt; More Info view. For information on setting up inventory locations, see <i>Siebel Order Management Guide</i>.</p>
Inventory	Inventory Location	Move	<ul style="list-style-type: none"> <li>■ Navigates to the Part Move view.</li> <li>■ Pre-populates fields in the Part Move view depending on where the move was initiated.</li> </ul> <p><b>NOTE:</b> The Move button is also available in the Cycle Count &gt; Product Detail view (drill-down only view), Cycle Count &gt; Scan Barcodes (drill-down only view), Inventory &gt; Assets view, Move &gt; Transaction view. Depending on where the Move button was clicked, the fields will be pre-populated based on information that is available on these views.</p>

Table 5. Button Functionality

Screen	View	Button	Button Functionality
Inventory	Move Approvals	Sign	<ul style="list-style-type: none"> <li>■ Pops up Signature Capture screen.</li> </ul>
Opportunities	Quotes	AutoQuote	<ul style="list-style-type: none"> <li>■ Generate Quote and Quote Items records based on the opportunity and products associated to the opportunity.</li> </ul> <p><b>NOTE:</b> For more information on AutoQuote functionality, please refer to <a href="#">"Using Auto Quote in Medical Handheld"</a> on page 160.</p>
Quote	Quote Items	Print	<ul style="list-style-type: none"> <li>■ Prints Quote report based on Quote print template.</li> </ul>
Quote	Quote Items	Toggle	<ul style="list-style-type: none"> <li>■ Toggles between Quote List applet and Quote Form applet to display details on discounts for the quote item record.</li> </ul> <p><b>NOTE:</b> For more information on AutoQuote functionality, please refer to <a href="#">"Using Auto Quote in Medical Handheld"</a> on page 160.</p>
Quote	Order	AutoOrder	<ul style="list-style-type: none"> <li>■ Generates Order and order Line Item records based on the quote and quote items for that quote.</li> </ul> <p><b>NOTE:</b> For more information on AutoOrder functionality, see <a href="#">"Creating Orders in Medical Handheld"</a> on page 163.</p>
Cycle Count	Scan Barcodes	Stop	<ul style="list-style-type: none"> <li>■ Disables barcode scanning.</li> <li>■ Navigates to Cycle Count &gt; Cycle Count Detail view.</li> </ul>
Cycle Count	Scan Barcodes	Clear	<ul style="list-style-type: none"> <li>■ Clears fields.</li> <li>■ Performs an undo operation for cases in which a cycle count record was created as a result of the scan.</li> </ul>

## About the Menu Bar in Handheld

The menu object definition in the Siebel repository that is implemented in handheld applications is named SHCE Generic. The default menu bar configuration for the Siebel Handheld Client includes the following menus: File, Edit, View, and Help. You may remove or rename menus on the menu bar, but you cannot add new menus. You may reorder the menu items by changing the Position property for the menu items. Generally, use the default menu bar configuration for all of your Siebel Handheld Client applications.

## About Toolbars in Handheld

This section describes how to configure the toolbar for your application.

Table 6 shows the supported toolbar functions.

Table 6. Supported Toolbar Functions

Toolbar Functions
Back, Forward
New Record
New Query, Execute Query
Next Record, Previous Record, First Record, Last Record
Minimize/Maximize
Delete Record

The default toolbar can be configured in Siebel Tools by configuring the SHCE Main toolbar object. SHCE Main is the main toolbar that is downloaded to the handheld device. If a toolbar named SHCE Main does not exist in your repository, a default toolbar, *Main*, is downloaded instead.

The SHCE Main toolbar contains the default buttons for the device: Back, Forward, New Record, New Query, and Execute Query. Change the order of the buttons on the display by modifying the Position property of the toolbar items. Remove a toolbar button by deleting it or making it inactive.

You can add additional default buttons to the toolbar by creating toolbar items whose Command property matches the name of an active bitmap in the SHCE Command Icons bitmap category. Do not add bitmaps to the SHCE Command Icons bitmap category because only those commands, which are already provided, are supported on the device. No additional commands are supported. You can remove a bitmap or make a bitmap inactive if you do not want it to appear in the Customize Toolbar dialog box.

You can change the bitmap for a toolbar by reimporting the bitmap from the SHCE Command Icons bitmap category.

An end user can personalize the toolbar by selecting View > Toolbar.

For more information on toolbars, refer to *Configuring Siebel Business Applications*.

## About the Status Bar in Handheld

The status bar is located above the toolbar. The status bar displays the status of an applet with focus, including the applet title and record item count (for example, Contacts: 1 of 13).

## About Hyperlinks in Handheld

Configuring a drilldown, or clicking a hyperlink or dynamic hyperlink in the Siebel Handheld Client, is performed the same way as with other Siebel clients. For more information on configuring drilldowns, see *Configuring Siebel Business Applications*.

## Scripting in the Siebel Handheld Client

The Siebel Handheld Client does not execute Siebel Visual Basic (VB) or Siebel eScript scripting.

The Siebel Handheld Client application runs Siebel VB or Siebel eScript scripts and specialized business component logic at synchronization time, rather than in real time on the handheld device. This has significant consequences in applets and controls, because scripts attached to applets and controls are ignored.

**CAUTION:** Be aware of the following additional issues with respect to scripts and validation:

- **Deactivating scripts.** Do not deactivate existing scripts in Siebel Tools to make the handheld device or the synchronization process accept data it is excluding. Errors may occur within the Siebel Web Client or elsewhere where these scripts are run.
- **Calls to user interface methods.** When a business component script makes a call to a user interface method (such as MsgBox), the script cannot be executed, and the record update, deletion, or addition is rejected during synchronization. Strictly speaking, a script attached to a business component should not interact with the user interface.

Any Siebel Visual Basic code should be restricted to the business component level. Applet-level Siebel Visual Basic will not execute and, therefore, should not be written for the Siebel Handheld Client application. As a substitute to using Siebel Visual Basic on the Siebel Handheld Client application, for real-time execution, use the following business component user properties:

- BC/Field Read Only Field...for making fields or business components read-only dynamically.
- Pickmap for fields on the picklist.

Do not use message boxes or prompts in the Siebel Visual Basic code used in conjunction with the Siebel Handheld Client application business components. If the business component is shared between the Siebel Handheld Client application and a laptop, use the following construct to determine if the code is being executed in real time on the laptop or during synchronization:

```
'ActiveViewName is only available when the script is called real time on the laptop
If (TheApplication.ActiveViewName<>"") then
MsgBox"....."
End If
```

- Business component level scripting will be executed during synchronization. Error handling may need to be enhanced if the business component is shared between the handheld application and the laptop.



## Compiling the Siebel Handheld Application

Compiling the repository for the Siebel Handheld Client is identical to compiling on the Siebel Web Client. For more information, see *Using Siebel Tools*. For deployment to production, always perform a full compilation. This assumes that you have organized all of your handheld object definitions in one project or a limited set of projects.

When you compile your application, a Siebel repository file (.srf) is created and put in the destination directory you specified during the compile procedure. Make this .srf file the source of repository information for the Siebel Handheld test client machine, defining all Siebel applications for that client, when you move it to your local \Siebel\objects directory.

It is strongly recommended that you make a backup of the existing .srf file in your local \Siebel\objects directory before overwriting it with the new one. That way, if you make an error or you want to revert to the original application, you have a backup that you can easily restore. Versioning for the repository is tracked, and if the .cfg, schema, or repository files have changed, the sync process will automatically rebuild the .rml and schema. For more information, see *Using Siebel Tools*.

## Installing and Setting Up End User Translation Functionality

End User Translation functionality provides you with the ability to translate the text strings within the Siebel Handheld application. The translation process should be undertaken during the development cycle and once completed your development team can then package the translated strings for distribution.

The translation process requires the generation of a file of strings from the handheld binaries which are then translated and distributed to the user base. This file, userstr.txt, containing the translated strings is then used to override the strings within the existing handheld binaries. Therefore, you will be required to build a copy of userstr.txt into the installation media for your handheld application.

The translation string file is version specific so you must repeat this process every time you upgrade your Siebel Handheld application.

## Performing Setup for Initial String Translation

In order to perform the initial string translation you must perform the following steps prior to installation:

### ***To setup Siebel Handheld application for initial string translation***

- 1 In the Handheld installation directory, add the following two lines to the setup.ini file  
[EndUserLocalization]  
UserDefinedLang=Y

**2** Install the Siebel Handheld application.

During application initialization and the subsequent startup, the file 'userstr.tmp' is generated within the ApplicationDataDirectory (by default this is \Program Files\Siebel Handheld). This file is generated upon startup whenever the UserDefinedFlag is set to Y within the handheld registry and an existing userstr.txt cannot be found.

**3** Copy the generated file over to the computer where you will be performing the string translation.

**4** Translate the strings as required and remove any untranslated strings from the file.

For example, given the following section of exported strings:

```
33872|HTML\  
33873|Tab delimited text file\  
33874|Export\  
33875|Format:\  
33876|Only Active applet\  
33877|All applets in view\  
33878|output file name\  
33879|Browse...\  
33880|And paste output to clipboard\  
33881|And open file\
```

Translate the required strings and remove any untranslated strings as follows:

```
33873|Archivo delimitado por tabulaciones\  
33874|Exportar\  
33875|Formato:\  
33876|Sólo el applet activo\  
33877|Todos los applets de la vista\  
33878|Nombre del &archivo de salida:\  
33880|Y pegar salida en el &portapapeles\  
33881|Y &abrir el archive
```

**NOTE:** Strings 33872 and 33879 were removed from the userstr.txt as they were not required to be translated.

**5** Save the file as userstr.txt in a UNICODE file format and then copy back into the ApplicationDataDirectory on the handheld device.

**6** After restarting the Siebel Handheld application, the translated strings are read from userstr.txt in place of the strings included in the handheld binaries.

## Distributing Translated Strings

Once you have generated and tested the userstr.txt file of translated strings, you should include this file in the installation media for the Siebel Handheld application.

### *To distribute translated strings*

Create a new language sub-directory named UserDefinedLanguage within the Siebel Handheld installation directory from which end user devices are installed and which contains the setup.exe.

This directory with the name UserDefinedLanguage will exist alongside the language sub-directories shipped with the application. The new userstr.txt file should be placed in this subdirectory.

Upon installation of the Siebel Handheld application, the custom file will be placed in the ApplicationDataDirectory of the destination device along with the usual handheld files.

## Configuring Printing from the Siebel Handheld Application

Users may print from any view in the application. However, they are not necessarily printing what they see on their screen. They may print a portion of the data they view or data that is not viewable at the time.

A print template defines the document that is to be printed. After the template has been defined, it must be associated with an applet in a view.

This section provides information on the following topics:

- Defining documents
- Designing print applets
- Configuring applets for printing
- Creating print buttons
- Creating print templates

## Defining Documents for Handheld

Defining documents for printing includes several steps:

- Determine the documents your users need to print.
- Determine the views from which they are most likely to print the documents.
- Lay out the document for printing.

Determining which documents users will need and the views from which they are most likely to print requires that you have a good understanding of the users' day-to-day work.

Whether the existing applets in a view include most of the required data or only a small portion is a secondary consideration. It is not likely that a printout of the existing applets, which are formatted for an electronic PDA interface, will provide an acceptable or usable printed document. In most instances, you need to create additional applets that are specifically used for printing data.

The printed document will be composed of several applets which are added to the view. The applets pull the data from the underlying business components. These applets, in turn, direct the data to the print templates discussed in [Appendix D, "Print Tagging Language."](#)

## Designing Print Applets for Handheld

The print template references applets associated with the view and is how you specify what data appears in the printed document. For information on print templates, see "[Creating Print Templates for the Handheld Application](#)" on page 38. As you design your applets, you should be aware of the print specifications of the printers used in the field. Portable printers typically print on two-inch or four-inch wide paper. You need to design your applets so that the data fits within the limits of the paper width. Keep your documents simple so that they work with different sizes of paper. The following are some guidelines to use when designing your applets to accommodate the smaller paper sizes.

### Form Applets

Data from only one business component can be displayed on each line in your document. When you design your form applets, keep in mind that you can display a maximum of two columns of data in form applets. You can specify that each column of data is preceded by an optional caption column. This means you can have up to four columns displayed in your document—two data columns and two caption columns. Alternatively, you may have no captions, and simply display one or two columns of data.

The ratio between caption and data columns is, respectively, 35 percent and 65 percent. This is a fixed relationship that cannot be customized in the template.

Limitations on multiple columns in printed output are largely hardware dependent. In printing 7 fields on a 40 column printer, physical limitations allow only 4-5 characters per field  $(40 - (7-1))/7 = 4.85$ . To print more than 4 columns, an 80 column printer is recommended. Generally, the capabilities of impact printers are lower than those of Thermal printers.

### List Applets

When specifying the width of a column, you can either specify it with a unit of measurement or as a percentage of the total page width. For example, you can specify that the first column is 20 mm, and the second column is 40 mm. If the width of the paper you print to is narrower than 60 mm, the column widths automatically adjust to fit the printable width as a proportion of the specified width. Therefore, the first column will always be 33 percent, and the second column will be 67 percent of the paper width. The minimum width for a column is 8 mm, which includes a 3 mm gutter margin between columns.

You can specify any number of columns in your list applet. However, if the width of the column is less than 8 mm, the application ignores the column and does not print it.

On narrow paper widths, data from a field may not all fit on one line. Data that does not fit can be specified, in the Applet tag, to wrap to the next line and keep wrapping until the data in that field is completely displayed. The printable width of the page is equal to the paper width minus the left and right margins ( $\text{PaperWidth} - [\text{LeftMargin} + \text{RightMargin}]$ ). These parameters are set in the setup.ini file. For more information on setting these parameters, see [Appendix E, "Print Configuration Settings."](#)

## Configuring Applets for Printing for the Handheld Application

Configure print applets as you would any other applet using Siebel Tools. In addition, set the following properties for each applet in the view.

- Set the HTML Popup Dimension value to 0x0.

The 0x0 setting hides the applet from the end user who should not see the applet that is used to generate the document. Exposing these applets would complicate a product that is tightly configured for an effective and efficient workflow on a small mobile device.

**NOTE:** For compatibility with previous versions, Siebel Systems continues to support the name, *Popup Dimension*, for this property. However, it is recommended that you use *HTML Popup Dimension*.

- Set the name of the Mail Template to be the name of the print template file. For more information on the print template file, see ["Creating Print Templates for the Handheld Application" on page 38](#). For more information on the Mail Template property, see ["Views with Associated Print Templates or Reports" on page 24](#).

## Configuring Print Buttons for the Handheld Application

While users can use the File > Print menu option to print a document, it is helpful to include a Print button on the applet to give users a visual reminder that it is possible to print from a particular view.

When you design your applets, keep the following in mind when deciding where to place the print button:

- Add the print button to the applet that is visible to the user. Do not add the print button to the print applet, which the user never sees.
- Consider what the desired behavior is when determining the placement of a print button.

For example, in a parent-child view, you may want to add the print button to the parent applet to ensure that the print button is always enabled. This is not necessarily true if the print button is placed on the child list applet. If there are no items in the list applet, the print button is disabled, and the end user cannot print from that view. If you only want the end user to print when there are list items, then placing the button on the child list applet is appropriate.

### To configure a print button

- 1 From Siebel Tools, add a control to the print applet and specify HTML Type = Button.

- 2 Set Method Invoked = Print.
- 3 Set the Display Name property of the button. Generally, this is set to Print.

## Creating Print Templates for the Handheld Application

Once you have identified and created the necessary views, you are ready to create print templates. A print template is a text file that includes instructions for printing a document. It specifies the data to be printed, document layout options, and text formatting. These instructions are specified using a print tagging language that is described in [Appendix D, "Print Tagging Language."](#)

# Configuring Signature Capture Capabilities in Siebel Handheld

You can configure the Siebel Handheld Application to capture, view, and print signatures. The following sections provide details on configuring signature capture:

- ["Enabling Signature Capture" on page 38](#)
- ["Invoking Signature Capture Dialogue Box and Display" on page 39](#)
- ["Signature Capture Dialogue Box and Signature Display" on page 39](#)
- ["Configuring Signature Capture in Activities More Info View in Siebel Handheld" on page 40](#)
- ["Adding a Signature Capture Button in Siebel Tools" on page 42](#)
- ["Signature Capture Applet Control User Properties" on page 43](#)

## Enabling Signature Capture

Enabling signature capture requires implementing the required supporting field and column definitions, adding a signature control to the applet and, if required, configuring an applet button through which the signature capture dialogue box can be invoked. A field can be configured as a signature control in any list or form applet. Multiple signature controls can be added to a single applet. Once captured, signatures are converted to an ASCII encoding data and stored with the Siebel database as ASCII text.

When enabling Signature Capture, the following basic configuration is required:

- The Business Component field mapped to the signature control should be of Type DTYPE\_NOTE
- The underlying Table Column on which the Business Component field is based on Physical Type LONG

- The Applet Control should have a Control User Property called "Signature" with a value "Y". The Control's HTML Type property should be set to "Field"

**NOTE:** The Applet Control by default does not redisplay the signature data if there is data in the underlying business component field. In this case, you will see the field as read only and will not be able to see the signature that was captured. To redisplay signatures, add another Control User Property called "Show Data" with a value "Y". With this additional configuration, the control is still read-only, but you will be able to see the signature that was captured. For a full list of User Properties available for configuring signature capture, see ["Signature Capture Applet Control User Properties"](#) on page 43.

## Invoking Signature Capture Dialogue Box and Display

There are two ways to invoke the Signature Capture dialogue box or Signature Display. By default, the basic configuration specified in the Enabling Signature Capture section allows you to invoke the signature capture dialogue box or display a signature using the (...) ellipses button.

You may also use the following basic configuration to invoke the Signature Capture dialogue box or display with the Applet Signature button.

- Create a new Control with properties HTML Type = MiniButton, Method Invoked = StartSignature
- Add a Control User Property to the MiniButton control to indicate the signature field in the business component (for example, the field that is being used to store signature in the business component on which the applet is based).

For examples, see ["Configuring Signature Capture in Activities More Info View in Siebel Handheld"](#) on page 40 and ["Adding a Signature Capture Button in Siebel Tools"](#) on page 42.

## Signature Capture Dialogue Box and Signature Display

The Signature Capture dialogue or display box consists of three controls in the client area: header, signature, and footer. A toolbar displays various buttons depending on the existence of signature data.

Initially, when signature data does not exist or has not yet been captured, the user sees a single line of text within the field control that reads Not Signed. Once the signature capture dialogue box or signature display is invoked, this message appears at the bottom of the screen. The Clear and Cancel buttons are also enabled, while the Accept button is disabled. Once the Signature area within the dialogue box is populated, the Accept button is automatically enabled. [Table 7](#) describes the functionality around these three buttons.

Table 7. Signature Capture Dialogue Box Buttons

Button	Description
Accept	Tap this button to commit the signature to the database.
Clear	Tap this button to reset and clear the signature field.
Cancel	Tap this button to discard the signature and close the display.

Once the signature is committed (for example, signature captured and accepted in the database), the user sees a single line of text "x Signed x" within the applet field control.

The Header and Footer is a line or unlimited number of lines of text in one or more paragraphs. The specific Header or Footer values that appear as well as how they appear in the dialogue box is controlled by a set of user properties. See ["Signature Capture Applet Control User Properties" on page 43](#).

## Configuring Signature Capture in Activities More Info View in Siebel Handheld

The following example provides detailed steps to configure signature capture in Activities More Info View in SIA Sales Handheld. The Activities More Info View has one applet 'SIS HH Activity Entry Applet - CE', which is based on the Action Business Component, which in turn is based on S\_EVT\_ACT Table. The following example shows how to configure a field within the Action Business Component called Signature, which is based on a new column created from S\_EVT\_ACT\_X Table. To enable basic signature capture (for example, no header or footer), follow these steps:

- 1 In Siebel Tools, add an extension column to the table S\_EVT\_ACT\_X.

For this Field	Add This Value
Name	SIGNATURE
User Name	Signature
Type	Extension
Nullable	TRUE
Physical Type	Long



For this Field	Add This Value
Length	0
Cascade Clear	Ignore
Transaction Log Code	TRUE
Status	Active
Sequence	999
Comments	Extension Column for Activity Signature Capture

- 2 Add a field to Action business component with the following values:

For this Field	Add This Value
Name	Signature
Join	X_EVT_ACT_X
Column	SIGNATURE
Text Length	16,383
Type	DTYPE_NOTE
Use Default Sensitivity	TRUE
Comments	Custom Field added for Signature Capture

- 3 Add control to applet. For this example, you will add the control to the 'SIS HH Activity Entry Applet - CE'.

For this Field	Add This Value
Name	Signature
Caption	Signature
Caption String Reference	SBL_SIGNATURE-1005113048-35Y
Field	Signature
HTML Display Mode	EncodeData
HTML Row Sensitivity	TRUE
HTML Type	Field
Runtime	TRUE
Text Alignment	Left
Visible	TRUE
Comments	Custom control added to display and invoke Signature Capture.

- 4 Add two Control User Properties to the new 'Signature' control with the following values:

User Property Name	Value
Signature	Y
Show Data	Y

- 5 Add the new control to the Edit Web Template for 'SIS HH Activity Entry Applet - CE'.

You can now invoke the signature capture dialogue box by tapping on the ellipsis (...) on the signature field on the applet.

## Adding a Signature Capture Button in Siebel Tools

Optionally, you can also configure the signature capture dialogue box by placing a button on the applet. The following configuration steps provide details on doing this.

### *To create a new minibutton control*

- 1 Create a new MiniButton control against the 'SIS HH Activity Entry Applet - CE'.

For this Field	Add This Value
Name	SignatureCapture
Caption	Sign
Caption String Reference	SBL_SIGN-1005113047-35W
HTML Type	MiniButton
MethodInvoked	StartSignature
Comments	Custom MiniButton to Invoke Signature Capture.

- 2 Add a Control User Property to the MiniButton control to indicate the Signature field in the business component:

- Name = SignatureField
- Value = Signature

## Signature Capture Applet Control User Properties

The user properties, shown in [Table 8](#), are optional and provide you with the ability to modify the style and layout of the Signature Capture applet.

Table 8. Style and Layout Modification Properties

User Property	Description	Sample Value
Signature	If Y the field becomes a signature field	Y
ShowData	If Y, the signature data can be redisplayed. Setting this User Property to 'N' disables the ellipses in the signature applet control, when there is signature data already existing	Y or N
EncryptKey	Encrypt key string. If this is not specified, an internal mechanism is used to generate the encryption key.	1 and 99999999
WritingGuide	Defines appearance of writing guide in signature control.	Y or N
BorderStyle	Defined the border style of the signature control.	Double
InkColor	Defines the ink color. Uses a Hex format (OxBBGGRR) of blue, green, red.	OxFF0000 (Blue)
InkWidth	Defines ink width	2 (Pen width)

The user properties shown in [Table 9](#) are added to support header and footer display and the save function.

Table 9. Header and Footer Display Properties

User Property	Description	Sample Value
SignatureDataField	This property is used to specify a destination field for the captured signature in scenarios where it differs from the current UI field. When specified, it specifies the name of the business component field that the signature data is fetched from and saved to.	SigDataField
SignatureHeaderField	Specifies the name of the BC field from which the header value is fetched.	SigHeader
SignatureFooterField	Specifies the name of the BC field from which the footer value is fetched.	SigFooter
SignatureHeaderSaveField	Specifies the name of the BC field to which the header value is saved.	SigHeaderSave
SignatureFooterSaveField	Specifies the name of the BC field to which the footer value is saved.	SigFooterSave
MaximumHeaderLines	Specifies the maximum height of the header display control in number of text lines. If the header text exceeds this number, the user needs to scroll down the control to view the rest of the header text. (Default = 4).	4
MaximumFooterLines	Specifies the maximum height of the footer display control in number of text lines. If the header text exceeds this number, the user needs to scroll down the control to view the rest of the header text. (Default = 4).	4
SignatureHeight	Specifies the height of the signature capture control by pixels (default = 80, max = 200).	Integer between 1 and 200.
SignatureDate	If set to Y, the current date is appended below the last line of the footer. The date string is saved to footer save field.	Y
SignatureTime	If set to Y, the current time is appended below the last line of the footer to the right of date if date is specified. The time string is saved to footer save field.	Y
ConfirmAccept	If set to Y, a confirmation message is displayed after accept button is pressed. Otherwise, no confirmation message is displayed.	Y

**NOTE:** If the content of the Header or Footer exceeds the MaximumHeaderLines or MaximumFooterLines, respectively, then the content can be scrolled vertically using the pen. No scrollbar will be generated.

## Testing the Siebel Handheld Application

Before deploying your application to your end users, be sure to thoroughly test the application by synchronizing to a handheld device. The handheld configuration is downloaded to the device where you can test the functionality and verify that you have the desired behavior. Another equally important aspect of handheld testing is to check to see how much data is downloaded to the device. If too many records are downloaded, this increases the length of time it takes to synchronize the handheld device and slows down the application performance. Check the server log file to see how many records are downloaded for each business component. You must turn on logging to capture this information in the log file.

For more information on enabling logging for Direct Server Sync, see ["Configuring Direct Server Sync Logging Levels"](#) on page 98.

For more information on enabling logging for Companion Sync, see ["Configuring Companion Sync Logging Levels"](#) on page 99.



# 4

## Application Administration

This chapter includes the following topics:

- "Overview of Siebel Handheld Administration Screens" on page 47
- "Setting Up Users in Siebel Handheld" on page 49
- "Assigning User Responsibilities to Siebel Handheld Users" on page 49
- "Creating Siebel Handheld Views" on page 49
- "Setting Business Component Filters for Siebel Handheld Users" on page 50
- "Setting Business Object Filters for Siebel Handheld Users" on page 52
- "Configuring Application Settings for Siebel Handheld" on page 54
- "Configuring Component Level Settings for Siebel Handheld" on page 59
- "Administering Barcode Settings for Siebel Medical Handheld" on page 60
- "About Monitoring Synchronization Sessions for Siebel Handheld" on page 72
- "Monitoring Synchronization Sessions for Siebel Handheld" on page 72
- "Obtaining Error Details from Siebel Handheld Synchronization Sessions" on page 73
- "Obtaining Business Component Information from Siebel Handheld Synchronization Conflicts" on page 73
- "Obtaining an Audit Trail for Siebel Handheld Synchronization Sessions" on page 74
- "Acting Upon Synchronization Errors in Siebel Handheld" on page 74
- "Administering Siebel Medical Handheld for Consignment Inventory Management" on page 75
- "Administering Products for Siebel Medical Handheld" on page 80

### Overview of Siebel Handheld Administration Screens

This chapter is designed to show you how to administer Siebel Handheld. Key tasks are outlined that you can perform using the Administration - Mobile screen. Your organization may follow a different task sequence according to its business requirements.

Following are the views used for administering Siebel Handheld applications. You can access the Administration - Mobile screen through either the Siebel Web Client or Siebel Mobile Web Client.

- **Session Administration:** This view contains a detailed information about user synchronization sessions. Use this view to monitor and investigate handheld user synchronization activities.

- **Server Component Administration:** This view allows you to manage server-level settings for synchronization components. These settings are used by the synchronization engine to extract application definition and user data. These settings will override the application-level settings.
- **Application Administration:** This view lists all the handheld applications available within your enterprise. From this view you can create new application settings and administer settings that have already been created. The contents of the following views are used by the synchronization engine to extract application definition and user data.
  - **Business Component Filters:** Use this view tab to change synchronization filter settings for business components. If you wish to restrict the contents of selected business components to reduce the data set otherwise visible to your users, you can change filter settings in this view.
  - **Business Object Filters:** Use this view tab to define business object level filters, which restrict data that is downloaded to the handheld client upon synchronization.
  - **Settings:** Use this view tab to define parameter settings for your application.
- **Conflict Administration:** This view allows you access selected transaction errors.
  - **Audit Trail:** Use this view tab to obtain information about action taken on a particular data conflict. Audit Trail must first be enabled for the conflict data. The business components are Handheld Transaction Error and Handheld Txn Error Message.
  - **Business Components:** Use this view tab to see business component information associated with a particular data conflict.
  - **Error Details:** Use this view tab to get detailed information about specific data conflicts. You are also able to take particular action on any given conflict.
- **Barcode Administration:** This view allows you to create new barcode definitions for your handheld applications.
- **User Administration:** This view allows you to manage user-specific settings, such as business object and business components filters, that filter the data that display to the user. The data sets contained in these user views are used by the synchronization engine to extract application definitions and user data. The Siebel Handheld application is populated by these data when the user performs synchronization. These settings override the server component-level and application-level settings.
  - **User Business Components:** Under this view tab, you can set user-specific sync filter directives for business components. These settings override application-level settings.
  - **User Business Objects:** Under this view tab, you can set user-specific filters for business objects. In this setting, you limit the data set that is downloaded, at the time of sync, to the Handheld client. These settings override application-level settings.
  - **User Settings:** Under this view tab, you can control user-specific settings which override server component-level and application-level settings.
- **Barcode Enabling:** In this view you can enable barcode scanning for chosen views in the Siebel Handheld application.



## Setting Up Users in Siebel Handheld

To set up users on a Siebel Handheld application, perform the following tasks:

- ["Assigning User Responsibilities to Siebel Handheld Users" on page 49](#)
- ["Creating Siebel Handheld Views" on page 49](#)
- ["Setting Business Component Filters for Siebel Handheld Users" on page 50](#)
- ["Setting Business Object Filters for Siebel Handheld Users" on page 52](#)

### Assigning User Responsibilities to Siebel Handheld Users

You must create user accounts and assign responsibilities and passwords for each handheld user. The steps are the same as those for creating user accounts, assigning responsibilities and passwords for the Siebel Web Client. See *Applications Administration Guide* for more information on this topic.

### Creating Siebel Handheld Views

The handheld synchronization engine extracts views based on configuration (SRF) and the responsibility set up in the Application Administration view.

To configure a new view in your handheld application, follow the list below. Knowledge of Siebel Tools is required to perform these tasks.

- 1 Create the new view in Siebel Tools. For information on creating views, see *Configuring Siebel Business Applications*.
- 2 Add that view to the handheld screen. For more information on adding views to screens, see *Configuring Siebel Business Applications*.
- 3 Add the screen to the handheld application if required. For more information on adding screens to applications, see *Configuring Siebel Business Applications*.
- 4 Compile the project. For information on compiling projects, see *Using Siebel Tools*.
- 5 Add the new view to the Siebel Handheld user's responsibility. See ["To add a handheld view to a user's responsibility" on page 49](#).

#### **To add a handheld view to a user's responsibility**

- 1 Launch the Web Client application that uses the same database that the Siebel Handheld application synchronizes with.
- 2 Choose Navigate > Site Map > Application Administration > Views.
- 3 Add the new views.
- 4 In the Responsibilities view, associate each view with the appropriate handheld responsibility.

- 5 Add appropriate users to the responsibility.

**NOTE:** For more detailed instructions on adding views and associating views with responsibilities, see *Applications Administration Guide*.

## Specifying Views for the Handheld Application

The Siebel Handheld application uses a small subset of views used in the Siebel enterprise application. Because there are memory resource constraints on handheld devices, it is recommended that you compile an SRF to extract only those views that are used on the device.

The combination of the SRF and the user's responsibility determines which views are extracted. The handheld device only extracts views whose parent screen is included in the handheld application and are part of the user's responsibility.

## About Business Component Filters

Business component filters are used in some cases to restrict the size of extractions that otherwise might be excessive. They suppress the extraction of business component records. Business component filters should be employed with discretion because excessive filtering can cause server data integrity problems.

Business component filters can be specified at either the Application level or the User level, but not at the Component level. They should not be specified at the user level outside of your test environment, and once tested should be migrated to the Application level.

If you are configuring for handheld synchronization, a suggested practice, is to start with no business component filters at all. Attempt a sync and even if the sync fails due to excessive data extraction volumes, view the extraction results to determine the business components for which the data extraction was excessive. If any business component extraction is found to be excessive, you can reduce the extraction by adjusting the existing search specs specified in Siebel Tools (applets and business components), or Handheld Settings (for example, in DefaultBusObj), and selection filters (business object filters). If nothing else works, a business component filter can be used to force a reduction in the result set for a particular business component.

## Setting Business Component Filters for Siebel Handheld Users

The Business Components view in the Application Administration screen contains the sync filter settings for business components. If you wish to add or remove business component filter settings for users, you do so in this view.

### **To add a business component filter setting**

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Application Administration.

- 2 In the Application Administration screen, select the appropriate application, then click the Business Component view tab.
- 3 Click New, then enter the required information.

Some fields in the Business Component view are described in the following table:

Field	Comments
Owner	Read only. Contains the Siebel Handheld application to which the business component will be associated. For example, Siebel <Application name> for CE.
Business Component	A text box. Enter the business component name.
Name	A text box. Enter the business component filter name. For example, Filter 1.
Query	A text box. Enter the syntax for the query. For example, [Start Date] <=Today()  For more information on developing queries, see <a href="#">"Data Filtering."</a>

**To remove a business component filter setting**

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Application Administration.
- 2 In the Application Administration screen, select the appropriate application, then click the Business Component Filters view tab.
- 3 Select the filter setting record wish to remove.
- 4 From the Business Component Filters menu, choose Delete Record.

**About Business Object Filters**

The Siebel Web client supports named queries on most or all screens. These queries restrict the result set displayed to the user. Business object filters are the Handheld Sync equivalent to these named queries. Just like client based queries, they are applied to a specified business object. They also contain search or sort specifications for business components that are part of that business object.

The Default column is the only difference from the query syntax appearing in a PDQ filter for the Siebel Web client. The Default column is unique to the business object filter mechanism. For Web Client queries, users can set a default query for each view in their Preferences screen. If users do not do this, there is no default query, so all records are returned by default. This is not recommended for handheld deployments as this would result in excessive data extraction volumes. Thus, the Default column allows you to decide what filter should be used by default if a user does not make a selection. There is also a client option to revert to default filters selection. There should be at most a single default filter for each business object name. It is not recommended that you set more than one filter as the default for a particular business object. Note however, that the same default choice will be made by all clients.

Business object filters can be specified at either the Application level or the User level, but not at the Component level. Business object filters specified at the User level will override a filter specified at the application level provided the application-level filter has the identical values for the business object name and filter name. The list of filter choices presented to the user is the merged list of all application filters except those overridden at the user level, plus all user filters.

## Setting Business Object Filters for Siebel Handheld Users

The Business Object Filters View in the Application Administration screen contains the sync filter settings for business objects. If you wish to add or remove business object filter settings for users, you do so in this view.

### *To add a business object filter setting*

- 1 From the application-level menu, select **Navigate > Site Map > Administration-Mobile**.
- 2 In the Application Administration screen, select the appropriate application, and then click the **Business Object Filters** view tab.
- 3 Click **New**, and then enter the required information.
- 4 The fields in the Business Object Filters view are described in the following table:

Field	Comments
Owner	Read only. Contains the Siebel Handheld application to which the business component will be associated. For example, Siebel <Application Name> for CE.
Default	Check to allow you to decide what filter will be used by default if a user does not make a selection.
Business Object	A text box. Enter the business object name. For example, Account.

Field	Comments
Name	A text box. Enter the business object filter name. For example, BOFilter 1.
Query	A text box. Enter the syntax for the query. For example, 'Account'.Search = "[Account Status] = LookupValue ( ""ACCOUNT_STATUS"", ""Active"" )" 'Account'.Sort = "Name, Location".  For more information on developing queries, see <a href="#">"Data Filtering."</a>

### ***To remove a business object filter setting***

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Application Administration.
- 2 In the Application Administration screen, select the appropriate application, and then click the Business Object Filters view tab.
- 3 Select the filter setting record wish to remove.
- 4 From the Business Object Filters menu, choose Delete Record.

## **About Thread Throttling**

When a large number of users attempt to synchronize simultaneously, the load on a single server can become excessive. Thread throttling significantly reduces the total number of simultaneously active transaction processor threads and database extraction threads, thereby increasing the overall throughput for synchronization, without reducing the number of concurrent users. Synchronization performance degrades slightly but will successfully complete for all users.

Thread throttling allows the maximum possible number of concurrent users. It throttles in a manner that maximizes application server usage during any mixture of transaction processor and database extraction threads. Thus, if the server supports  $x$  concurrent transaction processing threads, it will allow this number of transaction processing threads while disallowing all database extraction threads. Similarly, if the server supports  $y$  concurrent database extraction threads, it will allow this number of database extraction threads while disallowing all transaction processing threads. If fewer than  $x$  transaction processing threads are currently active, some database extraction threads are allowed to execute concurrently. Similarly, if fewer than  $y$  database extraction threads are currently active, some transaction processing threads are allowed to execute concurrently.

For information on thread throttling settings, see ["Configuring Application Settings for Siebel Handheld"](#) on page 54.

To enable thread throttling, see ["To add a new application setting"](#) on page 59.

## About Settings in the Handheld Administration Screens

Settings can appear at three levels: Application, Component, or User. Certain settings are only allowed at specific levels.

There are also two types of settings: single-line and multi-line settings. For a single-line setting, only one row may contain a unique setting name at a given level. Thus, a single-line setting at the User level may only be used once at that level. For single-line settings, the Sequence column should always contain a value of zero. For multi-line settings, the sequence column is necessary to allow multiple rows. The sequence column has no effect on actual processing, but is part of the logical key in the database table. When you create a new record in this database table, the record must have a unique logical key. For single-line settings, you may leave the sequence column value alone, which will result in a default value of zero being assigned. For multi-line settings, each line must include a different sequence number to avoid logical key conflicts. If the combination of setting name and sequence number is not unique for a particular parent record (Application, Component, or User), you will receive an error message when stepping off or saving the record. Multi-line entries must contain correct the key values before they can be saved to the database.

The rules for override are that any setting, whether single line or multi-line, specified at the lower levels overrides that same setting name at higher levels. Thus the settings at the application level apply unless specific settings are overridden for a particular component or a particular user. When an override occurs, it occurs for the complete setting name. Thus, if a particular multi-line setting has three rows at the user level and twelve rows at the application level, the resulting multi-line setting value for that setting will contain only the three rows at the user level. There is also an override mechanism to allow a setting to be removed, rather than replaced. To remove a setting from a higher level, specify the setting name to be removed, with an empty setting value.

## Configuring Application Settings for Siebel Handheld

The Administration-Mobile screen contains a Settings list that allows you to change default settings. Some of the settings are described in [Table 10](#).

The Handheld setting value field has a limit of 2000 characters. To create a default business object (DefaultBusObj) setting value with more than 2000 characters, use the following general approach:

Break the value into multiple lines of DefaultBusObj settings. These settings should all be entered using the same DefaultBusObj value format:

- BusObj|Visibility|Query|BusComp\_1|query specifications\_1[|BusComp\_n|query specifications\_n]

When defining multiple lines of DefaultBusObj settings for a single business object, all view modes and filters should match. If a business component is found in multiple DefaultBusObj settings for a single business object, then the business component's query specifications will be concatenated with a space and appended into the previous business component's query specifications. You should be aware of this in order to decide if both query specifications should be combined with an OR or AND operative.

The DefaultBCUserProps and DefaultFields settings for a single business component can also be broken into multiple lines of settings if their values exceed 2000 characters. These settings should all be entered using the same value format as well:

- BusComp|BCUserProp\_1[|BCUserProp\_n] or BusComp|Field\_1[|Field\_n]

Table 10. Application Settings

Setting Name	Definition	Valid Values
AllowRememberPassword	Single-line setting. Specifies whether the Remember Password check box will be displayed on the Handheld Client Synchronization screen.	TRUE or FALSE
ApplicationDirectory	Single-line setting. Specifies the working directory (UNC path) of the Siebel Handheld synchronization component where user data are stored.	\\server name\directory name
DBExtractThreadLoad	Single-line setting. Enables Thread Throttling functionality for database extract threads. It is the load (or weight) that will be assigned to each individual Database Extractor thread. For each running database extracting thread, this load value will be used to determine the total system load, which is then compared against the MaxTotalThreadLoads value. A new thread will only be started if the total system load does not exceed the MaxTotalThreadLoads value. A value of zero disables throttling of Database Extractor threads.	integer >= 0; default is 2
DefaultBCUserProps	Multi-line setting. Reduces the number of User Properties that are extracted to the device metadata, thus decreasing the number of fields for a business component that need to be extracted. These reductions lower the metadata extract size and optimize client performance by removing irrelevant user properties from the handheld configuration. If this directive is not specified for a business component, then all user properties will be extracted.	

Table 10. Application Settings

Setting Name	Definition	Valid Values
DefaultBusObj	Multi-line setting. Used to force the extraction of a business object and its designated business components. This is typically used when a business component is not extracted because it is not specified via the "DefaultView" directive and is required for the application to function correctly. Another use of this directive is to designate business components that function as RBOs (reverse business objects).	Business Object Name Visibility Level  Business Component Name QBE query construct  For more on QBE (query by example) structure, see <a href="#">"Constructing Business Component and Business Object Filters"</a> on page 88.
DefaultFields	Multi-line setting. Used to force the extraction of fields for a particular business component. This is typically the case where the business component is extracted via the "DefaultView" directive but because the field is not visible on the applet, it is not extracted. Also when a hidden business component is extracted via the "DefaultBusObj" directive, it is necessary to specify all of the fields that need to be extracted for the business component. If no fields are specified via this directive, then the business component will not be extracted for this case.	Business Component Name Field1 Field2 ...
DefaultHandheldInsertMode	Single-line setting. Enables insert failure processing for synchronization. If enabled, synchronization will stop upon encountering a data conflict during an insert operation. End users or administrators must resolve the data conflict before synchronization can resume. This feature is disabled by default.	NoFail or FailOnError



Table 10. Application Settings

Setting Name	Definition	Valid Values
DefaultHandheldSyncPickMode	Single-line setting. Enables Extended Pick processing for synchronization. If enabled, synchronization will stop upon encountering a data conflict during a pick operation. End users or administrators must resolve the data conflict before synchronization can resume. This feature is disabled by default.	NoFail or FailOnError
EnableBatchExtraction	Single-line setting. Enables or disables Batch Sync functionality.	TRUE or FALSE
EnableThrottleDebugMode	Single-line setting. This parameter enables or disables Thread Throttling functionality.	TRUE or FALSE
MaxThrottleWaitTime	Single-line setting. For Thread Throttling functionality. This is the upper limit on the amount of time (in minutes) any individual throttling request will be allowed to wait.	integer >= 0; default is 5
MaxTotalThreadLoads	Single-line setting. For Thread Throttling functionality. It defines the maximum number of total thread loads (determined by DBExtractThreadLoad and TranProcThreadLoad for each type of thread) that will be allowed to run across the scope defined by ThreadThrottleScope. If a throttling request is made that causes this maximum to be exceeded, the requesting thread is delayed. The default value is zero, which completely disables the throttling mechanism.	integer >= 0; default is 0
NoDatabaseBusComp	Multi-line setting. Defines a business component that must be omitted from the device database and excluded from database extraction.	
NoExtractBusComp	Multi-line setting. Defines a business component that must be excluded from database extraction.	
SchemaChangeNotification	Multi-line setting. Defines a Business Service that should receive the Handheld Schema Change Notification.	(Siebel internal)

Table 10. Application Settings

Setting Name	Definition	Valid Values
ThreadThrottleScope	Single-line setting. For Thread Throttling functionality. It defines the scope of the thread throttling mechanism as using one of two different modes: Process Thread (throttling occurs independently within each process), or Application (throttling occurs across all processes running the same handheld sync application on a single server). Only the first character of the ThreadThrottleScope parameter will be used to determine the value. All other characters are ignored. Thus "aardvark" is interpreted as "Application." Case is also ignored. The default value is "Application."	Application or Process
TranProcThreadLoad	Single-line setting. For Thread Throttling functionality. It is the load (or weight) that is assigned to each individual Transaction Processor thread. For each running transaction processing thread, this load value is used to determine the total system load, which is then compared against the MaxTotalThreadLoads value. A new thread will only be started if the total system load does not exceed the MaxTotalThreadLoads value. A value of zero disables throttling of transaction processing threads.	integer >= 0; default is 3
TranProcThreshold	Single-line setting. For Thread Throttling functionality. This is the minimum time (in minutes) that the Transaction Processor will continue processing transactions before performing a handshake with the client. Once this value has been exceeded, a handshake occurs instead of starting to process the next transaction. Doing so prevents the client from timing out the session when thread throttling is enabled.	integer >= 0; default is 5

Table 10. Application Settings

Setting Name	Definition	Valid Values
TranReapplyComponent	Single-line setting. Server component to use for playback of Companion Sync transactions for parent Companion Sync component.	
TranReapplyServer	Single-line setting. Siebel Application Server to use for playback of Companion Sync transactions for parent Companion Sync component.	

**To add a new application setting**

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Application Administration > Settings.
- 2 From the Settings list menu, select New Record.
- 3 Click in the name field and select the desired application setting.
- 4 Click in the Value field and enter the text of the setting.

## Configuring Component Level Settings for Siebel Handheld

You administer server components for your handheld device from the Administration-Mobile > Server Component screen. The component displayed is based on the application selected in the Application Administration view. The Server Component Administration screen is used for overriding application settings at the component level on a specific server. The data entered here is used by the synchronization engine when the user synchronizes with the server.

**NOTE:** You can use this method for Direct Server Sync but not Companion Sync.

The Server Component screen contains a list of server components associated with the application that was selected in the Application Administration screen. For each server component, the Settings view details the associated settings.

The Name field value needs to be the exact component name, such as "SalesceObjMgr\_enu", of the Handheld Sync server component.

Server component settings are used primarily for functionality required for individual server components. For example, thread throttling is dependent on components running on a particular server and is best set at the server component level. Examples of settings that might be made at the component level are MaxTotalThreadLoads, TranProcThreadLoad, DBExtractThreadLoad, and so on. Generally, settings made at the application level are shared by all server components.

# Administering Barcode Settings for Siebel Medical Handheld

Siebel Medical Handheld can scan and parse data from HIBC and UCC/EAN barcodes. Siebel Administrators can set up Siebel Medical Handheld to scan and parse any one-dimensional barcode and render the corresponding data in an applet. For example, if a control in a list applet is enabled for barcode scanning and the barcode scanned is valid, the handheld application will parse the barcode, create a new record, and fill in the field with parsed data. In form applets, after the user scans an item, the data representing the item automatically populates the barcode-enabled field. In order to do this, Siebel Administrators must define the barcodes and how data will be parsed from these barcodes in the Barcode Administration view.

## Enabling Barcode Scanning in Siebel Handheld

Before using the barcode scanning feature, you must add the following parameter value in setup.ini:

```
EnableBarcode = Y
```

**NOTE:** In the event that your handheld application is not preconfigured to enable barcode scanning, you must make an Application Event Services entry in Siebel Tools.

### To enable barcode scanning

- 1 Navigate to Application object, and then select Siebel HH LS Medical.
- 2 Expand to Application Event Services object, add a new entry with the following:

Name: SHCE Core Barcode Service  
Event Name: HHCE\_Start  
Business Service: SHCE Core Barcode Service

## Mapping a Button for Socket In-Hand Scan Card

Siebel Handheld applications support embedded barcode scanners provided in Symbol and Intermec devices. In addition, Siebel Handheld applications support certain Socket scan cards. See *System Requirements and Supported Platforms* on Siebel SupportWeb for a list of supported handheld devices and Socket scan cards. Note that different Socket scan cards will require different scan card driver programs to be installed. Check with the card vendors/websites for required driver program installation.

For Intermec and Symbol devices, the barcode scanning can be triggered by the built-in buttons. If you are using Socket scan cards, the following steps are required to be taken on the Handheld device for mapping a button to the barcode-triggering utility software, SocketTrigger.exe.

### To map a button to SocketTrigger.exe (Socket Scan Card only)

- 1 Navigate to Start > Settings > Personal > Buttons.

- 2 From the Button list, select a button to trigger In-Hand Scan Card.
- 3 In the Button Assignment field, select SocketTrigger, and then tap OK.

## About the Barcode Parsing Algorithm Used in Siebel Medical Handheld

Barcode readers convert a barcode to a set of characters. Siebel Medical Handheld utilizes a specialized barcode class which defines the algorithm used to parse and automatically validate data from these converted characters. By default, Siebel Medical Handheld can parse data from HIBC and UCC/EAN barcodes but Siebel Administrators can easily define new one-dimensional (1D) barcodes in the Barcode Administrations views.

It is therefore important to understand how Siebel's barcode algorithm will use data defined in the Barcode Administration View to parse information from the barcode. [Table 11](#) defines these applets as well as the underlying business component and tables on which they are based.

Table 11. Barcode Applets

Applet	Business Component	Table	Description
Barcode	SHCE Barcode	S_Barcode	Lists barcode defined for Siebel Medical Handheld.
Barcode Item	SHCE Barcode Item	S_Barcode_Item	Lists data that will be parsed from the barcode.

SHCE Barcode Item is a child of SHCE Barcode. Thus, for each record in S\_Barcode table there are many child records in the S\_Barcode\_Item table.

The barcode parsing algorithm uses barcode definitions in the Barcode applet to identify the barcode. It uses the values specified in the Prefix, Min Length, and Max Length fields to find a match. Once it finds a match, it will determine the corresponding values in the Barcode Type and Separator (ASCII #) fields. It will then use this information to parse data from the barcode into property sets as defined in Barcode Item applet.

The Barcode Type and Separator (ASCII #) fields determine how the child records in the Barcode Item applet will be used to parse data from the barcode.

There are only two types of barcodes. [Table 12](#) describes the type of barcodes standards.

Table 12. Types of Barcodes

Barcode Type	Description	Example
Location	Barcode standards which always contact same data elements in the same order.	HIBC
Code	Barcode standards which contain different element in any order. Data elements are preceded by a code.	UCC/EAN

The Separator (ASCII #) field defines the ASCII character that will be used to separate data elements if there is more than one element that is variable (for example, there is more than one record where Min Length is not equal to Max Length in the Barcode Item applet).

The tables below provides examples of how the barcode parsing algorithm will use data in the Barcode Administration views to parse data from Location-based barcode and a Code-Based barcode:

### Example of Location Barcode Type

[Table 13](#) provides an example of the Location Barcode type.

**Location Barcode Type: HIBC +\$\$3061211220152LC**

Table 13. Matching Record in Barcode Applet

Name	Sequence	Min Length	Max Length	Prefix	Type	Separator (ASCII #)
Medical HIBC	8	16	24	+\$3	Location	
Secondary +\$3						

Data is parsed based on the child records in the Barcode Item applet. Since Barcode Type = Location, the parsing algorithm used the sequence listed in [Table 14](#) to parse data from the barcode.

Table 14. Child Records in Barcode Items Applet

Name	Sequence	Min Length	Max Length	Data Desc	Data Format	Output: Data Parsed from Barcode
Plus	1	4	4	Plus		+\$3
Expiry Date	2	6	6	Expiry Date	YYMMDD	061211
Serial Number	3	5	5	Serial Number		12201
Lot Number	4	0	8	Lot Number		52
LC	5	1	1	LC		L
CC	6	1	1	CC		C

Thus the relevant data that will be parsed from this barcode is as follows:

- Expiry Data = Dec 11, 2006
- Serial Number = 12201
- Lot Number = 52

### Example of Code Barcode Type

[Table 15](#) provides an example of the Code Barcode type.

**Code Barcode Type: UCC/ EAN ^17040606106654355^2111202^3050**

Table 15. Matching Record in Barcode Applet

Name	Sequence	Min Length	Max Length	Prefix	Type	Separator (ASCII #)
Medical UCC/EAN Primary	31	16	17	01	Code	29

Data Parsed Based on Child Records in Barcode Item applet is shown in [Table 16](#). Since Barcode Type = Code and Separator (ASCII #) = 29 (corresponds to ^), the parsing algorithm used the Code and Sequence to parse data from the barcode, and used the ^ character to distinguish variable data elements.

Table 16. Child Records in Barcode Items Applet

Name	Code	Sequence	Min Length	Max Length	Data Desc	Data Format	Output: Data Parsed from Barcode
Code 17	17	1	2	2	Code 17		17
Expiry Date	17	2	6	6	Expiry Date	YYMMDD	040606
Code 10	10	1	2	2	Code 10		10
Lot Number	10	2	1	20	Lot Number		6654355
Code 21	21	1	2	2	Code 21		21
Serial Number	21	2	1	20	Serial Number		11202
Code 30	30	1	2	2	Code 30		30
Quantity	30	2	1	8	Quantity		50

**NOTE:** The child records displayed in this table represent only a subset of all Barcode Item child records for Medical UCC/EAN Primary. These represent the child records that have a match in the barcode that we are trying to parse.

Thus the relevant data that will be parsed from this barcode is as follows:

- Lot Number = 6654355
- Expiry Date = June 6, 2004
- Serial Number = 11202
- Quantity = 50

## Creating New Barcode Definitions for the Handheld Application

You can define new one-dimensional barcodes in the Barcode Administration views. To define a new barcode, you need to create a new barcode definition in the Barcodes list, then create corresponding records in the Barcode Item list to define data elements within the barcode.



**To create a new barcode definition**

- 1** From the application-level menu, select **Navigate > Site Map > Administration-Mobile > Barcode Administration**.
- 2** Click **New**, then fill in the fields.

The fields in the Barcodes list are described in the following table:

Field	Comments
Name	Required. Any descriptive name for the barcode. Must be unique for all records defined in the Barcode screen.
Sequence	Required. This is the sequence for barcode parsing. The lower of two sequence numbers takes precedence when deciding which barcode in the list to match. For example, if a scanned barcode matches two entries in the barcode list, the one with a lower sequence number will be picked for the match. The lowest sequence number is 1.
Barcode Type	Required. Type of barcode standard. Can either be Location or Code. For a Location type barcode, the barcode data element parsing is done solely by the Sequence field in Barcode Item list. For a Code type barcode, the barcode data is first parsed into multiple sections by the Code field in the Barcode Item list, then is further parsed by the Sequence field for each section.  See <a href="#">"Example of Location Type Barcode" on page 67</a> and <a href="#">"Example of Code Type Barcode" on page 68</a> .
Buscomp	Optional. Used to designate into which business component the target data is placed.
Min Length	Optional. The minimum length for the barcode data in digits. If it is not set, the default minimum length is 1.
Max Length	Optional. The maximum length for the barcode data in digits. If it is not set, the default maximum length is 10000.
Prefix	Optional. Defines the value that the parsing algorithm uses to identify barcode definition to use. The allowed format for Prefix is any ASCII character for exact match, '#' for any single digit number match (that is, 0 - 9), '&' for any alphabet character in lower and upper case, or '*' for a wild card match. For example, you can enter ##9&* as the prefix, which means the first two characters can be any number, the third character has to be '9', the fourth character can be any alphabet character, and the fifth character can be any ASCII character.

Field	Comments
Suffix	Optional. Allows you to associate suffixes with individual fields. The allowed format for Suffix is the same as the one specified for Prefix. In addition, the rules for matching Suffix are the same as the ones for Prefix.
Description	Optional. Detailed description for this barcode.

- 3 In the Barcode Item list, add new records to identify how data will be parsed from barcode. Depending on the type of barcode standard you just defined (either Location or Code), you then need to create new records in the Barcode Item list to identify how data is parsed.
- 4 In the Barcode Item list, Click New, then update the required fields.

Some of the fields are described in the following table:

Field	Comments
Name	Required. Name of the barcode item (for example, Product Name corresponds to the Product Name field). This name does not determine which field in BusComp the parsed data is written to. That field is determined by the "Data Desc" field.
Code	Applicable for Code barcodes only. Used to break a barcode into multiple barcode sections.
Sequence	Required. The sequence for barcode data elements parsing. For Location barcodes, this corresponds to the sequence used to parse data elements from the barcodes. For Code barcodes, this corresponds to the sequence used to parse data elements within barcode sections.
Min Length	Required. Minimum Length of the character string for this data element. If this is a variable length string, then Minimum Length is not equal to Maximum Length.
Max Length	Required. Maximum Length of the character string for this data element. If this is a variable length string, then Minimum Length is not equal to Maximum Length.
Data Desc	Optional. Used by algorithm to identify what field to parse this data into. For example, Product Name corresponds to the Product Name field.

Field	Comments
Data Format	Optional. Defines format for data element (for example, MMDDYY is for date).
Action	Optional. Defines the action for the data element. Both Data Format and Action are written to the field specified in "Data Desc" by the following format: "<parsed data element>,<Data Format>,<Action>".  See the example in <a href="#">Table 20</a> .

### Example of Location Type Barcode

The two entries for the Barcode list, HIBC Secondary and IBM, are shown in [Table 17](#).

Table 17. Location Type Barcode List Entries

Name	Sequence	Barcode Type	Buscmp	Min Length	Max Length	Prefix	Suffix	Description
HIBC Secondary	1	Location	Medical Product		31	+\$9### ###3		
IBM	2	Location	Tech Product		30	+\$9### ###39		

Entries for Barcode - HIBC Secondary in the Barcode Item list are shown in [Table 18](#).

Table 18. Location Type Barcode Item List Entries

Name	Code	Sequence	Min Length	Max Length	Data Desc	Data Format	Action
Prefix		1	4	4	Prefix		
Quantity		2	5	5	Quantity		
Exp date flag		3	1	1	Exp flag		
Date		4	6	6	Expiration Date	YYMMDD	
Lot		5	0	13	Lot #		
Link		6	1	1	Link		
Check		7	1	1	Check		

If the barcode being scanned is +\$\$90010039509283C001LZ, both barcode entries "HIBS Secondary" and "IBM" are good matches. Since HIBC Secondary has a lower sequence as 1, it is picked as the final match for parsing the barcode. The data is parsed as follows:

```
{(Prefix, "+$$9") (Quantity, "00100") (Exp flag, "3") (Expiration Date, "950928,YYMMDD") (Lot #, "3C001") (Link, "L") (Check, "Z")}
```

**NOTE:** In this example, the use of "Prefix" in the two tables is different. The Prefix column in the Barcode list table is required for matching the record in the Barcode list. The Prefix row in the Barcode Item list table is a user-defined data element to be parsed for a particular barcode.

### Example of Code Type Barcode

Entries for Code type barcode in the Barcode list are shown in [Table 19](#).

Table 19. Code Type Barcode List Entries

Name	Sequence	Barcode Type	Buscomp	Min Length	Max Length	Prefix	Suffix	Description
UCC/EAN	1	Code	Medical Product		37	01		

Entries for Code type barcode in the Barcode Item list are shown in [Table 20](#).

Table 20. Code Type Barcode Item List Entries

Name	Code	Sequence	Min Length	Max Length	Data Desc	Data Format	Action
AI 01	01	1	2	2	AI 01		
Packaging Indicator	01	2	1	1	Indicator		
UCC/EAN #	01	3	12	12	UCC/EAN		
Link	01	4	1	1	Link		
Quantity Section	30	1	3	5	Quantity Section	1000	Validate
AI 240	240	1	3	3			
Product #	240	2	1	13	Product #		

The barcode UCC/EAN is parsed to three sections, 01, 30, and 240. If the barcode being scanned is 01103123456789033050240ABCDEFG, the data is parsed as follows:

Parsed Data = {(AI 01, "01") (Indicator, "1") (UCC/EAN, "031234567890") (Link, "3") (Quantity section, "3050,1000,Validate") (Product #, "ABCDEFG")}

**NOTE:** The Code portions in the barcode appear in bold text.

## Enabling Applications Views for Barcode Scanning

You can enable any existing or new view for barcode scanning.

**NOTE:** You need to edit the user properties for the view applet's underlying business component. See [Appendix C, "User Properties"](#) for details on how to edit the Barcode Fields user property.

### To enable an application view for barcode scanning

- 1 From the application-level menu, select **Navigate > Site Map > Administration-Mobile > Barcode Enabling**.
- 2 Click **New**, then enter the necessary information.

The fields in the Barcodes list are described in the following table:

Field	Comments
View	The view in the handheld application from which the scan occurs.
Applet	The applet within the view from which the scan occurs.
Buscomp	The business component from which information is drawn.
Buscomp Field	The specific field within the business component that should be updated through barcode scanning.

## Example: Process of Creating a New Barcode Definition in the Service Handheld Application

Although this example is for the Siebel Service Handheld device, it pertains to all Siebel Handheld products. You can define new one-dimensional barcodes in the Barcode Administration views. To define a new barcode, you need to create a new barcode definition in the Barcode list, then create corresponding records in the Barcode Item list to define data elements within the barcode.

To create a new barcode definition, complete the following procedures:

- ["To create a new barcode definition for Siebel Service Handheld" on page 70](#)
- ["To enable the SHCE Service FS Activity Parts Movements views for barcode scanning" on page 71](#)

**To create a new barcode definition for Siebel Service Handheld**

- 1 From the application level menu, select Navigate > Site Map > Administration-Mobile > Barcode Administration.
- 2 Click New, then fill in the necessary fields.

The following table describes the fields in the Barcodes list.

Field	Sample Data
Name	Hard Disk 100 GB
Sequence	Set to the greatest number in the current list view plus one
Barcode Type	Location
Buscomp	FS Activity Parts Movement
Min Length	12
Max Length	12
Prefix	#
Description	Service

- 3 In the Barcode Item list, add a new record to identify how data will be parsed from the barcode. The following table describes the fields in the Barcode Item list.

Name	Sequence	Min Length	Max Length	Data Desc
UPC Code	1	1	1	
MFG Code	2	5	5	
Product Name	3	5	5	Product Name
CC	4	1	1	

**NOTE:** Reducing the amount of barcode seed data extracted to the Service Handheld application improves client performance and reduces synchronization database extract size. The following steps provide an example of extracting only the barcode standards that are required for the Service Handheld application. This is applicable as long as all the barcode records for the Service Handheld application defined in the Barcode list have the Description attribute set to "Service."

- 4 From the application level menu, select Navigate > Site Map > Administration-Mobile > Application Administration.
- 5 In the Application Administration view, select "Siebel Service for CE."
- 6 Click the Settings view tab, and make sure the parent record is the application "Siebel Service for CE."
- 7 Locate the "DefaultBusObj" directive that has the following value:

- "SHCE Barcode|0||SHCE Barcode||SHCE Barcode Item||SHCE Barcode Enable|".

Replace that value with the following value:

- "SHCE Barcode|0||SHCE Barcode|[Description]="Service"|SHCE Barcode Item||SHCE Barcode Enable|".

**To enable the SHCE Service FS Activity Parts Movements views for barcode scanning**

- 1 From the application-level menu, select Navigate > Site Map > Administration - Mobile > Barcode Enabling.

The Barcode Enable list appears.

- 2 If the following record does not exist, create a new record to enable the Product Name field in the SHCE Service FS Activity Part Movements List Applet for barcode scanning with the following information:

View	Applet	Buscomp	Buscomp Field
SHCE Service FS Activity Part Movements	SHCE Service FS Activity Part Movements List Applet	FS Activity Parts Movement	Product Name

- 3 If the following record does not exist, create a new record for the Product Name field in the SHCE Service FS Activity Part Movements Form Applet for barcode scanning with the following information:

View	Applet	Buscomp	Buscomp Field
SHCE Service FS Activity Part Movements (More Info)	SHCE Service FS Activity Part Movements Form Applet	FS Activity Parts Movement	Product Name

- 4 Save the changes. Now the Buscomp Field "Product Name" in both the "SHCE Service FS Activity Part Movements" view and the "SHCE Service FS Activity Part Movements (More Info)" view have been enabled for barcode scanning. The Buscomp Field "Product Name" specified here matches the value in the Data Desc column in the Barcode Item list defined earlier.

**NOTE:** The example provided above assumes that the product Hard Disk 100GB has been defined and properly set in the appropriate product catalog.

## About Monitoring Synchronization Sessions for Siebel Handheld

You monitor Siebel Handheld application synchronization sessions and synchronization conflicts from a number of screens within the Siebel Mobile Web Client, or if you are using DSS or DSSvP you do so by way of the Siebel Web Client. Every time a user synchronizes with the server, a record is made.

The following topics relate to synchronization monitoring.

- ["Monitoring Synchronization Sessions for Siebel Handheld" on page 72](#)
- ["Obtaining Error Details from Siebel Handheld Synchronization Sessions" on page 73](#)
- ["Obtaining Business Component Information from Siebel Handheld Synchronization Conflicts" on page 73](#)
- ["Obtaining an Audit Trail for Siebel Handheld Synchronization Sessions" on page 74](#)
- ["Acting Upon Synchronization Errors in Siebel Handheld" on page 74](#)

## Monitoring Synchronization Sessions for Siebel Handheld

The Session Administration view allows you to gather all data related to each sync session a user performs. The Sync Status list appears above two child lists: Sync Sessions and Extraction Info. These lists allow you to do the following:

- **Sync Status:** Allows you to monitor each user sync session, and includes such data as: sync status, the date, type of sync and so on.
- **Sync Sessions:** Allows you to gather further information on the status of each sync session, including conflicts during the sync, the size of the data extracted, and so on.
- **Extraction Info:** Allows you a detailed look at all data extracted during the sync session, including business component information, the number of records extracted. You use this list to help get answers to questions such as the following:
  - Why did a particular record download to the device?
  - Why is an expected server record not downloaded to the device?
  - Why is the total number of records showing up in some view so big?
  - Why is the total number of records showing up in some view so small?
  - Why does the extraction take so long?

There is one extraction record for each unique extraction context. The extraction record will list the filters used to control the extraction, the context of the extraction, how many records exist in that context for those filters, and how long it took to extract that set of records. By analyzing these records, and looking at all extraction changes resulting from filter changes, and, or changes to search specs (defined in Siebel Tools), you can answer all of the above questions.



***To monitor synchronization sessions***

- From the application-level menu, select Navigate > Site Map > Administration-Mobile > Session Administration.

The Sync Status list appears, with the two child lists, Sync Sessions and Extraction Info, below it.

## Obtaining Error Details from Siebel Handheld Synchronization Sessions

The Conflict Administration view allows you to obtain details of sync errors that occur during individual sync sessions.

***To obtain synchronization error details***

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Conflict Administration.
- 2 In the Transactions list, select the appropriate record, and then click the Error Details view tab.
- 3 In the Error Details list, select or query for the desired record.

## Obtaining Business Component Information from Siebel Handheld Synchronization Conflicts

The Transactions view on the Conflict Administration screen allows you to obtain business component information related to synchronization errors that occur during individual sync sessions.

***To obtain business component error details***

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Conflict Administration.

The Transactions view appears.

- 2 In the Transactions view, select the appropriate record, and then click the Business Components view tab.

## Obtaining an Audit Trail for Siebel Handheld Synchronization Sessions

The Transactions view on the Conflict Administration screen allows you to obtain audit trail information for an action that was taken against a particular transaction.

**NOTE:** You must enable Audit Trail separately. For information on enabling Audit Trail, see *Applications Administration Guide*.

### *To obtain audit trail information for synchronization error details*

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Conflict Administration.  
The Transactions view appears.
- 2 In the Transactions view, select the appropriate record, and then click the Audit view tab.

## Acting Upon Synchronization Errors in Siebel Handheld

Upon reviewing a synchronization error, you can act upon it by performing one of three different actions.

### To act upon handheld sync transaction errors

- 1 From the application-level menu, select Navigate > Site Map > Administration-Mobile > Conflict Administration.

The Transactions list appears. The transaction buttons are described in the following table:

Action	Result
Reapply	<p>Reapplies the selected transaction with values listed in the view (or Field Value view). These values override the results provided by the server.</p> <p>TranReapplyComponent and TranReapplyServer are necessary when using Companion Sync and ignored for Direct Server Sync. These are used when selecting transactions to reapply from the Administration - Conflict screen.</p> <p>If TranReapplyComponent and TranReapplyServer are not specified, it is impossible to reapply transactions originating from Companion Sync.</p>
Export	<p>Exports the content of the transaction in the same format used by the sync engine. This output file can be sent to Siebel Technical Support for problem analysis.</p>
Ignore	<p>Accepts the current status and does not act upon the error. The record becomes read-only. There is no impact, except that the error will no longer appear in queries for unresolved conflicts.</p>

- 2 Click either Reapply, Export, or Ignore depending on your needs.

## Administering Siebel Medical Handheld for Consignment Inventory Management

This section outlines an example process performed by a Siebel Administrator and end users. Your company may follow a different process according to its business requirements.

A medical device company would like to track a product for consignment inventory management. The Administrator has already defined the product in the system so would just need to define how this product is going to be managed for consignment inventory. He uses the capture hierarchy command to update the product hierarchy so that sales representatives are able to view hierarchical results when analyzing inventory using the handheld. He then recreates the product hierarchy for each inventory location where these products are being kept and defines consignment levels at that inventory location. For some products, he is required to record inventory that was sent to an inventory location or to a sales representative. He then assigns cycle counts to sales representatives.

## Key Tasks in Administering Siebel Medical Handheld

The key tasks in administering Siebel Medical Handheld are:

- Administering products for consignment inventory management
- Capturing product hierarchy
- Managing Inventory Locations
- Recreating product hierarchies in Inventory Locations
- Setting Consignment Levels for Inventory
- Creating Assets
- Recording Inventory Movement
- Viewing signatures for Approval-required moves
- Assigning Cycle Counts

## About Product Hierarchies

A product hierarchy is a grouping of products. It is a way to track relationships between products, product groups or product classes. A product hierarchy is similar to a family tree on which you have a root parent product, parents and child products, and leaf-level products. Your company can track many product hierarchies for a certain inventory location. An example of one product hierarchy is shown in [Figure 1](#):

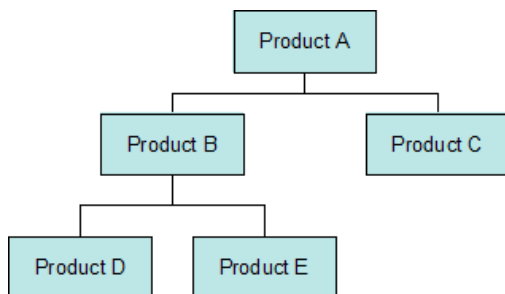


Figure 1. Product Hierarchy

In this product hierarchy, Product A is the root parent. Product A is the parent product of Product B and Product C. Product B and Product C are child products of Product A. Product B in turn is the parent product of Product D and Product E. Product D and Product E are child products of Product B. Product D, Product E and Product C are all leaf-level products.

With Medical Handheld, users are able to view detailed inventory and usage information for all products in a product hierarchy in a hierarchical manner. By navigating to the product hierarchy views, users can see aggregated product information on: inventory, current and historical average usage. You can set up what level in the product hierarchy is shown in the handheld.

## About Products, Assets and Inventory Transactions

Assets are physical instances of a product. Depending on how you administer a product, Medical Handheld keeps track of assets differently. For example, products that are not serialized, not unique, and are not tracked by lot number are simply tracked by product. When counting these products, assets are not created in the assets table nor associated to a product during a cycle count. On the other hand, products that are serialized require creation (if there are no asset records) of asset records in the assets table and association to this product during a cycle count. During an inventory count, transactions are created to adjust inventory information.

You would need to determine how your company would like to track products for consignment inventory. Depending on how you define your products, the handheld generates transactions automatically to create an asset record in the assets table, associate these assets to the product, or adjust inventory transactions to update inventory information when a cycle count is performed. These transactions update inventory information on the server during sync.

Table 21 summarizes how cycle count records are generated by the handheld when a sales representative performs a cycle count.

Table 21. Cycle Count Records Overview

Product Serialized?	Product Track by Lot #?	Product Unique?	Product and Asset Tracking During a Cycle Count?
Yes	Not Applicable	Not Applicable	<p>Check whether asset already exists in the assets table.</p> <p>If asset does not exist, create a new asset and associate the asset with the product for the cycle count being performed. If the product has not been counted, create a new detail record on this product, and associate the asset with this product.</p> <p>If asset already exists, associate this asset with the product for the cycle count being performed. If the product has not been counted, create a new detail record on this product, and associate the asset with this product.</p>
No	Not Applicable	Yes	<p>Check whether asset already exists in the assets table.</p> <p>If asset does not exist, create a new asset and associate the asset with the product for the cycle count being performed. If the product has not been counted, create a new detail record on this product, and associate the asset with this product.</p> <p>If asset already exists, associate this asset with the product for the cycle count being performed. If the product has not been counted, create a new detail record on this product, and associate the asset with this product.</p>

Table 21. Cycle Count Records Overview

Product Serialized?	Product Track by Lot #?	Product Unique?	Product and Asset Tracking During a Cycle Count?
No	Yes	No	<p>Always create a new asset and create an association between the asset and the product for the cycle count. If a product has not been counted, create a product detail and associate the asset with that product detail.</p> <p>Update the quantity information on the cycle count asset record if the quantity is included in the barcode data, or else set the quantity to 1</p> <p><b>NOTE:</b> Upon count complete, old asset records are deleted, so only the most recently counted assets are displayed.</p>
No	No	No	<p>If a product has been counted, increment the quantity of that product by 1.</p> <p>If not, create a new product detail and set the quantity equal to 1.</p>

**NOTE:** The main difference between Serialized and Unique products is how uniqueness of the assets is defined. Serialized products have more business rules associated with them. Unique products are like Serialized products but do not have business rules associated with them, allowing a lot more flexibility in choosing which fields define uniqueness of an asset. For more information on how products are managed, see *Siebel Life Sciences Guide*.

## About Usage Calculations

ales representatives can use the Medical Handheld to analyze usage behavior on consigned inventory. They can compare Average Usage (in the field called Use in the Inventory Detail views) and Historical Average Usage (in the field called Avg in the Inventory Detail views). Average Usage is the quantity used over a predefined number of days based on the last two cycle counts performed. The Historical Average Usage is the quantity used over a predefined number of days based on all cycle counts ever performed for that product. By comparing these two calculations, sales representatives will be able to determine whether there are any significant changes to usage behavior for a certain product. They can use this information to identify cross-sell and up-sell opportunities.

Detailed calculations are as follows:

- On Count Complete, store Current Usage is based on adjustment and Current Count Date. Current Usage is the difference between what was counted and what the application expects to have.

- Calculate and store New Daily Usage =  $\text{Current Usage} / (\text{Current Count Date} - \text{Last Count Date})$ .
- Calculate New Historical Daily Usage =  $((\text{Historical Daily Usage} \times \text{Number of Counts}) + \text{New Daily Usage}) / (\text{Number of Counts} + 1)$ .
- Calculate and store Historical Average Usage =  $\text{New Historical Average Usage} \times \text{Use Days}$ .
- Calculate and store Average Usage =  $\text{New Daily Usage} \times \text{Use Days}$ .
- Store Current Count Date as Last Count Date.

**NOTE:** Use Days is defined by the Administrator for each inventory location. See [“Managing Inventory Locations with Siebel Medical Handheld” on page 80](#) to determine how to define Use Days. If Use Days is not defined for the Inventory Location (for example, field is blank), a default input of 30 is used to calculate usage. Usage is calculated when Sales Representatives tap 'Count Complete' button as they complete a cycle count. It will only be calculated for products that are counted during that cycle count. Also, Usage numbers will not be calculated during the first time that a cycle count is performed on an inventory location. Usage calculations need a reference cycle count, since it is the first cycle count, the application will not be able to calculate meaningful numbers.

## Administering Products for Siebel Medical Handheld

To appear in a Medical Handheld inventory, a product must belong to a product hierarchy that has been captured. The following procedure describes how to capture a product hierarchy.

**NOTE:** Make sure you have recaptured the hierarchy after editing the relationships between products.

### *To capture a product's hierarchy*

- 1 From the application-level menu, choose Navigate > Site Map > Administration-Product Administration.

Select the root products whose hierarchies you want to capture. If you select a product that is not a root, that product is ignored. A dialog box lists these ignored records.

- 2 Click Capture Hierarchy.

This prepares the product data so that it can be used by the Medical Handheld application to track inventory. For more information, see [“Administering Products for Siebel Medical Handheld” on page 80](#).

## Managing Inventory Locations with Siebel Medical Handheld

When tracking consigned inventory for a customer, you need to create an inventory location and associate this inventory location with the account. You can then view and keep track of inventory at this location.



**To create and administer inventory locations**

- 1 From the application-level menu, choose Navigate > Site Map > Inventory.
- 2 In the My Inventory Locations list, create a new record and enter the date for the appropriate fields.

Some of the fields are described in the following table:

Field	Description
Name	Name to uniquely identify Inventory Location.
Type	Type of inventory location. For example, warehouse or trunk.
Position	Indicates employee associated with the inventory location.
Ownership	Indicates type of ownership.
Owner Company	Identifies the account that owns the inventory location.
Contact	Identifies contact information for the inventory location The data is used by sales representatives when scheduling cycle counts for that inventory location on the handheld.
Requires Approval	Indicates what type of approval (handheld signature capture) is required for movement of inventory. If the field is set to Product, the handheld uses product settings defined in the Product Administration screen to determine whether the movement requires an approval. If the field is set to inventory location, all movement of inventory requires an approval.
Use Days	Used to calculate Average and Historical Average Usage. For more information, see <a href="#">"About Usage Calculations"</a> on page 79.

**To view inventory data for an inventory location**

- 1 From the application-level menu, choose Navigate > Site Map > Inventory.  
Select an inventory location from the My Inventory Location list.
- 2 Click the hyperlink in the Name field.  
The Product Inventory view appears for that Inventory Location.

## Re-creating Product Hierarchies in Inventory Locations with Siebel Medical Handheld

After creating an inventory location, you define which product, product classes, and product groups are tracked in that inventory location. You can use the generate hierarchy command to re-create product hierarchies in an inventory location. You must define product hierarchies for an inventory location so that sales representatives are able to view inventory and usage results in a hierarchical manner in the product hierarchy views.

### *To re-create product hierarchies in an inventory location*

- 1 From the application-level menu, choose Navigate > Site Map > Inventory.
- 2 Select an inventory location from the My Inventory Location list, and then click on the hyperlink in the Name field.

The Product Inventory view for this Inventory location appears.

- 3 In Product Inventory list create a new record.
- 4 Click the select button in the Product field.

The Pick Product picklist appears.

- 5 Select a product from picklist, and click OK.
- 6 In the External Location form, click Generate Hierarchy.

Clicking the Generate Hierarchy button launches a business service that creates new product inventory records for all products belonging to the same product hierarchy that the product you select belongs. For each product inventory record created, corresponding records in the Inventory Level list are also created for On-Hand Goods inventory.

## Setting Consignment Levels for Inventory for Medical Handheld

After defining products and re-creating the product hierarchy, you then need to define consignment levels.

### *To define consignment levels for inventory*

- 1 From the application-level menu, choose Navigate > Site Map > Inventory.

- 2 Select an inventory location from the My Inventory Location list, and then click on the hyperlink in the Name field.

The Product Inventory view appears for this Inventory location. You can set consignment levels by updating the fields in the Product Inventory List. The fields are explained in the following table:

Field	Description
Min	Minimum level of inventory the customer agreed to keep at that inventory location, usually, in return for pricing benefits.
Max	Maximum level of inventory required at that inventory location.
Consignment Level	Flag that when checked, indicates whether this product is consigned.

## Creating Assets for Medical Handheld

For some inventory, administrators may be required to keep track of assets, for instance, serialized products. In these cases they would need to create assets and associate these assets with products.

### To create assets

- 1 From the application-level menu, choose Navigate > Site Map > Assets.
- 2 In the All Assets list, create a new record.
- 3 Update the required fields.

Some of the fields are described in the following table:

Field	Description
Asset #	Asset Number. Automatically generated but can be edited.
Product	Product Name.  <b>NOTE:</b> Once Product is selected, other fields are also updated, including: Serial #, Type, Serialized.
Lot #	If the Product has Lot# Tracking selected in the Product Administration > More Info views, then you need to select Lot# for this asset.

Field	Description
Unique ID	Used to identify the asset from product barcode data.  This should be created based on the Expression field in the Product Administration > More Info view for the product. For example, if Expression is set to: Lot Number, Serial Number, then Unique ID should be a concatenation of Lot Number and Serial Number values for this asset.
Use By	Expiration date.
State	Calculated based on Expiration Date. An asset can be good, short dated, or expired.
Days Left	Calculated based on Expiration Date and current date. Days before the product expires.

## Managing Inventory Transactions for Medical Handheld

After creating assets, you can then create inventory transactions to record movement of inventory from one inventory location to another. You can also keep track of inventory transactions created as part of a cycle count and view signatures captured for approval-required moves.

**NOTE:** All inventory transactions created by the Medical Handheld are created for On-Hand Goods bucket. For more information on Managing Inventory and Inventory Transactions, *Siebel Field Service Guide*.

### To record movement of inventory

- 1 From the application-level menu, choose Navigate > Site Map > Inventory Transactions
- 2 In the All Inventory list, create a new record and update the required fields.

Some fields are described in the following table:

Field	Description
Type	Type of inventory transaction. For example, Stock Transfer or Receive Other. For information on transaction types, please refer to <i>Siebel Field Service Guide</i> .
Product	Product being moved.
Source Location	Source location. This can be virtual (External Location) or a physical location (warehouse, trunk, or a customer's inventory location).

Field	Description
Destination Location	Destination location. This can be virtual (External Location) or a physical location (warehouse, trunk, or a customer's inventory location).
Source Availability; Source Status; Destination Availability; Status	<p>Defines inventory level at source location for that product. Inventory levels are categories of products defined by a combination of availability and status. Both availability and status can have a variety of values. Availability values are Customer Owned, In Transit, On Hand, On Order, and Reserved. Status values are Good and Defective.</p> <p><b>NOTE:</b> When sales representatives are performing cycle counts, transactions are automatically generated with Availability = On Hand and Status = Good.</p> <p>For information on transaction types, <i>Siebel Field Service Guide</i>.</p>

- 3 Click the Transaction # Hyperlink.  
The Inventory Transaction > Assets view appears.
- 4 In the Assets list, create a new record.
- 5 Click the select button in the Asset # field.  
The Pick Asset picklist appears.
- 6 Select an asset, then click OK.

## Viewing Signatures Captured for Approval-Required Moves from Medical Handheld

Sales representatives can decide to move inventory from a customer's inventory location, as in the case of expired or short-dated product. Your company might decide to enforce varying levels of control for movements that are done on certain products (for example, controlled substances, new products, and so on). Or, your company might want to enforce control on all inventory movements done on specific inventory locations. In these cases, your company can enforce sales representatives to capture signature directly on the handheld. You can then view signatures captured for these inventory transactions.

### **To view signatures captured for approval-required moves**

- 1 From the application-level menu, choose Navigate > Site Map > Inventory Transactions.
- 2 In the All Inventory list, query for the inventory transaction you need.
- 3 Click the hyperlink in the Transaction # field.

- 4 Click the Approvals view tab.

## Assigning Cycle Counts for Medical Handheld

A regular task for the administrator is assigning cycle counts to be performed by sales representatives on an inventory location.

The process below describes how cycle count can be assigned manually. But you can automate this process, or define rules in assigning cycle counts. For more information on Cycle Counts and Cycle Count Administration, please refer to *Siebel Field Service Guide*.

### **To assign a cycle count**

- 1 From the application-level menu, choose Navigate > Site Map > Cycle Counting.
- 2 In the My Pending Cycle Count list, create a new record.

Some fields are described in the following table:

Field	Description
Inventory Location	Location on which to perform the cycle count.
Owner	Owner of the cycle count. Determines who is assigned this cycle count.
Due Date	Required date when the cycle count should be completed by.

Sales representatives receive this pending cycle count the next time they synchronize.

# 5

## Data Filtering

The following topics are covered in this chapter:

- [“Developing Data Filters for Handheld” on page 87](#)
- [“Constructing Business Component and Business Object Filters” on page 88](#)
- [“Business Object Filters” on page 89](#)
- [“Recommendations for Managing Handheld Business Object Filters” on page 89](#)
- [“Examples of Default Business Object Declarations” on page 90](#)

### Developing Data Filters for Handheld

The following general steps are recommended for developing Handheld synchronization filters.

- Identify the screens and views of your application. Then identify the business components that are required to support each screen and view, noting the areas where each business component occurs. For example, identify the form, list, or pick applets that are based on each business component.
- Within Siebel Tools, establish the base parent-child relationships and any reverse relationships at the component level.
- Review the business components that occur in picklists and consider creating business component filters for those that will cause large numbers of records to synchronize to the device. These filters are created and maintained in the Mobile Administration screens. For each business component, determine whether it is possible to apply a search specification to all instances of the business component within the Siebel Handheld application. Develop a set of suitable business component filters in the Mobile Administration screens.

Common examples of business components that are suitable for global business component filters include:

- Employees (for large organizations)
  - Activities (for example, filter for current Activities, Activities of only certain kinds)
  - Accounts (for example, by geography)
  - Products (for example, active, orderable products)
  - Orders (for example, open, closed in last three months)
- Create appropriate business object synchronization filters for each business object and make sure that each business object includes a default filter. Default filters make sure that users avoid accidental download of an excessive number of records.

# Constructing Business Component and Business Object Filters

Business component filters are used to limit the extraction of a business component for every context in which it is extracted.

## Example of Business Component Filter Syntax:

Business component filters use query by example (QBE) syntax.

```
[Status] = "Not Started" OR [Status] = "In Progress" OR ([Status] IS NULL) OR [Status] = "On Hold" OR ([Status] = "Done" AND [Done] >= Today() - 7)
```

For more information on QBE syntax, see *Siebel Developer's Reference*.

Business object filters are used to supply filters that a user can select at sync time. These are the filters that are displayed in the SetFilters dialog on the device.

## Example of Business Object Filter Syntax:

Business object filters use predefined query (PDQ) syntax.

PDQ syntax rules are as follows:

- The business component name should be a valid business component in the business object on which the PDQ is based
- Search and Sort can be specified for all active buscomps in the business object on which the view is based, appended to each other in any order using space as delimiter.

The normal search spec and sort spec syntax applies except that quotes in the search spec have to be escaped using double quotes since the search spec itself is enclosed in double quotes.

The syntax is as follows. Descriptions of the terms are shown in [Table 22](#).

```
'Account'.Search = "[State] = LookupValue ( ""STATE_ABBREV"", ""CA"" )" 'Account'.Sort = "Name, Location"
```

Table 22. Business Object Filter Syntax

Syntax Term	Description
Account	business component name
Search	key word
"[State] = LookupValue (""STATE_ABBREV"", ""CA"")"	search specs using PDQ syntax
State	field name
LookupValue	function for find an LOV value
STATE_ABBREV	LOV type
CA	LOV value
'Account'.Sort = "Name, Location"	sort spec for sorting the returned list



For more information on PDQ syntax, see *Siebel Developer's Reference*.

## Business Object Filters

All Siebel Handheld business object filters are available for selection by a user at the time of sync. Additionally, there is no naming convention for business object filters.

A default filter for a business object is indicated by checking the Default flag in the Administration-Mobile > Application Administration > Business Object Filters view of the Siebel Web client. Be sure to define a default filter for each business object in the Siebel Handheld application. If no filters are applied during the synchronization process, an unacceptably high volume of data will be downloaded to the handheld device.

**CAUTION:** You should select only one filter as the default for each business object. If two filters are marked as the default for the same business object, the actual default can be determined only by attempting to sync and selecting default filters from the sync client filter selection UI.

## Recommendations for Managing Handheld Business Object Filters

The following section provides recommendations for creating and managing filters according to synchronization methods.

### Companion Sync Deployments

Administrators typically provide their users with an initial set of Handheld business object filters and instruct them how to manage the synchronization filters themselves later. They are maintained in the Administration-Mobile > Application Administration > Business Object Filters view. This view is hidden from mobile users so they cannot create their own business object filters.

You manage these filters at the server level, then replicate any updates you make down to the companion computers via Siebel Remote. The Handheld user can then access the updated filters after performing a Companion Sync operation. For more information, see ["Setting Business Object Filters for Siebel Handheld Users" on page 52](#).

Additionally, there are several sample Handheld business object filters in the sample database, as well as in the Siebel 7.8 seed data.

### Direct Server Sync Deployments

For Direct Server Sync deployments, administrators can create user-specific business object and business component filters in the Administration-Mobile > User Administration view. For more information, see ["Setting Business Component Filters for Siebel Handheld Users" on page 50](#) and ["Setting Business Object Filters for Siebel Handheld Users" on page 52](#).

Both application-level and user-level filters can be used in this deployment. They are managed in the same set of views. Changes to any filters will be effective on your next sync session, without having to restart the Handheld synchronization OM component.

These business object filters are made available to all end users and, therefore, must be defined with the needs of all end users in mind.

## Examples of Default Business Object Declarations

You can set default business object declarations in the Administration-Mobile > Application Administration > Settings screen, as described in the following examples.

### Example 1

"State Model" default business object setting:

```
State Model - Engine|0||State Model|[BusComp Name]="Expense"|State Model -  
Transition||State Model - State||State Model - Position|
```

The first three segments of the declaration are followed by a series of repeating BusCompName Search Spec pairs:

- 1 Business object name
  - 2 Visibility Type
  - 3 (Siebel internal)
  - 4 Root business component name
  - 5 Search spec QBE for root BusComp records
  - 6 Child business component name
  - 7 Search spec QBE for child BusComp records (this should normally be empty, causing all children to be extracted)
  - 8 Grandchild business component name
  - 9 Search spec QBE for grandchild BusComp records (this should normally be empty, causing all grandchildren to be extracted)
- and so on

The total number of fields must be at least 5 and must be an odd number.

### Example 2

```
Action|0||Action||Action Employee|
```

This example default business object declaration results in an extraction of the Action and Action Employee business components where they occur with visibility 0 using the business object filter indicated. The business object filters are generally used only for extracting business components that do not correspond to any views or applets. Business object declarations identify specific business components within the business object to be extracted. The business object filters normally give a query based on the primary business component in the business object and force extraction of any business components mentioned in the query when there is no corresponding applet within the application that can cause the desired extraction to occur.

### Example 3

In the following example, the declaration is used to extract all the Price List Line Items under the Order Entry (Sales) business object.

```
DefaultBusObjs13= Order Entry (Sales)|0||Price List Item|
```

Note that this declaration lacks an associated QBE clause. When this is the case, all of the records available to the user for the given visibility are extracted.

Exercise caution when modifying a default business object setting for pick applets, and do so only with the support of a skilled Siebel configurator.

Use default business object declarations to force the extraction of data for a given business component in the context of a given business object and Visibility type. For more information on visibility designations, see ["Designating Visibility" on page 91](#). The default business object extractions are performed in the first phase of data extraction.

You will most often use these declarations to extract additional data that is not extracted as part of the user interface extraction. This may be useful for business components that are referenced programmatically by other business components, but are not exposed in the user interface. The default business object declarations are used to enforce the extraction of a subset of data to the handheld that would not have been otherwise extracted or, most commonly, to filter the data downloaded for dynamic picklists or pick applets.

All pick data is not downloaded to the device due to the memory constraints on the device. Only pick data for fields that are editable is downloaded. Therefore, if you are doing a query on a pick field, you may not be able to display the picklist. When viewing a record in an applet, if a pick field is read-only, its pick button will be disabled. If end users select a read-only field with a pick control, they receive the following error: "No data available in picklist because field is read-only."

## Designating Visibility

It is very important that you use the correct visibility designation in the default business object declarations. The visibility entered should be the visibility that governs the data displayed for the business component within the context of the business object specified in the declaration. In the previous Example 1, visibility code 3 is designated. This corresponds to All Visibility, which is the visibility that applies to the Account business component when it is used in a pick applet.

You determine the correct visibility to use by examining View and business component properties within Siebel Tools. When creating a default business object declaration to restrict the volume of data extracted for a pick applet, begin by examining the Popup Visibility Type in Business Component Properties. Cross-reference the visibility type to the list below, and enter the appropriate visibility code in the declaration. If the Popup Visibility Type field on the business component is null, the default value is All. [Table 23](#) summarizes popup visibility types and the corresponding visibility codes.

Table 23. Visibility Codes

Popup Visibility Type	Visibility Codes
Sales Representative	0
Manager	1
Personal	2
All	3
None	4
Organization	5
Contact	6

**NOTE:** Do not use the Group, Catalog, or Sub Organization Popup Visibility Types. These are not supported in the CE handheld applications.

## Overriding the Popup Visibility

If the Popup Visibility Type setting is not sufficiently restrictive (for example, All Visibility), this can lead to a large number of records being extracted when the picklist is processed during synchronization. Making the Popup Visibility Type more restrictive reduces the number of records extracted for picklists. The `OverridePopupVisibility` user property for an applet overrides the Popup Visibility Type on a business component. Use this property when the desired visibility differs from the business component’s Popup Visibility Type, and you do not want to change the Popup Visibility Type. If several picklists use the same business component, you can also use the `OverridePopupVisibility` user property to vary the visibility of the picklists in the different applets.

There are two considerations you should keep in mind if multiple applications are sharing the same repository. First, changing the Popup Visibility Type has a global effect for all instances where the business component is used. If multiple applications share the same repository and use the same business components, changing the Popup Visibility Type for a common business component could have an undesirable effect for another application. Second, if multiple applications share the same applet, the picklist in each applet shares the same visibility as defined by `OverridePopupVisibility` property. This is because the `OverridePopupVisibility` property is set on the containing applet.

In Siebel Tools, navigate to Applet > Applet User Properties, and define the OverridePopupVisibility user property on the applet containing the control that opens the pick applet. See [Table 24](#) for a description of the syntax. Assign a value to this property using the syntax shown, where <buscomp field n> is the underlying business component field of an applet control or column, and <visibility type> is the code corresponding to the desired visibility of the picklist’s business component. (See [Table 23](#) for a list of the visibility codes.) Because the name of the OverridePopupVisibility parameter must be unique, append a unique number to the name of the parameter for any other picklists, for example, OverridePopupVisibility1, OverridePopupVisibility2, and so on.

Table 24. OverridePopupVisibility Syntax

Name	Value
OverridePopupVisibility	<buscomp field 1>, <visibility type>
OverridePopupVisibility1	<buscomp field 2>, <visibility type>
OverridePopupVisibility<n>	<buscomp field n + 1>, <visibility type>

**NOTE:** If OverridePopupVisibility is used, then the picklist and pick applet search specifications are ignored during synchronization when the records for the picklist are extracted.



# 6

## Deployment of Siebel Handheld

This chapter includes the following topics:

- [“Overview of Server Installation in Support of the Siebel Handheld Client” on page 95](#)
- [“Process of Server Installation for Siebel Handheld Direct Server Sync” on page 97](#)
- [“About Siebel Handheld Synchronization Performance and Scalability” on page 100](#)
- [“Process of Installing the Siebel Handheld Application” on page 102](#)
- [“Installing Print Templates in the Siebel Handheld Install Directory” on page 107](#)
- [“Setting Up Siebel Handheld Application Installation on a CompactFlash Card” on page 107](#)
- [“Changing the SyncURL on Siebel Handheld Devices” on page 108](#)
- [“Installing the Siebel Handheld Application from External Media” on page 108](#)

### Overview of Server Installation in Support of the Siebel Handheld Client

This section provides an overview of important factors to consider when planning Direct Server Synchronization (DSS) infrastructure. One aspect of successful planning and execution of a Siebel Handheld DSS deployment is to understand hardware and network requirements. While these factors are generally applicable to all deployments, there are unique aspects to each customer configuration and implementation strategy. Therefore, it is highly recommended that customers conduct detailed configuration, sizing, and production readiness reviews with Siebel Expert Services. This is especially important for complex deployments, such as those supporting large numbers of users over wide geographic areas.

You can also improve the performance and scalability of DSS deployments by working with the Siebel application server component parameters. For more information about the Siebel application server, see [“Optimizing Server Process Management for Direct Server Sync” on page 100](#).

**NOTE:** The recommendations in this chapter are general ones and are intended to raise your awareness of the key factors in handheld synchronization, performance, and scalability. These factors must be confirmed for your actual environment, and the usage patterns in your enterprise should be taken into consideration.

## Server Topology Overview

The diagram in [Figure 2](#) shows the servers and components that are required to deploy Direct Server Sync. The components are the Siebel database, Siebel server, Siebel Web engine, and Siebel Handheld. The synchronization components are the Siebel Sync Engine which resides on Siebel server and the Sync client on Siebel Handheld.

**CAUTION:** Companion Sync uses Siebel Remote to complete the synchronization process to the Siebel server from the laptop. The remote mobile user's routing model must be set to Handheld User. Otherwise, sync will fail. For more information, see *Siebel Remote and Replication Manager Administration Guide*.

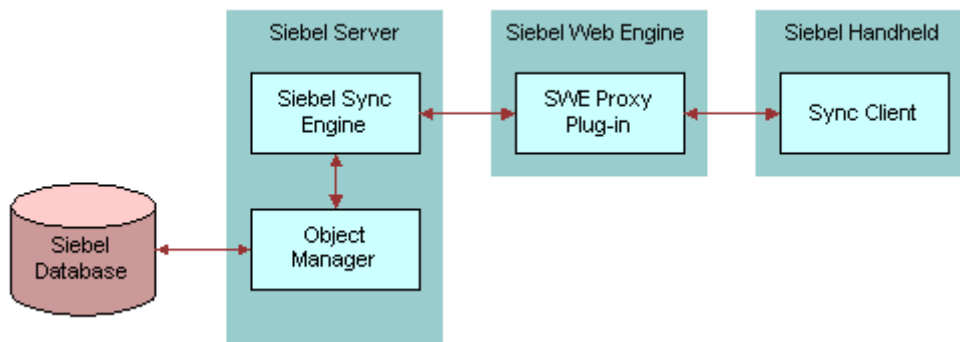


Figure 2. DSS Servers and Components

## Recommended Hardware and Network Configuration

There are many factors to take into account when designing and implementing your server and network hardware and architecture, and sizing your database. The critical factor in sizing a handheld implementation is the expected peak synchronization load. Specific application variables to consider in calculating this load are: the number of concurrent users, number of transactions, and size of the data file. These variables should be considered within the context of the hardware specifications, including memory and processor speed.

The following resources are available as you plan your Siebel Handheld implementation:

- Refer to Microsoft and manufacturer documentation for comprehensive information on server hardware and registry parameters.
- Refer to Siebel Technical Note 405 for specific recommendations on the following topics:
  - Server Architecture
  - Server Hardware and Registry Parameters
  - Database Server Sizing
  - Database Tuning
  - Dial-Up and Network
  - Wireless
  - VPN (Virtual Private Networks)



- The Expert Services Handheld Review Package assists customers with planning their hardware and network for handheld implementations. Contact Siebel Expert Services for more information about this program.

## Process of Server Installation for Siebel Handheld Direct Server Sync

The server components that are required for Siebel Handheld are installed when you install the Siebel server. See the Siebel Server installation guide for your operating system for details on installing and configuring Siebel server. The Siebel server installer copies the necessary DLLs to create an Object Manager for Direct Server Sync and creates and configures a Server Component and Component Group. The rest of this subsection describes which options you must select to correctly install the software, along with creating or configuring additional Object Managers.

This process includes the following tasks:

- ["Installing the Direct Server Sync Components Using the Siebel Server Installer" on page 97](#)
- ["Configuring Direct Server Sync Logging Levels" on page 98](#)
- ["Optimizing Server Process Management for Direct Server Sync" on page 100](#)

### Installing the Direct Server Sync Components Using the Siebel Server Installer

Install the Siebel server, following the instructions in the Siebel server installation guide for the operating system you are using. When you reach the Setup Type screen in the Installer wizard, you are presented with three installation options:

- **Typical.** This setup option installs all Siebel server components except those displayed.
- **Compact.** This setup option installs only those components necessary to run the Siebel server, but no additional components or help.
- **Custom.** This setup option lets you customize your installation by choosing the specific components you want to install.

#### *To install the Direct Server Sync components with your Siebel Server installation*

- 1 During the Siebel Server installation, when the Setup Type screen appears, choose the Custom setting, and then click Next.

**NOTE:** At this screen, you may also choose a different directory for your Siebel server installation.

- 2 From the following components, choose Handheld Synchronization:

- Object Manager Component
- Handheld Synchronization
- Siebel Data Quality Connector

- Remote Search Support
- Siebel Java Integrator

**NOTE:** You must enable Handheld Synchronization to enable Direct Server Sync for your DSS installation.

**3** Click Next.

Continue with the installation in *Siebel Installation Guide for Microsoft Windows: Servers, Mobile Web Clients, Tools*.

The install wizard automatically installs and configures the DSS components.

## DSS Server Component Parameters

See [Table 25](#) for a list of required parameters. For information on adding DSS server components, see *Siebel System Administration Guide*.

Table 25. DSS Server Component Parameters

Parameter	Default Value	Description
ApplicationName	SiebelMedicalCE	The Siebel Handheld application. This value must match the name of the application as it is specified in Siebel Tools.
ApplicationTitle	Siebel Medical	The name of the Siebel Handheld application as shown on the title bar on the browser. This parameter is only used if the Siebel application developed for the handheld is run on the Web client.
ApplicationSplashText	Siebel Medical CE	The Siebel Handheld application name as shown on the splash screen. This parameter is only used if the Siebel Tools application developed for the handheld is run on the Web client.
ComponentName		Required for Direct Server Sync, it is entered in the registry on the handheld device.

## Configuring Direct Server Sync Logging Levels

To set the logging level, you need to perform the following two tasks:

- ["To configure server logging levels" on page 99](#)
- ["To configure server logging levels using the Server Configuration screen" on page 99](#)

You set the logging level to a value between 1 and 5 as shown in [Table 26](#).

Table 26. Direct Server Sync Logging Levels

Logging Level	Results
1	Error listing
2	Warning listing
3	Information listing, including SQL tracing
4	Information listing
5	Debug

### **To configure server logging levels**

- 1 Log into Server Manager from a (m:\siebel\bin\w32ud) prompt.
- 2 Run the following:  
change evtloglvl HandheldSyncLog=[LogLevel] for comp [OMName], where [LogLevel] = an integer between 1 - 5 (5 enables all logging) and [OMName] = the OM name (for example, <ApplicationName>CEObjMgr\_enu).

### **To configure server logging levels using the Server Configuration screen**

- 1 Navigate to Administration - Server Configuration > Servers > Components.
- 2 In the Component list, query for the appropriate component, such as Handheld Sales CE (ENU).
- 3 In the Events list, search for the event type Handheld Sync Logging.
- 4 Set the value to a number between 1-5 and then save the change.  
See [Table 26](#) for logging level results.

## **Configuring Companion Sync Logging Levels**

To enable logging for Companion Sync process, you must add a parameter to the [pda] section of the CFG file.

### **To configure Companion Sync logging levels**

- 1 Navigate to \client\bin\enu (or other language directory, such as \client\bin\fra).
- 2 Add the parameter HandheldSyncLogLevel and a valid value (1-5) to:  
medicalce.cfg. For example, HandheldSyncLogLevel = 5.  
See [Table 26](#) for logging level results.

## Optimizing Server Process Management for Direct Server Sync

Several parameters are outlined below that help optimize server processing for Direct Server Sync.

### *To set parameters to optimize server process management*

- 1 Log into the Siebel client as a user with Administrative responsibility.
- 2 Navigate to Site Map > Administration - Server Configuration > Servers > Components > Parameters.
- 3 In the Component Parameters sub-view, query for SalesCEObjManager.
- 4 Use the following table to update the parameters.

Parameter	Description
Max Tasks	Determines the maximum number of threads that can run concurrently for a given component. You should set the value of this parameter to a number equal to that of the expected peak number of concurrent synchronizations.
Min MT Servers	Determines how many multithreaded server processes are started by default for the Siebel Object Manager.
Max MT Servers	Defines the maximum number of processes supported by the instance of the Siebel Object Manager. The value for this parameter should be the same as Min MT servers and should be set so that threads per process (Max Tasks/Max MT Servers) is optimized.

## About Siebel Handheld Synchronization Performance and Scalability

There are a number of factors that affect the performance and scalability of handheld synchronization. It is very important that administrators and those involved in the design and deployment of Siebel Handheld understand the impact of usage parameters on synchronization performance and scalability. For more information, see Technical Note 405 for application-specific variables affecting synchronization and data from synchronization scalability tests.

### Using Multiple Synchronization Servers

As you scale your deployment, you may need to use multiple synchronization servers to accommodate all of your users. Your end users must be manually assigned to a particular server. Resonate products cannot be used for load balancing. Refer to Technical Note 405 and to your hardware manufacturer's documentation for more information on scaling deployments.

## Providing Synchronization Security with Secure Sockets Layer

The synchronization data stream can be secured using Secure Sockets Layer (SSL). To employ SSL security:

- Make sure that a certificate has been created and installed on all Web servers that service handheld synchronization.

Use the following steps to install the root certificate on each handheld device.

### ***To install the root certificate on the handheld device running PPC 2003 or newer***

- 1 Navigate to the certificate authority server from your desktop computer.
- 2 Select the first option (retrieve the CA certificate or certificate revocation list), and click Next.
- 3 Click on Download CA certificate.
- 4 Click Save, and save as certca.cer on your desktop.
- 5 Use ActiveSync to copy the downloaded certificate, certca.cer, from the desktop to the My Documents folder on the handheld device.

**NOTE:** Make sure the certca.cer file is copied into the My Documents folder.

- 6 Go to My Documents and tap the certificate icon.

The certificate should be installed. You can validate it by going to Settings > System > Certificate.

- 7 Click the Root tab.

You should see the new certificate on the list.

- 8 Open up a browser and run the following command, substituting the appropriate server name, application name, UserName and Password (in red below).

```
https://<SERVERNAME>/<APPLICATION NAME>/  
start.swe?SWEEExtSource=siebelpda&SWEEExtCmd=ExecuteLogin&UserName=<USER  
LOGIN>&Password=<PASSWORD>
```

- 9 When a dialog appears, click Yes.

### ***To complete root certificate installation on PPC 2002 device***

- 1 From a web browser, navigate to the Microsoft Web site and download and launch the following executable file:

AddRootCert.exe.

- 2 Double-click to open the executable file.

A list of certificates appears.

- 3 Select certca.cer.  
Information for the certca.cer Certificate appears.
- 4 Click Install Certificate.
- 5 Following successful installation, click OK.

## Process of Installing the Siebel Handheld Application

Before you deploy the Siebel Handheld application, there are several tasks you need to perform.

**NOTE:** If you are setting up your Siebel Handheld application to allow end user translation functionality, see ["Installing and Setting Up End User Translation Functionality"](#) on page 33.

This process includes the following tasks:

- ["Editing the Handheld Application Installation Configuration File"](#) on page 102
- ["Enabling Handheld User Database Backup"](#) on page 105
- ["Deploying Patches to the Handheld Application with Direct Server Sync"](#) on page 109
- ["Deploying Handheld Application Patches with Companion Sync"](#) on page 110
- ["Creating Handheld Application Upgrade Kits for Companion Sync PDA"](#) on page 111
- ["Downloading Patches to the Handheld Device"](#) on page 112

## Editing the Handheld Application Installation Configuration File

The Siebel Handheld application setup.ini file configures the Siebel Handheld Client application installer. Before you deploy a custom-configured Siebel Handheld application, you must update the parameters in the setup.ini file so that the correct values are written to the device registry before distributing the client installer to end users.

The setup.ini file resides in the Siebel Handheld application directory. To modify this file, create a Siebel Handheld installation directory on the network, or create and duplicate a custom DVD-ROM for distribution to end users. This installation directory must include the same files and directory structure as the original DVD-ROM. Then, modify the setup.ini file in the custom installation directory.

**NOTE:** If you wish to set up parameter values other than default values, add the parameter to the setup.ini file and add the proper values.

Table 27 lists the parameters that you may need to modify in the setup.ini file, their default value, and a description of the parameter.

Table 27. Siebel Handheld setup.ini Parameters

Parameter	Default Value	Description
Version	7.8	Version of the desktop Siebel application against which the Siebel Handheld version synchronizes.
Application Title	SiebelMedicalCE	The Siebel Handheld application. This value must match the name of the application as it is specified in Siebel Tools.
ApplicationName	SiebelMedicalCE	The Siebel Handheld application. This value must match the name of the application as it is specified in Siebel Tools.
ApplicationSplashText	SiebelMedicalCE	The Siebel Handheld application name as shown on the splash screen.
EnableRemote	N	Used for Integrated Sync. The default value is "N". Valid values are "Y" = [Enable Remote Sync] checkbox is selected, "N" = [Enable Remote Sync] checkbox is unselected in handheld sync window.
MultiCurrency	True	Required for the application to handle multiple currencies.
SyncURL	<i>http://Web Server Name or IP address/ Virtual Directory Name</i>	Required for all synchronization methods. This value is entered in the registry on the handheld. See <a href="#">"Changing the SyncURL on Siebel Handheld Devices"</a> on page 108 for more information on this parameter.
[EndUserLocalization] Section		
User DefinedLang	Y	
LogUserDefinedLangErrors	N	
[Printing] Section		See <a href="#">Appendix E, "Print Configuration Settings,"</a> for more information on the parameters used to configure printing.
[Backup] Section		Enables handheld database backups.  See <a href="#">"Enabling Database Backup"</a> on page 106 for more information on settings for the parameters in this section of the setup.ini file.

Table 27. Siebel Handheld setup.ini Parameters

Parameter	Default Value	Description
[ApplicationLocation] Section		Specifies where the Siebel Handheld application and database are installed.  See <a href="#">"Setting Up Siebel Handheld Application Installation on a CompactFlash Card" on page 107</a> for more information on the parameters in this section of the setup.ini file.
InternetOptionReceiveTimeout	600000	Length of time to receive data (except data extraction) from the server before the handheld client times out. This parameter only applies to synchronizations using Direct Server Sync.  In milliseconds. The default value, 600000, is 10 minutes.
InternetOptionSendTimeout	600000	Length of time to send data to the server in a single call the handheld client times out. This parameter only applies to synchronizations using Direct Server Sync.  In milliseconds. The default value, 600000, is 10 minutes.
InternetOptionDataExtractionTimeout	900000	Length of time to extract data from the server to the handheld device the handheld client times out. This parameter only applies to synchronizations using Direct Server Sync.
[Logging] Section		
TXNErrorLevel	1	This level controls the extent of transaction error information received from the server. The default value is 1. Valid values are 0 = no log information, 1 = report txn errors in the client log, txnerror.hh. A "Transaction Errors Reported" message appears during sync when txn errors occur. To view errors, double click the message.



Table 27. Siebel Handheld setup.ini Parameters

Parameter	Default Value	Description
DefaultLogLevel	2	<p>The default value is 2. You can set the value to any of the following:</p> <ul style="list-style-type: none"> <li>-1 = NO LOGGING</li> <li>0 = LOG_SYSTEM</li> <li>1 = LOG_ERROR</li> <li>2 = LOG_WARNING</li> <li>3 = LOG_INFO, INCLUDING SQL TRACING</li> <li>4 = LOG_DEBUG</li> </ul> <p>The log messages with level equal to or lower than the set value will be logged. For example, if the default log level is set to 2, the messages belonging to System, Error, and Warning log levels will be logged. If the DefaultLogLevel is -1, no logging will be provided.</p>
MaxLogFileSize	2000	<p>This is the maximum log file size in KB. If the program finds the size of the latest log file is greater than this value, a new log file should be used for logging.</p>
MaxSavedLogFiles	3	<p>Determines the number of log files to save on the device. It does not include the one currently used by the program. If the value is set to 2, then the valid log file names are siebel_log.txt, Siebel_log1.txt, and siebel_log2.txt. Siebel_log.txt is the current log file. Siebel_log1 is an older one and Siebel_log2 is the oldest.</p>
PressureThreshold	29	<p>Prompts user to restart application after 30 visits, thereby freeing application memory.</p>

## Enabling Handheld User Database Backup

Siebel Handheld infrastructure provides a way to automatically back up a snapshot of the user’s database and current settings, and to restore those settings in the event of a total device failure. The backup functionality automatically copies all the necessary files to a single compressed file. Each time the user backs up, the backup process creates a new copy of the file and deletes older backups. The backup process must close the application in order to copy the RDBMS and handheld configuration files. After the files are copied, it automatically restarts the application.

The backup feature must be enabled in the application. If the backup feature is enabled, a backup is created during every synchronization. This way, the user retains an up-to-date snapshot of the database, and older backup versions are removed.

When the database backup feature is enabled, a database backup occurs automatically at the end of each synchronization. This makes the overall time to synchronize somewhat longer. The size of the database and the speed of the CompactFlash card also affect the time it takes to complete synchronization.

**NOTE:** Backups should not be used as a replacement for synchronization.

### Setting Up Database Backups

In order to back up the database you must do the following:

- Provide users with an external memory card.
- Install the Siebel Handheld application with the backup functionality enabled. See, ["Enabling Database Backup" on page 106](#).
- Instruct users to back up their database on a regular basis.

### Backing Up to External Media

It is recommended that you back up to external media—for example, a CompactFlash card or the embedded backup storage that is included in many devices.

### Enabling Database Backup

Before users can back up the database on their handheld devices, you must first enable the Backup menu item on the Siebel Handheld application. This requires editing the setup.ini file to enable backup.

**NOTE:** Backup should be kept on external media or built-in storage. Trying to set the location to the main memory, such as `\My Documents`, will not work.

The following is an example of the default settings for the backup parameters:

```
[Backup]
BackupLocation = \Storage Card\Siebel Backup
BackupEnabled = N
```

- BackupEnabled = [Y/N] The default is N (No). Change this setting to Y (Yes) to enable the Backup menu item and to trigger a backup to occur automatically after each synchronization.

If the product is installed with Backup = N, the backup menu item is disabled. You need to change the parameter, then reinstall the product in order to enable the menu item.

- BackupLocation = [Backup location] The default is an external storage card. Specify the location where you want the data backed up.

For more information on the setup.ini file, see [Chapter 8, "Installing the Handheld Application."](#)

## Restoring from a Backup

For information on restoring a database from a backup, see [“Backing Up and Restoring Data with the Siebel Handheld Client”](#) on page 131.

# Installing Print Templates in the Siebel Handheld Install Directory

If your application allows printing, you must include all print templates in the template subdirectory of the Siebel Handheld Install directory. The print templates are language-specific, so copy the templates to the template subdirectory within the language directory of the language you are deploying (for example, ...\\ENU\\Template). If the template includes double byte characters, such as Japanese string, you must save the template files as Unicode (UTF16) files. For supported language codes, see *System Requirements and Supported Platforms* on Siebel SupportWeb.

See [Appendix E, “Print Configuration Settings”](#) for more information about Printing.

# Setting Up Siebel Handheld Application Installation on a CompactFlash Card

The default, when installing Siebel Handheld applications, is to install both the application and the database into RAM on the device. In most instances, there is sufficient available memory, and end users are satisfied with the application performance. There are situations, however, where you may need to optimize storage on the device.

If you need to maximize main memory availability, you can install the application binary files on an external location such as a CompactFlash card. Installing the data on the CompactFlash card is not recommended because performance likely degrades.

You can specify, in the application’s setup.ini file, where the application files and database files are to be installed. By default, this is set to the handheld device. In the ApplicationLocation section of the setup.ini file, there are two parameters. The following shows the default settings for these parameters:

```
[ApplicationLocation]
ApplicationBinariesLocation = Device
ApplicationDataLocation     = Device
```

- ApplicationBinariesLocation = Device. The default is Device. The other value is CF (CompactFlash).
- ApplicationDataLocation = Device. The default is Device. It is recommended that you always install the data files on the device.

After you have edited the setup.ini file, follow the instructions for installing the Siebel Handheld application on the client.

## Changing the SyncURL on Siebel Handheld Devices

For Direct Server Sync (DSS), SyncURL is used to locate the Web Server and the virtual directory so that the handheld synchronization client can communicate with the handheld synchronization server. For example:

SyncURL = http://web server name or IP address/virtual directory name

You can reset the SyncURL by re-installing the application with the updated setup.ini file.

For Companion Sync set up, the SyncURL parameter identifies the configuration file that will be accessed on the handheld client for synchronization.

For example, the default configuration file for Medical Handheld is named medicalce.cfg. For companion sync set up, the SyncURL value should be http://xxx/medicalce where xxx could be any text string.

## Installing the Siebel Handheld Application from External Media

Users who synchronize in DSS mode may not have a PC, and so may not be able to create a partnership and synchronize using Microsoft ActiveSync. You can install the application for each user through a standard partnership, or you can configure a stand-alone installer.

During the installation, the InstallShield Wizard screen prompts you by asking,

would you like to deploy a CAB file to enable rapid installation for additional devices?

You can configure a stand-alone installer by selecting Yes.

You are prompted to select a language for the application and to specify a location for the CAB file. The installer creates the CAB file in the location you specify.

The CAB file is a self-extracting file that includes all the files needed to install the Siebel Handheld application on the handheld device. When you single-click the file, the CAB file installs the application.

You may create an image of the Handheld Installer that can be loaded onto external media such as a CompactFlash card. When you create a stand-alone installer platform, a Cabinet file (CAB) is created in a location that you specify. The CAB file name should be siebel.pocketpc\_arm.CAB. You can copy the CAB file to a CompactFlash card, insert the card into the handheld device, and single-click on the file to install the Siebel Handheld application on the device.

**NOTE:** When installing the application on the device, the end user is asked if he or she wants to install the application in the default directory. Regardless of the user's answer, the application is always installed in the directory specified by the setup.ini file. Therefore, the only way to change the directory the application is installed in is to modify the parameters in the ApplicationLocation section of the setup.ini file.

# Distributing Siebel Handheld Application Patches

The Siebel Handheld patch delivery mechanism, PatchAgent, is a tool that automates the deployment of patches to handheld devices as part of the synchronization process. It allows administrators to distribute patches to end users with minimal involvement by the users.

During synchronization the PatchAgent executable is called, and if it detects a handheld patch, it automatically installs the patch on the handheld device. In order for PatchAgent to detect and deploy the patch, the patch files must be created and placed in the directory where PatchAgent expects to find the files.

## Deploying Patches to the Handheld Application with Direct Server Sync

In order to set up patch deployment for Direct Server Sync users, you need to patch the Siebel server and patch one handheld client which serves as the “model” from which patch files are pulled. Then the patch files are then packaged and placed in the location on the server where PatchAgent expects to find the files. The next time the end user synchronizes with Siebel server, the patch is installed onto his or her device.

For more information on how the patch process works with synchronization, see [“Downloading Patches to the Handheld Device” on page 112](#).

### To set up patch deployment

- 1 On Siebel server, verify that the following directories exist. If they do not, create the directories.
  - C:\patch\AppBinDir
  - C:\patch\WinDir

**NOTE:** You may specify a drive other than C:. However, the directory names must be specified as shown above.
- 2 Apply the patch to Siebel server.
- 3 Apply the patch to one handheld client.
- 4 Examine the handheld directory (My Device\Program Files\Siebel Handheld) and copy the files with the latest date to the Siebel Server directory (C:\patch\AppBinDir).
- 5 Examine the handheld directory (My Device\Windows) and copy the files with the latest timestamp to the Siebel Server directory (C:\patch\WinDir).
- 6 From the DOS prompt, change directory to *Siebel Root*\SWEApp\BIN.
- 7 Execute the following command to stage the patch files and the patchlist.txt in the correct location on the server:

```
C:\Siebel Root\SWEApp\BIN>createpatchlist /s c:\patch /t c:\Siebel  
Root\sweapp\cepatch
```

/s – source directory. The directory where the patch files were moved.

/t – target directory. The directory where PatchAgent checks for the patch files.

**NOTE:** You may specify a drive other than C:. However, the location of the source and target directories must be specified exactly as shown.

After the patch files have been moved and the patch list created, the following message appears: "Patch List has been successfully created in *Siebel Root\SWEApp\cepatch* files transferred successfully."

The patch files are now ready to be deployed to Direct Server Sync end users.

## Deploying Handheld Application Patches with Companion Sync

In order to set up patch deployment for Companion Sync users, you need to create a "model" of a patched Siebel Mobile Web Client and a patched handheld client. Then you pull the designated patch files and place them in the correct directory on the end user's Mobile Web Client. You may use Siebel Anywhere to create upgrade kits to automate this process of distributing patch files to your end user's Mobile Web Client. The next time the end user uses Companion Sync to synchronize their handheld device with the Siebel Mobile Web Client, the patch is installed on the device.

For more information on how the patch process works with synchronization, see ["Downloading Patches to the Handheld Device" on page 112](#).

### To set up patch deployment

- 1 On Siebel server, verify that the following directories exist. If they do not, create the directories.
  - C:\patch\AppBinDir
  - C:\patch\WinDir
- 2 Apply the patch to Siebel server.
- 3 Apply the patch to Siebel Mobile Web Client.

This Mobile Web Client serves as the model from which the patch files can be pulled.
- 4 Apply the patch to one handheld client.

This handheld client serves as the model from which the patch files can be pulled.
- 5 Examine the handheld directory (My Device\Program Files\Siebel Handheld) and copy the files with the latest date to the Siebel Server directory (C:\patch\AppBinDir).
- 6 Examine the handheld directory (My Device\Windows) and copy the files with the latest timestamp to the Siebel Server directory (C:\patch\WinDir).
- 7 From the DOS prompt, change directory to C:\Siebel Root\SWEApp\BIN.

- 8 Execute the following command to move the patch files to the correct location and generate a patchlist.txt file:

```
C:\Siebel Root\SWEApp\BIN>createpatchlist /s c:\patch /t c:\Siebel
Root\sweapp\cepatch_xxx (where xxx is the language [enu, esn, and so on])
```

/s – source directory. The directory where the patch files were moved.

/t – target directory. The directory where PatchAgent checks for the patch files.

**NOTE:** You may specify a drive other than C:. However, the location of the source and target directories must be specified exactly as shown.

After the patch files have been moved and the patch list created, the following message appears: “Patch List has been successfully created in *Siebel Root\SWEApp\cepatch\_xxx* files transferred successfully.”

- 9 Create the following directory on the end user’s Mobile Web Client: *Siebel Root\client\cepatch\_xxx* (where xxx is the language [enu, esn, and so on]), and push the files from the *\Siebel Root\SWEApp\cepatch\_xxx* directory on Siebel server to the *Siebel Root\client\cepatch\_xxx* on the Mobile Web Client.

**NOTE:** Siebel Anywhere upgrade kits can be used to carry out this step.

## Creating Handheld Application Upgrade Kits for Companion Sync PDA

**NOTE:** This step is optional. Additionally, you must have a license for Siebel Anywhere to distribute patches to end users.

You may use Siebel Anywhere upgrade kits to remotely distribute self-extracting zip files to your end users’ PCs. You can use self-extracting zip files to create new directories and immediately extract files into the directories. Create one upgrade kit for each of the following:

- Create the Siebel Mobile Web Client upgrade kit (Siebel Client Revisions).

Navigate to the Siebel image location for the current software version such as D:/Siebel\_Install\_Image/7.8.1.0, and then navigate to the patch directory. Configure the zip file to self-extract in the *Siebel Root\client\BIN* directory on the end user’s Mobile Web Client.

- Create the Siebel Handheld upgrade kit (Siebel Client Revisions).

Create a self-extracting zip file that includes the files in the *Siebel Root\SWEApp\cepatch* directory on the server. Configure the zip file to self-extract in the *\client\cepatch* directory on the end user’s Mobile Web Client.

- Create any other upgrade kits as needed (for example, the Siebel Customer Repository File).

See *Siebel Anywhere Administration Guide* for detailed information on creating upgrade kits.

**NOTE:** If there are read-only files on the Mobile Web Client, the end user may need to change the file attributes to read-write before receiving and installing the upgrade kits. Contact Siebel Technical Support for the list of files whose attributes need to be changed. You may use Siebel Anywhere to distribute a batch script that makes this change.

## Downloading Patches to the Handheld Device

Patches are downloaded as part of the synchronization process. Once the patch is staged, the patch is downloaded the next time the end user synchronizes the handheld with Siebel server. The end user synchronizes as he normally would using Direct Server Sync or Companion Sync. First, any transactions are uploaded from the handheld device. Then:

- If a patch needs to be applied to the handheld, the synchronization process terminates, and the patch process is started, which downloads the patch.
- If no patch needs to be applied, the synchronization process continues until the process is complete.

After a successful patch installation, Siebel Handheld Sync will launch automatically and continue the extraction.

If the patch files are not successfully downloaded, the end user is prompted to restart the patch process. The end user must locate and launch patchagent.exe manually. Then, once the patch is successfully installed, the end user is prompted to complete the synchronization.



# 7

## Synchronization Conflict Handling and Recovery with Handheld

This chapter includes the following topics:

- [“Preventing Synchronization Transaction Conflicts with Siebel Handheld” on page 113](#)
- [“Recovering Error Data in Siebel Handheld” on page 118](#)

### Preventing Synchronization Transaction Conflicts with Siebel Handheld

When multiple end users synchronize with a remote database, transaction conflicts may occur which can result in data loss. The Extended Pick and Insert Failure functionality minimizes synchronization conflicts. If transaction conflicts are unavoidable, then Siebel Handheld Sync Service captures the transaction information so that the data can be recovered. The combination of these features eliminates the potential for data loss.

There are two features that minimize synchronization transaction conflicts.

- Extended Pick processing
- Insert Failure processing

The next several sections describe these features in detail.

#### Extended Pick Processing in Siebel Handheld

The handheld is used to capture and record transactions entered by the handheld user. During synchronization, these transactions are processed on the server. A situation may arise in which a transaction fails when it is applied to the Siebel server (through Direct Server Sync) or Siebel Mobile Web Client (through Companion Sync)—both of which are referred to as server. For example, a Siebel Handheld user creates a professional call activity for one of his contacts. However, since he last synchronized with the server, the contact involved in this transaction was deleted from the server database. When he tries to synchronize his handheld, the server does not find his contact, and the call activity for the contact cannot be inserted into the server database. To generalize this example, any transaction that involves data selected through picklists or pick applets fails on the server if that pick data is not present at the time of synchronization.

With many handheld users synchronizing with Siebel server and modifying data at different times, this scenario is not uncommon.

The following describes how a pick transaction is recorded on the handheld device and processed on the server during synchronization. Assume that the handheld user wants to create a new call activity for the contact. In order to do this, the user inserts a new record in the Professional Call screen and “picks” the desired contact. When the contact is selected on the handheld, the Row Id of the contact (Contact Id) is recorded. However, on the handheld, the application does not record any of the pick map fields associated with the contact; only the Contact Id is recorded. When the user synchronizes his handheld, that Contact Id is used to locate the contact record in the server database. The Contact Id is then used to retrieve all of the fields used in the pick map for the Contact Id (Last Name, First Name, Middle Initial, Address, City, State, Zip Code, and so on).

In order to minimize pick processing failures, the handheld must record the pick row Id and all of the pick map data that is required for a successful transaction. This data must be recorded at the time of the pick, so that it can be passed to the server for processing. This enhanced functionality is called Extended Pick processing. Now, when the user synchronizes, the transaction is processed on the server as follows:

- The synchronization process first looks for the pick record on the server database. For example, to add an activity it looks for the contact and, if it finds the contact, it retrieves the necessary data and adds the activity. This is the default behavior.
- If the server does not find the pick map record in the database and extended pick processing is enabled, it retrieves the pick record Id and pick map data from the handheld transaction and applies the data directly to the server.

## Enabling Extended Pick Processing in Siebel Handheld

You can enable Extended Pick processing globally or at the business component level when configuring the Siebel Handheld application. When the *DefaultHandheldSyncPickMode* parameter is enabled every handheld pick transaction is subject to pick processing.

### ***To enable extended pick processing globally***

- 1 From the application-level menu, choose Navigate > Site Map > Administration-Mobile > Application Administration.

- 2 Click the Settings view tab, then Query on the following value:

*DefaultHandheldSyncPickMode*

If there is no such record, a new record with that value should be created. See [Table 28](#) for the values to enter.

Table 28. Application Settings

Setting Name	Value	Description
DefaultHandheldSyncPickMode	NoFail	Turns Extended Pick processing ON.
	FailOnError	Turns Extended Pick processing OFF This is the default behavior if the parameter is not specified in the Settings view.

**To enable extended pick processing at the business component level**

- When enabling extended pick processing at the business component level, the user property is defined on specific business components. The syntax for setting Extended Pick on a business component and the parameter values ([Table 29](#)) follow:

*HandheldSyncPickMode=Fieldname|Mode*

Table 29. Business Component User Property Parameters

Business Component User Property	Parameter	Value	Description
HandheldSyncPickMode	<i>Fieldname</i>	—	Specify the field name as defined in Siebel Tools.
	<i>Mode</i>	NoFail	Turns Extended Pick processing ON.
		FailOnError	Turns Extended Pick processing OFF.

You may apply Extended Pick processing to multiple fields in a single business component, using the following syntax:

*HandheldSyncPickMode=Fieldname1|Mode1, Fieldname2|Mode2*

The setting on the business component takes precedence over the setting defined in the Settings view. For example, you can use the business component setting to nullify the global application of Extended Pick. Conversely, you can enable Extended Pick processing on specific business components if the setting in the Settings view has disabled the functionality.

For more information, see *Using Siebel Tools*.

[Table 30](#) shows the combined effect of the settings in the Application-Mobile > Settings View and on a business component.

- The DefaultHandheldSyncPickMode setting is omitted from application settings.

- If there is no setting on a particular business component, the setting defined in the Settings view applies.
- If there is no setting defined in the Settings view, or on the business component, the default behavior is for Extended Pick to be turned OFF.

In [Table 30](#), read down the Tools configuration column and across to the Mobile Administration View Setting to see the combined result. For example, a NoFail configuration in Tools combined with a FailOnError setting in the Mobile Administration View results in the combined effect NoFail.

Table 30. Combined Effect of Extended Pick Settings for Business Components

Tools Configuration (User Property) HandheldSyncPickMode=	Mobile Administration View Settings DefaultHandheldSyncPickMode=		
	NoFail	FailOnError	Omitted
NoFail	NoFail	NoFail	NoFail
FailOnError	FailOnError	FailOnError	FailOnError
Omitted	NoFail	FailOnError	FailOnError

## Insert Failure Processing in Siebel Handheld

When the server executes an insert transaction and the insert fails, there are two ways the insert failure can be handled:

- A record is logged that indicates the insert failed, and synchronization continues. This is the default insert behavior. The Conflict Administration screen can be used to recover the data.
- The insert failure is logged, including details of the failure, and synchronization is interrupted. This is the FailOnError behavior. FailOnError behavior guarantees that, should an insert fail, data loss does not occur since synchronization is stopped until the circumstances causing the failure are resolved.

**NOTE:** If FailOnError processing takes place, synchronization is interrupted. The synchronization process continues to fail until the problem is resolved. End users must contact their system administrators to recover from the failure. The recovery effort may involve modifying transactions queued for processing, modifying data on the server, or reentering transactions through the Siebel Handheld application.

### Handling Insert Failures

You can enable Extended Pick processing globally or at the business component level when configuring the Siebel Handheld application. The following setting applies globally throughout the application. When FailOnError is specified, every failed insert interrupts synchronization.

*DefaultHandheldInsertMode.*

You can specify the value for this setting through the Settings view in the Administration-Mobile screen.

Table 31 shows the settings for this parameter.

Table 31. Insert Failure Processing Parameter Setting

Parameter	Mode Value	Description
DefaultHandheldInsertMode	NoFail	Insert failures are logged and synchronization continues. This is the default behavior.
	FailOnError	Insert failures are logged and synchronization terminates. The system administrator must intercede to recover from this failure.

Optionally, you can enable Extended Pick processing at the business component level.

`HandheldInsertFailMode=Mode`

The user property is defined on specific business components. The setting in the business component takes precedence over the setting defined in the Settings view. Table 32 shows the syntax for setting the Insert Fail Mode on a business component and the parameter values. These settings are made in Siebel Tools.

Table 32. Business Component User Property Parameter

Business Component User Property	Parameter	Value	Description
HandheldInsertFailMode	<i>Mode</i>	NoFail	Insert failures are logged and synchronization continues. This is the default behavior.
		FailOnError	Insert failures are logged and synchronization terminates. The system administrator must intercede to recover from this failure.

Table 33 shows the combined effect of the setting in the Settings view and the setting on a business component.

- The business component setting always takes precedence over the settings defined in the Administration-Mobile > Settings view.
- If there is no setting on a particular business component, the Applications Settings value applies.
- If there is no setting in either the Settings view or on the business component, the default behavior is the same as NoFail. Insert failures are logged and synchronization continues.

In [Table 33](#), read down the Tools Configuration column and across to the application settings value to see the combined result. For example, a NoFail BC setting combined with a FailOnError application setting results in the combined effect NoFail.

Table 33. Combined Effect of Insert Failure Settings

Tools Configuration (User Property) HandheldInsertFailMode=	Application Settings Value DefaultHandheldInsertMode=		
	NoFail	FailOnError	Omitted
NoFail	NoFail	NoFail	NoFail
FailOnError	FailOnError	FailOnError	FailOnError
No Setting on Business Component	NoFail	FailOnError	NoFail

## Recovering Error Data in Siebel Handheld

Selected synchronization and conflict errors are captured to the database, and can be accessed through the Conflict Administration screens. This mechanism is always enabled. For more information on recovering error data, see [“Obtaining Error Details from Siebel Handheld Synchronization Sessions” on page 73](#).

# 8

## Installing the Handheld Application

This chapter includes the following topics:

- [“Preparing to Upgrade from a Previous Siebel Handheld Release” on page 119](#)
- [“Installing the Siebel Handheld Application” on page 119](#)
- [“Reinstalling the Siebel Handheld Application” on page 122](#)
- [“Uninstalling the Siebel Handheld Application” on page 122](#)

### Preparing to Upgrade from a Previous Siebel Handheld Release

The Siebel Handheld application cannot be upgraded directly on the device. To upgrade your existing application and to migrate your data and settings to Siebel 7.8 use the following process:

- Back up the handheld device by synchronizing to your database. See, [“Synchronizing Data on the Siebel Handheld Device” on page 133](#).
- Uninstall your Siebel Handheld application. See, [“Uninstalling the Siebel Handheld Application” on page 122](#).
- Then install the new version of your Siebel Handheld application. See [“Installing the Siebel Handheld Application” on page 119](#).

### Installing the Siebel Handheld Application

There are two ways to install software onto any Windows-powered handheld device. The first is to create a partnership between a desktop or laptop PC and the handheld device using Microsoft ActiveSync. The second is to install the application from type of external media.

**NOTE:** It is important to remember that end users must synchronize their handheld devices to download the application configuration and populate the database before they can use the application. Therefore, an administrator may install the application for an end user, but the synchronization must occur using the end user’s name and password.

### Installing Handheld for Companion Sync Users

The following procedure lists the Handheld installation steps for Companion Sync users:

### **To install the Siebel Handheld application using Companion Sync**

- 1 Using Microsoft ActiveSync, establish a partnership between the handheld device and the PC.
- 2 On the PC network or DVD-ROM, locate the folder where the Siebel Handheld Application folder is installed, then double-click setup.exe.

The installation process begins.

- 3 From the Choose Setup Language window, choose the language you want to use for the installation and click OK.
- 4 At the Synchronization Options screen, choose the Companion Sync option and then click Next.  
The next screen displays and asks, "Would you like to deploy a CAB file to enable rapid installation for additional devices?"

**NOTE:** If you want to create a stand-alone installer, choose Yes, and then click Next.

- 5 To install the application on the device, click Next.
- 6 Select the desired language of the Siebel Handheld Application, and click Next.  
A window appears showing the setup status, followed by several DOS windows.
- 7 The Add/Remove Programs dialog appears. This is followed by the Installing Applications dialog that asks if you want to install in the default directory. Click Yes to install the Siebel Handheld application on the handheld device.

**NOTE:** The default directory in the Applications dialog is the directory specified by the system administrator in a setup file. So that the application works correctly, the Siebel Installer installs the application in the default directory. Therefore, even if you specify a different location for the application, the application is installed in the default location.

During the installation, the Installing Applications dialog box displays a progress bar. It may take several minutes to install on the handheld device. When the application has been downloaded to the handheld device, the Application Downloading Complete dialog box displays on the PC.

- 8 Click OK.

A window appears informing you that setup has finished installing the Siebel Handheld application on your computer.

- 9 Click Finish.

After installing the Siebel Handheld application and Siebel Handheld Sync, you must perform an initial synchronization before the application can be used. Refer to ["Synchronizing Data on the Siebel Handheld Device" on page 133](#) for the procedure for synchronizing your data.

See [Chapter 5, "Data Filtering,"](#) for more information on using Direct Server Sync and setting filters.



## Installing Handheld for Direct Server Sync Users

Most DSS users do not have access to a PC for creating a partnership with their handheld device. In this case, the administrator has to create a temporary partnership with each user's device and install the application. Siebel Handheld applications can be installed in DSS mode using the Siebel Installer as described in this section.

### *To install the Siebel Handheld application using DSS*

- 1 Using Microsoft ActiveSync, establish a partnership between the handheld device and the PC.
- 2 On the PC network or DVD-ROM, locate the folder where the Siebel Handheld Application folder is installed, then double-click setup.exe.

The installation process begins.

- 3 From the Choose Setup Language window, choose the language you want to use for the installation and click OK.
- 4 At the Synchronization Options screen, choose the Direct Server Sync option and then click Next.

The next screen displays and asks, "Would you like to deploy a CAB file to enable rapid installation for additional devices?"

**NOTE:** If you want to create a stand-alone installer, choose Yes, and then click Next.

- 5 To install the application on the device, click Next.
- 6 Select the desired language of the Siebel Handheld Application, and click Next.

A window appears showing the setup status, followed by several DOS windows.

- 7 The Add/Remove Programs dialog appears. This is followed by the Installing Applications dialog that asks if you want to install in the default directory. Click Yes to install the Siebel Handheld application on the handheld device.

**NOTE:** The default directory in the Applications dialog is the directory specified by the system administrator in a setup file. So that the application works correctly, the Siebel Installer installs the application in the default directory. Therefore, even if you specify a different location for the application, the application is installed in the default location.

The Siebel Handheld installation automatically installs SSCE Service Pack 1 and overwrites existing files on your system. A message may appear asking if you want to replace existing files. Respond by tapping "Yes to All."

During the installation, the Installing Applications dialog box displays a progress bar. It may take several minutes to install on the handheld device. When the application has been downloaded to the handheld device, the Application Downloading Complete dialog box displays on the PC.

- 8 Click OK.

A window appears informing you that setup has finished installing the Siebel Handheld application on your computer.

- 9 Click Finish.

After installing the Siebel Handheld application and Siebel Handheld Sync, you must perform an initial synchronization before the application can be used. Refer to [“Synchronizing Data on the Siebel Handheld Device” on page 133](#) for the procedure for synchronizing your data.

See [Chapter 5, “Data Filtering,”](#) for more information on using Direct Server Sync and setting filters.

## Reinstalling the Siebel Handheld Application

Follow the steps below to reinstall your Siebel Handheld application.

### *To reinstall the Siebel Handheld application*

- 1 Before you reinstall the current application, you must first uninstall the current application on your device. See [“Uninstalling the Siebel Handheld Application” on page 122](#) for more information.
- 2 Once you have uninstalled the application, you may then reinstall the application or install the newer version. See [“Installing the Siebel Handheld Application” on page 119](#), and follow the instructions for installing the Siebel Handheld application.
- 3 Synchronize your Siebel Handheld application. See [“Synchronizing Data on the Siebel Handheld Device” on page 133](#) and follow the instructions for synchronizing your data.

**NOTE:** If you are using Companion Sync to synchronize your data, synchronize the Siebel Handheld database with the Siebel Remote database.

## Uninstalling the Siebel Handheld Application

Uninstalling the application deletes the database files as well as the application files.

**CAUTION:** Before you uninstall your application, you must synchronize your database to save any changes to your data since the last synchronization. If you do not synchronize before uninstalling, these changes will be lost. See [“Synchronizing Data on the Siebel Handheld Device” on page 133](#) and follow the instructions for synchronizing your data.

### *To uninstall the Siebel Handheld application*

- 1 Select Start > Settings.
- 2 Select the System tab and tap Remove Programs.
- 3 From Remove Programs, select the Siebel Handheld application and tap Remove.

**NOTE:** A dialog box appears saying that a file cannot be deleted. This occurs because a file may still reside in memory. Ignore this message and tap OK to delete all application and database files. No additional steps are required to remove the application and database files.

# 9

## Working with Siebel Handheld Applications

This chapter includes the following topics:

- "Components of the Siebel Handheld Interface" on page 123
- "Navigating the Siebel Handheld Interface" on page 126
- "Navigating a List of Records in the Siebel Handheld Application" on page 127
- "Entering Data with the Siebel Handheld Application" on page 128
- "Finding and Querying Data in the Siebel Handheld Application" on page 128
- "Printing with the Siebel Handheld Application" on page 130
- "Exporting Data with the Siebel Handheld Application" on page 130
- "Setting User Preferences in the Siebel Handheld Application" on page 131
- "Backing Up and Restoring Data with the Siebel Handheld Client" on page 131
- "Synchronizing Data on the Siebel Handheld Device" on page 133
- "Synchronization Troubleshooting with the Siebel Handheld Client" on page 136
- "Improving Siebel Handheld Application Performance" on page 137

### Components of the Siebel Handheld Interface

The components of the handheld interface include the Screens menu, Show drop-down list, application-level menu, Queries drop-down list, toolbar, and status bar.

Figure 3 shows the components of the Siebel Handheld application.

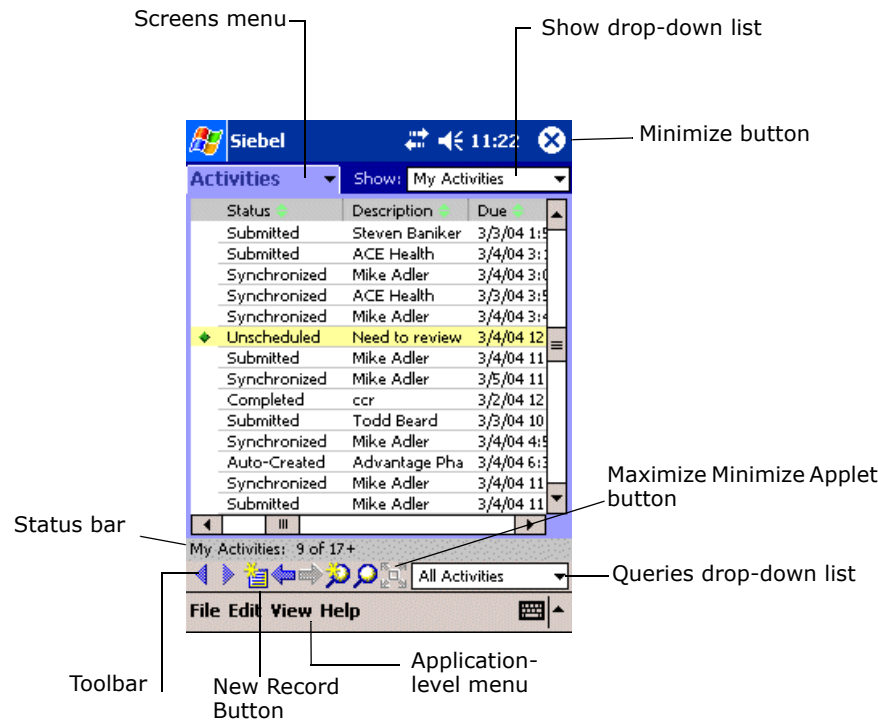


Figure 3. Siebel Handheld Screen Components

## Screens Menu

The screens menu is the first level of navigation in the Siebel Handheld application. When you launch the Siebel Handheld application for the first time, this tab is labeled Screens unless you have configured a start up view to appear. When you tap the screens menu, a drop-down list of all available screens appears. Tap the desired screen in the list to navigate to it.

For information about configuring a start up view, see ["Setting User Preferences in the Siebel Handheld Application"](#) on page 131.

## Show Drop-Down List

The Show drop-down list is the second level of navigation in the Siebel Handheld application. This is where you choose views for the selected screen.

## Application-Level Menu

The application-level menu consists of the File, Edit, View, and Help menus. Tap a menu to select a menu option. The options that are available in each menu vary depending on the task you are performing.

## Queries Drop-Down List

Up to two predefined queries, or business object filters are displayed in the Queries drop-down list. The list displays the query chosen when you synchronized (or the default filter if you did not change the Set Filters selection) and the All Records query, if it is defined. For more information, see [Chapter 5, "Data Filtering."](#)

## Siebel Toolbar

The Siebel toolbar has buttons for frequently used functionality like record navigation and querying. You can configure your toolbar and specify which buttons are displayed. See ["Configuring User Interface Elements in Siebel Handheld" on page 25.](#)

- Tap the New Record button to add a new record to the active list or form.
- Tap the Back button to navigate to the previous view.
- Tap the Forward button to navigate to the view you were in before you selected the Back button.
- Tap the Record Navigation buttons to move through records in a form or a list.
- Tap the New Query button to begin a new query in a form or a list.
- Tap the Execute Query button to run the query you just created.
- Tap the Maximize Minimize Applet button to expand the active applet so that it is the only applet displayed and takes up the entire screen display. This allows you to see more columns or more rows of data at one time. Tap again and the screen displays two applets.

## Customizing the Toolbar

You can customize which buttons appear on your toolbar by selecting View > Customize Toolbar from the application menu.

To add and remove buttons from the toolbar, drag and drop the desired buttons between the Choose Toolbar Buttons dialog box and the toolbar.

## Minimize Button

The Minimize button appears in the upper-right corner of your window. When you tap the Minimize button, the application minimizes, but does not close. To reopen the minimized application, from the Start menu, tap the Siebel Handheld icon. To close (exit) the application, choose File > Exit.

Do not confuse the Minimize button that appears in the upper right corner with the Maximize Minimize Applet button that appears on the Toolbar.

## Status Bar

The status bar appears at the bottom of the application window. It provides information about the current view.

# Navigating the Siebel Handheld Interface

Navigating the Siebel Handheld application is achieved through the screens menu, the Show drop-down list, drilling down, drilling across, toolbar buttons, and toggling.

## Screens Menu

The screens menu provides the first level of navigation. Here you select the screen you want to work in. For more information about the screens menu, see ["Components of the Siebel Handheld Interface" on page 123](#).

## Show Drop-Down List

The Show drop-down list is the second level of navigation. After you have selected a screen from the screens menu, select a view from the Show drop-down list. Views in the Show drop-down list are specific to each screen.

## Toggling Between Applets

A maximum of two applets can be displayed at one time in a Siebel Handheld application. In situations where there are more than two applets configured and a Toggle button has been configured, you may tap the Toggle button on the applet. Or you may select View > Toggle from the menu to toggle between applets.

## Expandable Fields

Due to the limited screen size on the handheld, it is not always easy to view the data in a field without scrolling or resizing the field width. Therefore, some fields that could contain large amounts of text are expandable—that is, the data can be viewed in a text box. An ellipsis (...) appears in the field to indicate that the field is expandable. When you tap the ellipsis, a text box opens showing the data in that field. When you step off the field, the text box closes.

In form applets, an ellipsis is always visible in those fields that are expandable. However, in list applets, due to space constraints, the ellipsis is not always visible in expandable fields. When you tap on an expandable field in a list applet, the ellipsis appears. Once the ellipsis appears, you tap the ellipsis to open the text box.

## URLs in Applet Fields

Tapping on a field that contains a URL value launches the URL in PocketIE.

## Navigating a List of Records in the Siebel Handheld Application

Within the view you select from the Show drop-down list, you can view detailed information on a record. When records are displayed in a list, you can drill down or drill across the record to get additional details.

Drilling down occurs when you tap a hyperlink in a record and are taken to another view within the current screen. For example, if you are in the Accounts screen, and tap the Account Name hyperlink, you navigate to the details for that account. You do not leave the Accounts screen; you just move deeper into it.

**NOTE:** Hyperlinks are indicated by blue underlined text as long as they are set up this way in User Preferences. For more information see ["Setting User Preferences in the Siebel Handheld Application" on page 131.](#)

Drilling across a record occurs when you tap a hyperlink in a record and are taken to another view in a different screen. For example, tapping a hyperlink in the Accounts column of a contact record in the Contacts screen takes you to the record for that account in the Accounts screen.

Dynamic drilldown occurs when you tap a hyperlink in a record and are taken to another screen or just another view. Where you navigate to depends on the content in the drilldown field.

### History Arrows




To navigate back to views you have recently displayed, tap the Back button. After you have used the Back button, you can use the Forward button to navigate back to your original screen and view.

**NOTE:** The History arrows only allow you to navigate between views. These arrows do not allow you to recover data that may have been entered or deleted in another view.

### Record Navigation Buttons

Use the Record Navigation buttons to move back and forth through a set of records. The navigation buttons are described in [Table 34.](#)

Table 34. Record Navigation Buttons

Button	Description
	Navigates back to the previous record in the list or form.
	Navigates forward to the next record in the list or form.
	Navigates back a view based on the navigation history. You can define which views are part of the history. If a view is set to not be recorded as part of the history, the back button won't go back to that view.

## Entering Data with the Siebel Handheld Application

There are several different methods for entering data in the Siebel Handheld application. Tap the up arrow next to the Input Panel button to select a method. See the user guide for your device for information on using the different input methods.

### Working with Columns in the Handheld Client

Data is displayed in lists and forms in your Siebel Handheld application. You can organize and work within it in a number of ways to better suit your needs.

There are several ways in which to organize columns in a list. You can:

- Sort data by up to three columns
- Resize columns
- Change the order in which the columns appear
- Show and hide columns
- Lock columns for horizontal scrolling

You can sort records in a list by tapping in the column header of the column in which you want to sort the records. If the green column sort indicator points up, the column is sorted in ascending order. If it points down, the column is sorted in descending order.

If you need to sort by more than one column, you can open the Sort Order dialog box to sort up to three columns at one time. Open the Sort Order dialog box by choosing from the application-level menu.

Resize columns by tapping and dragging the divider between the column headings until the column is the desired size.

You can change the order of columns using the Columns Displayed dialog box. Open the Columns Displayed dialog box by choosing

Show and hide columns using the Columns Displayed dialog box. In the Available columns list, select the items you want to show and tap the arrow to move the selected items to the Selected columns list. To hide columns, select the items and tap the arrow to move the selected items to the Available columns list.

Lock or unlock columns by tapping and holding the column header.

## Finding and Querying Data in the Siebel Handheld Application

You can search for data using the Find or Query functionality in your Siebel Handheld application.



## About Find in Handheld

Use Find to do a simple search for a record. You can access Find by choosing Edit > Find View > Find from the application-level menu. This launches the Find dialog box, in which you can enter your search criteria. The asterisk wildcard function (\*) can be used in the search criteria. Figure 4 shows an example of the Find dialog window with the following fields: Look In, Last Name, Type, Last Call Date, Primary Specialty, and Rep Specialty.

**NOTE:** There may be a slight variation in your version of Siebel software, and the Find dialog box may not look exactly as shown here.

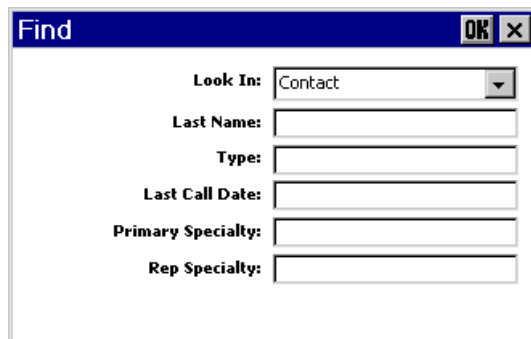


Figure 4. Find Dialog Box

## About Queries in Handheld

Use Query to locate a number of records containing a specific set of criteria. There are a number of ways in which to perform query tasks in your Siebel Handheld application.

### Creating a Query

To begin a query, you can choose from the application-level menu, or you can tap the New Query button on the toolbar. Both provide you with a blank form or list where you can enter your query criteria, depending on where you are in the application when you invoke the command. The asterisk wild card function (\*) can be used in the search criteria.

### Executing a Query

After you have created the query, you can execute it by choosing from the application-level menu or by tapping the Execute Query button in the toolbar.

### Refining a Query

You can refine your current query by choosing from the application-level menu.

## Printing with the Siebel Handheld Application

You may print from any view in the Siebel Handheld application that has been configured to support printing. When you print from the handheld, a document that has been configured for the view is printed. You can print directly to a printer, or, if you are not connected to a printer at the time, you can queue your print jobs and wait until you have access to a printer to print your documents.

**NOTE:** When you print from a view, you are not necessarily printing what is visible on the screen at the time. Every field on the screen may not be relevant for the document. The document may contain only a portion of what is in the view, and it may also contain data that is not viewable at the time. A separate applet, which often cannot be viewed in the user interface, is configured specifically for printing.

The print templates used to generate the printed are installed during the time of setup.

For a list of supported printers, see *System Requirements and Supported Platforms* on Siebel SupportWeb.

Print from the Siebel Handheld application by choosing File > Print. If you are connected to a printer, the print job runs. If you are not connected to a printer, the print job is sent to a print queue. View the print queue by choosing File > Print Queue.

## Exporting Data with the Siebel Handheld Application

You may export data from any view in your application in HTML format or as tab delimited text and save it to a file. This file can be viewed in applications such as Microsoft Pocket Word, Microsoft Pocket Excel, and Internet Explorer.

To export data, select File > Export to open the Export dialog box.

In the Export dialog box, you may specify the following:

- **Format.** Specify either HTML or Tab delimited text file.
- **Export.** Select Only active applet to export only the data in the active applet. Select All applets in view to export the data in all visible applets.
- **Output file name.** By default, the file is saved in the temp directory with the filename "output." You may tap Browse to specify a different location or filename.
- **Paste Output to Clipboard.** Select the checkbox to save the data to the clipboard.

- **Open file.** Select the checkbox to automatically open the file. When you tap OK in the Export dialog box, the data is exported to the specified file, and the file is automatically opened.

**NOTE:** You must specify a valid output format for the application. See [Table 35](#) for the correct formats to specify for the supported applications.

Table 35. Export Data Options

To export data to	Do the following
Microsoft Word	Set Format to "Tab delimited text file."
Microsoft Excel	Select the "And paste output to clipboard" check box. The Output format may be set either to HTML or "Tab delimited text file." Paste the data from the clipboard into an Excel spreadsheet.
Microsoft Internet Explorer	Set Format to HTML.

## Setting User Preferences in the Siebel Handheld Application

You can customize aspects of your Siebel Handheld application from the User Preferences dialog box. Access the User Preferences dialog box by choosing from the application-level menu.

In the User Preferences dialog box you can:

- Set a default startup screen.
- Set number of maximum history threads to be saved.
- Set the maximum percentage of the display area that the parent applet can take up.
- Change font size.
- Customize list spacing, column width settings, and grid lines.
- Customize your calendar's default view, start time, time slot interval, and default appointment duration.

## Backing Up and Restoring Data with the Siebel Handheld Client

It is recommended that you back up your data to an external device—for example, a CompactFlash card or a Secure ID card. If the handheld device is damaged, the backup may not be retrievable. If you store your backups in RAM, depending on the size of your application and data extract, you may decrease the amount of memory available for the application, and your application performance may suffer.

## Automatic Backup After Synchronization

The automatic backup feature must be enabled in the application by your System Administrator. If the backup feature is enabled, a backup is automatically created at the end of every synchronization. This way, you have an up-to-date snapshot of the database.

**CAUTION:** You must never synchronize your data to the handheld device and then restore the database using an older copy of the database. If you do, the next time you synchronize, the application tries to rewrite changed transactions. This can cause data integrity problems. Therefore, when the database backup feature is enabled, a database backup occurs automatically at the end of each synchronization.

Keep in mind that enabling automatic backup makes the overall time to synchronize somewhat longer. The size of the database and the speed of the CompactFlash card also affect the time it takes to complete synchronization.

For more information, see ["Enabling Handheld User Database Backup" on page 105](#).

## Backing Up Data

The following procedure describes how to back up the database on the handheld device.

### *To back up the database*

- 1 From the application-level menu, choose File > Backup.

**NOTE:** If the Backup menu item is disabled, contact your system administrator to have backup enabled in your application.

A dialog box appears, telling you that backing up the data will restart the application and prompts you to confirm that you want to continue.

- 2 Tap Yes to start the backup.

A status dialog box appears indicating that the backup is in progress and may take a few minutes. The Handheld configuration files and data is copied to the backup location specified in the setup.ini file. Typically, the backup location is a CF or SD card.

A dialog box appears telling you whether the backup succeeded and asks if you want to return to the application.

- 3 Tap Yes to return to the application.

**NOTE:** If the backup fails, consult your system administrator.

## Restoring Data from a Backup

In order to restore the application to its previous state, the user should contact the system administrator. Any work performed on the handheld device since the last backup will be lost.

### **To restore the database**

- 1** Remove the external flash card from the damaged device and place it in a new handheld device where the application has been installed.
- 2** Navigate to the \Program Files\Siebel Handheld folder.
- 3** Start the restore by tapping the BackupUtility file twice.  
A dialog box appears, asking you to confirm that you want to restore the device from a previous backup.
- 4** Tap Yes.  
A status dialog box appears, indicating that the restore is in progress. The backup utility restores the files to the state when the backup was performed. A dialog box appears telling you if the restore was successful. If successful, it asks you to confirm that you want to restart the Siebel Handheld application.
- 5** Tap Yes to start using the application.

## **Synchronizing Data on the Siebel Handheld Device**

You must synchronize the data on your handheld device:

- After you install or upgrade the Siebel Handheld application.
- Before uninstalling the Siebel Handheld application.
- On a regular basis to keep your data synchronized with Siebel Server and Siebel Mobile Web Client.

The sections that follow describe how to synchronize using Companion Sync (CS), Direct Server Sync (DSS) and Direct Server Sync via Proxy (DSSvP), and provide some troubleshooting tips.

## **Using Siebel Handheld Synchronization with the Handheld Client**

Siebel Handheld Synchronization differs depending on whether users synchronize through Companion Sync or Direct Server Sync. The following topics show you how to launch and use Handheld Synchronization for each method.

**NOTE:** A given user can only synchronize using one method. For example, it is not possible to install a Siebel Handheld application that a particular user will synchronize both to the Siebel Mobile Web client database through Companion Sync and also to the Siebel Server database directly through Direct Server Sync.

## Using Companion Synchronization with the Handheld Client

If you are using Companion Sync, you must follow a three-step process to synchronize handheld, remote, and server databases. Immediately before and after every Siebel Remote sync, you must perform a Companion Sync. This process can be time consuming for the end user and difficult for the administrator to enforce.

Integrated Sync eliminates the need for you to initiate three separate sync sessions for each Siebel Remote sync.

Before using Integrated Sync, you must specify or add the parameter RemoteCfgName in the [pda] section of medicalce.cfg for the CFG file that will be used to invoke Siebel Remote Sync. For example, RemoteCfgName=emedical.cfg. If you do not specify this parameter it will default to siebel.cfg. This parameter is used by Siebel Handheld Sync to invoke Siebel Remote. It applies only when synchronizing using the Integrated Sync option.

Integrated Sync automatically initiates each of the following synchronization steps:

- 1** Handheld Upload and Processing - Handheld transactions are uploaded to the companion PC and processed.
- 2** Siebel Remote Synchronization - The Siebel Mobile Client is synchronized with the Siebel server. Transactions on the mobile client database are uploaded to the Siebel server, and changes to the Siebel server are downloaded to the mobile client database.

**CAUTION:** If there is a handheld patch staged on the server, synchronization terminates and the patch is installed. After the patch installation is completed, you are prompted to synchronize again (using either Integrated Sync or Companion Sync) to complete the data extraction and download (that is, move to Step 3). It is critical that you synchronize a second time after the patch installation is completed. If you fail to do so, you will not be able to start the Siebel Handheld application.

- 3** Handheld Data Extract and Download - Data is extracted from the mobile client database to the handheld device database.

You may use Companion Sync to synchronize your handheld with Siebel Mobile Client as many times as you wish between Integrated Sync sessions. However, it is recommended that you conduct Integrated Sync sessions frequently so that the Siebel Remote synchronization process does not take long periods of time to complete and update conflicts are minimized.

### **To perform Companion Sync from the PC**

- 1** From the companion PC, establish a Microsoft ActiveSync connection to the handheld device.
- 2** From the companion PC, choose Start > Programs > Siebel Handheld Sync.

The Siebel Handheld Sync dialog box appears.

- a** Enter your name and password.

- b** Select the Perform Remote Sync check box to perform an Integrated Sync.

If you want to do Companion Sync only, then unselect the Perform Remote Sync check box.

Selected Bypass Set Filters skips the step of selecting the filters and immediately starts the synchronization process. If you select Bypass Set Filters, then the filters that you selected the last time you synchronized are used. If this is the first time you are synchronize, then the default filters are used.

- 3** Tap Start.

**NOTE:** Tap Default Filters to restore the filter selection to the default setting.

- 4** Tap OK and tap Start to begin synchronization.

- a** The Siebel Handheld Sync dialog box appears. If "Perform Remote Sync" was selected, this is followed by the Siebel Remote dialog box. When synchronization has successfully completed, the Finished dialog box appears.

- b** If a handheld patch needs to be installed, the synchronization process is interrupted and the patch is installed. After the patch is installed, you must restart Siebel Handheld Sync to complete the data extract process. If you fail to do so, you cannot start your application.

- c** The Finished dialog box appears indicated that the synchronization has successfully completed.

- 5** Tap OK to exit Siebel Handheld Sync.

**NOTE:** If synchronization errors occur, an error dialog box appears.

Companion Sync can also be performed in the method described for Direct Server Sync via Proxy in ["Using Direct Server Synchronization with the Handheld Client" on page 135](#).

### ***To perform Companion Sync from the handheld device***

- 1** From the application-level menu, choose File->Synchronization.

- 2** In the Sync window select the "Enable Remote Sync" checkbox. It is disabled by default.

For information on changing the parameter value for EnableRemote in the setup.ini file, see ["Siebel Handheld setup.ini Parameters" on page 103](#).

- 3** See the steps for synchronizing using DSSvP in the procedure ["To synchronize with the Siebel application server" on page 136](#).

## **Using Direct Server Synchronization with the Handheld Client**

There are two methods for synchronizing between the handheld device and the Siebel application server:

- Direct Server Sync (DSS) provides synchronization between the Siebel Handheld application and the Siebel application server.

- Direct Server Sync via Proxy (DSSvP) provides synchronization between the Siebel Handheld application and the Siebel application server, using the desktop or companion PC to provide the network connection between the handheld device and the server.

### **To synchronize with the Siebel application server**

- 1** If you are synchronizing using DSS, create a direct network connection through a modem or a direct LAN connection.  
  
If you are synchronizing using DSSvP, establish an ActiveSync connection between the handheld device and the PC.
- 2** From the application tap File > Synchronize.  
  
The Siebel Handheld Sync dialog box appears.
- 3** Enter your user name and password.
- 4** Tap Start.  
  
The Siebel Handheld Sync dialog box appears.
- 5** Tap OK to exit Siebel Handheld Sync, and the application will launch automatically.  
  
**NOTE:** If synchronization errors occur, an error dialog box appears.

## **Synchronization Troubleshooting with the Siebel Handheld Client**

This section lists potential error messages that are associated with synchronization. In addition, this section helps to understand transaction errors.

### **General Synchronization Errors**

There are a number of different errors that can occur when synchronization does not complete successfully, for example:

- Faulty wire connection
- Server crash
- Insufficient memory
- Login error

When these errors occur, the user should exit Siebel Handheld Sync and launch the application again.

**NOTE:** When you restart Siebel Handheld Sync, you may see an error message that says that another instance of syncmanager.exe is running. You are asked whether you want to terminate the first instance or not, and you should choose Yes.



## Transaction Conflicts

Transaction conflicts are minimized when customers adhere to the standard configuration practices outlined in this document. However, even when proper configuration practices are followed, conflicts can occur for a variety of reasons. For example, if a field value is updated on both the handheld client and the server between synchronization events, a transaction update conflict occurs. In this instance, the user is presented with an error dialog after synchronization has completed.

A transaction consists of one or more smaller transactions called mini-transactions. For example, if you update several fields in a record, the update to the record counts as a single transaction, and each update to a field is a mini-transaction. Individual fields are skipped when update conflicts occur. Changes to any field that has been updated on the server since the last sync (perhaps by another Handheld user) are discarded (but logged and returned as errors to the user). All non-conflicting fields normally are updated. Except for field-level conflicts, which are skipped when they occur, a transaction is applied in its entirety, and at this point will either succeed or fail in its entirety.

# Improving Siebel Handheld Application Performance

If you find that the performance of the Siebel Handheld application is very slow or begins to degrade, the following can help to improve the application performance:

- Verify that you are using a Siebel supported device for your application. See *System Requirements and Supported Platforms* on Siebel SupportWeb.
- When you run the Siebel Handheld application, it is recommended that you do not run any other applications. By doing so, you maximize the amount of memory that is available to run the application.
- Increase the amount of memory that is allocated for running applications.
- Installing the binaries to a CompactFlash card. For more information, see ["Setting Up Siebel Handheld Application Installation on a CompactFlash Card" on page 107](#).

### **To increase application memory**

- 1 From the Start menu, select Settings.
- 2 Select the System tab and tap Memory.
- 3 Move the slider bar so that more memory is allocated to Program Memory, then tap OK.



# 10 Using Siebel Medical Handheld

This chapter includes the following topics:

- "About Using Siebel Medical Handheld" on page 139
- "Managing Accounts in Siebel Medical Handheld" on page 140
- "Working with Contacts in Siebel Medical Handheld" on page 147
- "Working with Sales Methods in Siebel Medical Handheld" on page 151
- "Developing Opportunities in Siebel Medical Handheld" on page 151
- "Managing Activities in Medical Handheld" on page 155
- "Developing Quotes in Medical Handheld" on page 159
- "Managing Orders in Medical Handheld" on page 163
- "Tracking Expenses in Medical Handheld" on page 165
- "Creating General Activities in Siebel Medical Handheld" on page 167
- "Managing MedEd Events in Medical Handheld" on page 169
- "Managing Consigned Inventory with Siebel Medical Handheld" on page 171
- "Managing and Performing Cycle Counts with Medical Handheld" on page 173
- "Moving Inventory with Medical Handheld" on page 179
- "Analyzing Inventory with Medical Handheld" on page 184

## About Using Siebel Medical Handheld

Siebel Medical Handheld provides medical field representatives with tools and information to effectively execute sales related tasks at point of contact. Given the fragmented and highly diversified nature of the medical device industry, the main point of contact for an account can be either a sales representative or service representative. Siebel Medical Handheld is designed to allow sales and service professionals to have one view of the customer enabling key tasks such as managing information on contacts and accounts, tracking opportunities, performing cycle counts, and tracking consigned inventory.

This chapter is designed to show you how to use Siebel Medical Handheld. Business scenarios accompany each major topic and illustrate key tasks you can perform using Medical Handheld. Your company might follow a different sequence according to its business requirements.

Using Siebel Medical Handheld, field sales representatives and field service engineers can manage accounts and contacts, manage activities associated with these accounts and contacts, view medical education events and invite contacts to these events, track opportunities, generate orders and quotes, view products, and manage consignment inventory.

# Managing Accounts in Siebel Medical Handheld

An account is any healthcare business that generates sales for your company or potentially could generate business. Typical examples of accounts include hospitals, clinics, HMOs, wholesalers, group purchasing organizations (GPOs), and pharmacies. An account can also be any organization with which multiple contacts are associated, such as a group practice or an assisted-living facility.

Siebel Medical Handheld allows you to manage and track information on accounts.

The following topics related to accounts and account management are included in this section:

- [“Creating Accounts in Medical Handheld” on page 140](#)
- [“Affiliating Contacts with Accounts in Medical Handheld” on page 143](#)
- [“Specifying the Best Time to Call on an Account in Medical Handheld” on page 143](#)
- [“Viewing Sales Data in Medical Handheld” on page 144](#)
- [“Logging and Tracking Service Requests in Medical Handheld” on page 144](#)
- [“Entering Private Notes for Accounts in Medical Handheld” on page 145](#)
- [“Entering Shared Notes for Accounts in Medical Handheld” on page 146](#)
- [“Associating Activities with Accounts in Medical Handheld” on page 146](#)
- [“Tracking Opportunities with Accounts in Medical Handheld” on page 147](#)

## Scenario for Managing Accounts in Medical Handheld

This scenario gives one example of how you can use Siebel Medical Handheld to manage accounts. You might use Siebel Medical Handheld differently, depending on your business model.

A radiologist in a hospital is interested in a company’s new MRI machine. The sales representative sets up a time for a sales call later in the week.

During the sales call, the sales representative asks a number of questions to determine the account structure of the radiologist’s business to help the representative determine how to best fill her needs. The sales representative learns that the prospect’s business has a total of four locations, and that sales and service are billed through the main office, although each location receives a billing statement.

After the sales representative meets with the radiologist, she uses Siebel Medical Handheld to edit information on the account.

## Creating Accounts in Medical Handheld

When you identify a possible lead, the lead can be added as an account. You can then begin to add and track information about the account.

Multiple employees can be assigned, as a team, to an account. Any employee assigned to the team can update the account's information. A user who adds an account is automatically designated as the primary account team member. However, he or she can also be added to an account team created by another user, such as a manager.

**To create an account**

- 1 Navigate to the Accounts screen.  
The My Accounts list appears.
- 2 Tap the New Record button.
- 3 In the Name field tap the ellipsis (...), then enter a name for the account, then select More Info.
- 4 In the More Info view, complete the necessary fields.

Some fields are explained in the following table:

Field	Comments
Name	Required. Name of the account.
Account Type	Required. Name of the account. For example, Hospital, Pharmacy, Practice, Clinic, and so on).
Site	Physical location of the account.
Status	Customer designated status of the account. (For example, active, suspended, inactive, new and so on).
Main Phone #	Phone number for the account.

**To add account addresses**

- 1 Navigate to the Accounts screen.
- 2 In the My Accounts list, select the account record.
- 3 From the Show drop-down list, choose Addresses.
- 4 In the Account Addresses view, tap to select the Addresses list, and then tap the New Record button.

- 5 Complete the fields for the address, and tap the Primary field to display a check mark if this is the primary address for the account.

Some fields are explained in the following table:

Field	Comments
Primary	Check flag defining whether address is the primary address for the account.
Address Line 1	Required. Typically, street address, floor or suite.
City	A required field.
State	Required. In two letter format. For example, CA, NY, and so on.

**To add additional account information**

- 1 Navigate to the Accounts screen.
- 2 In the My Accounts list, select the desired account.
- 3 From the Show drop-down list, select More Info.
- 4 Complete the fields to add additional information.

Some fields in the More Info form are described in the following table:

Field	Comments
Site	Physical location of the account.
Route	The route number as decided by your company. This is a predefined list of values, set up by your administrator. Values appear as a drop-down list.
Account Type	A predefined list of values. For example, Planning Group.
Mkt Potential	You may designate this field to indicate its potential for sales. A predefined list of values includes High, Medium, and Low.
Account Team	Displays the primary sales representative for the sales team assigned to the account.
Status	You designate the current status of an account with this field. For example, Suspended, Qualified, or Active.

## Affiliating Contacts with Accounts in Medical Handheld

A contact is a doctor, surgeon, hospital administrator, nurse, or someone else associated with a hospital, clinic, and so on. Accounts can be, for instance, hospitals, pharmacies, HMOs, clinics, or group practices. As you continue to work closely with a prospective account, professional contacts associated with the account become important. Contacts can belong to multiple accounts, but only one of them can be the primary account.

### *To affiliate a contact with an account*

- 1 Navigate to the Accounts screen.  
The My Accounts list appears.
- 2 In the My Accounts list, select the account to which the contact will be added.
- 3 From the Show drop-down list, select Affiliations.
- 4 Tap the Affiliations list to select it, then tap the New Record button.
- 5 Tap in the Last Name field of the new record.  
The Pick Contact picklist appears.
- 6 Choose a contact, and tap OK.
- 7 In the Affiliations list, tap the Direct field to make it active, then check the box to indicate whether the contact is a direct affiliation.

## Specifying the Best Time to Call on an Account in Medical Handheld

You enter Best Times to Call an account in the Accounts screen. Using the Best Times to Call view, you can enter the best times to call an account based on a selected address.

### *To specify the best time to call on an account*

- 1 Navigate to the Accounts screen and select an account from the My Accounts list.
- 2 From the Show drop-down list, choose Best Times to Call.
- 3 Tap the Best Times to Call list, then tap the New Record button.

**4** Enter the necessary data.

The fields in the Best Times to Call list are described in the following table:

Field	Comments
Start Day	A required field. Tap in this field, then choose desired day from a drop-down list.
Start Time	A required field. Tap in this field, then choose the desired time from a pop-up window.
End Time	A required field. Tap in this field, then choose the desired time from a pop-up window.
Comments	Tap the ellipsis (...) then enter any comments.

## Viewing Sales Data in Medical Handheld

Sales data can be analyzed to measure market potential, target customers, align sales territories, and track market shifts. Sales data is typically syndicated information that is loaded periodically by the Siebel administrator.

You can review this information using the Sales Data view.

### *To view sales data*

- 1 Navigate to the Accounts screen, and select an account from the Accounts list.
- 2 From the Show drop-down list, select Sales Data.
- 3 Review the data in the list on a product-by-product basis.

## Logging and Tracking Service Requests in Medical Handheld

You log new service requests and track the status of service requests for each account on the Accounts screen.

### *To enter a new service request*

- 1 Navigate to the Accounts screen and select an account from the My Accounts list.
- 2 From the Show drop-down list, choose Service Requests.
- 3 Tap the Service Requests list, then tap Log New SR.

The Service Request detail view appears.



- 4 Choose the severity of the service request from the Severity drop-down list, then fill in the remaining fields.

Some fields are described in the following table:

Field	Comments
SR #	System generated value.
Summary	Tap the ellipsis (...) to enter a summary of the service request.
Status	Chose from a list of values.
Sub-Status	Chose from a list of values.
Priority	Choose a value from 1 to 4, with 1 representing the highest priority.
Area	Choose a service request area, such as Emergency Repair or Complaint.
Sub-Area	Choose a service request sub-area, such as Product Information or Finance Complaint.
Asset #	Enter asset, serial, or product ID number.
Symptom	Pick a symptom code, such as New Part Defective or OS Problem.
Resolution	Choose the appropriate resolution, such as Upgrade Part or Documentation Error.
Rate List	List of current rates for service items.
Price List	List of current prices.
Cust Descript	Tap the ellipsis (...) to enter a customer description of the service request.

## Entering Private Notes for Accounts in Medical Handheld

You enter Private Notes from the Accounts screen. Private Notes are those which can only be seen by you.

### *To enter private notes*

- 1 Navigate to the Accounts screen and select an account from the My Accounts list.
- 2 From the Show drop-down list, choose Private Notes.
- 3 Tap the Private Notes view, then tap the New Record button.  
The Date Created field is automatically populated.
- 4 Tap the ellipsis (...) and enter the text for your note, then tap out of the field to close the note.

## Entering Shared Notes for Accounts in Medical Handheld

You enter notes to be shared across your team from the Accounts screen. Shared notes are shared with all employees that are part of a given account.

### *To create shared notes*

- 1 Navigate to the Accounts screen and select an account from the My Accounts list.
- 2 From the Show drop-down list, choose Shared Notes.
- 3 Tap the Shared Notes view, and then tap the New Record button.  
The Date Created field, and the Created By field are automatically populated.
- 4 Tap the ellipsis (...), enter the text for your note, and then tap out of the field to close the note.

## Associating Activities with Accounts in Medical Handheld

An activity is a task or event that is generally, but not always, performed for a contact, account, or opportunity. You will likely have many meetings, calls, presentations, and other activities surrounding an account.

Activities provide a place to enter and track this information. If the activity entered has a time associated with it, it will appear on the Activities and Calendar screens.

### *To associate activities with accounts*

- 1 Navigate to the Accounts screen.
- 2 In the My Accounts list, select the account with which the activity will be associated.
- 3 From the Show drop-down list, select Activities.
- 4 In the Account Activities view, tap the Activities list to select it, and then tap the New Record button.
- 5 In the new row, complete the necessary fields.

The Type field defaults to Other. The fields are described in the following table:

Field	Comments
Type	A required field. From the drop-down list, choose an activity type, such as Call or Maintenance.
Description	Enter a description of the activity, such as Hospital Visit or Quarterly Maintenance.
Status	Enter the status of the activity, such as In Progress or Unscheduled.

Field	Comments
Priority	Enter a value from 1 to 4, with 1 representing the highest priority.
Due	Enter a date for the activity to be completed.

- 6 Tap the default activity Type hyperlink to display the Activities screen's More Info view.
- 7 In the More Info form, add and edit details about the activity.

For more information, see ["Creating Activities in Medical Handheld" on page 156](#).

## Tracking Opportunities with Accounts in Medical Handheld

Accounts are a source of business for your company. An opportunity is a potential revenue-generating event and is another type of information that you can use to manage your accounts within Medical Handheld.

For more information on opportunities, see ["Developing Opportunities in Siebel Medical Handheld" on page 151](#).

### ***To add an opportunity to an account***

- 1 Navigate to the Accounts screen.  
The My Accounts list appears.
- 2 In the My Accounts list, select the account to which the opportunity will be associated.
- 3 From the Show drop-down list, choose Opportunities.
- 4 In the Account Opportunities view, tap the Opportunities list to select it, and then tap the New Record button.
- 5 In the Opportunities list, complete the necessary fields for the new record.  
The Account field is automatically populated with the name of the selected account. Sales stage selections are based on the sales methods used by your organization.

## Working with Contacts in Siebel Medical Handheld

A *contact* is typically a physician, nurse, hospital administrator, or lab technician, and so on. purchasing officer, nurse, physician, or hospital administrator. In a more general sense, a contact is any individual a medical device company deems significant to their business process.

Sales representatives use Medical Handheld to add and update contact profile information which may include adding new contacts, tracking affiliations between contacts and accounts, transcribing relevant notes, and tracking sales data.

This section describes how to manage contact information using all of the views accessible from the drop-down list in the Contacts screen.

The following topics related to opportunities are included in this section:

- [“Adding Contacts in Medical Handheld” on page 148.](#)
- [“Associating Accounts to Contacts with Medical Handheld” on page 149](#)
- [“Associating Contacts with Opportunities in Medical Handheld” on page 149](#)
- [“Adding Private or Shared Notes About a Contact in Medical Handheld” on page 151](#)
- [“Adding Private or Shared Notes About a Contact in Medical Handheld” on page 151](#)
- [“Adding Private or Shared Notes About a Contact in Medical Handheld” on page 151](#)

## Scenario for Managing Contacts in Medical Handheld

This scenario gives one example how you can use Siebel Medical Handheld to manage contacts. You might use Siebel Medical Handheld differently, depending on your business model.

At a trade show, a sales representative exchanges business cards with the people she meets. Instead of waiting until she returns to her office, the sales representative uses Siebel Medical Handheld to enter essential contact information. When she returns to her office, she identifies individuals that might be possible sources for leads.

As the sales representative works with each contact, the possibility of doing business—an opportunity—may arise. If so, she can then create an opportunity and associate contacts and activities with it to track important milestones and key players for closing the deal.

## Adding Contacts in Medical Handheld

Using the Contacts screen and the My Contacts view, you can add contacts and update contact information directly in Medical Handheld.

### **To add contacts**

- 1** Navigate to the Contacts screen.
- 2** From the Show drop-down list, select My Contacts, or Personal Contacts.
  - My Contacts: Use this list for contacts that you might or might not share with the rest of your organization.
  - Personal Contacts: Use this list for contacts that are not shared with the rest of your organization.
- 3** Tap the New Record button, then fill the Last Name and First Name fields.

- 4 From the Show drop-down list, choose More Info, and then complete additional fields, as needed. The following table describes some fields in the Contact form.

Field	Comments
Job Title	A text field where you key in the job title of the contact.
Contact Method	A drop-down list where you can chose the preferred contact method.
Site	Physical location of the account.
Comments	Tap this field, then enter comments. Comments entered are visible depending on the type of contact define. For instance, if you are creating a contact in the My Contacts list, the comments entered for that contact will be visible by other members of your team.

## Associating Accounts to Contacts with Medical Handheld

A contact can be associated to several accounts. For example, a surgeon can be affiliated to a group practice and several hospitals. You can keep track of all the accounts your contact is affiliated to in the Contact Affiliations view.

### *To associate an account to a contact*

- 1 Navigate to the Contacts screen.  
The My Contacts list appears.
- 2 In the My Contacts list, select the contact to whom the opportunity will be associated.
- 3 From the Show drop-down list, choose Affiliations.
- 4 Tap in the Affiliations list, then tap the New Record button.  
The Pick Account list appears.
- 5 Select an Account, and Tap OK.

## Associating Contacts with Opportunities in Medical Handheld

A contact may be a source of revenue for your company. Potential revenue-generating events are called Opportunities. You will want to associate a contact with an existing opportunity to track information about both the opportunity and the contact. For more information, see ["Creating Opportunities in Medical Handheld" on page 152.](#)

**To associate a contact with an existing opportunity**

- 1 Navigate to the Contacts screen.  
The My Contacts list appears.
- 2 In the My Contacts list, select the contact with whom the opportunity will be associated.
- 3 From the Show drop-down list, choose Opportunities.
- 4 Tap in the Opportunities list, then tap the New Record button.  
The Add Opportunities list appears.
- 5 In the Add Opportunities list, select the opportunity to associate with the contact, and then tap OK.

**To associate a contact with a new opportunity**

- 1 Navigate to the Contacts screen.  
The My Contacts list appears.
- 2 In the My Contacts list, select the contact with whom you will associate the new opportunity.
- 3 From the Show drop-down list, choose Opportunities.
- 4 Tap in the Opportunities list, then tap the New Record button.  
The Add Opportunities list appears.
- 5 Tap New, then enter the necessary fields.  
The fields are described in the following table:

Field	Comments
Name	The name of the product.
Account	This field will be automatically populated with the account to which you are associating the opportunity.
Revenue	Tap the ellipsis to enter currency type, amount, and exchange date.
Probability	From the drop down-list in this field, you can chose a probability figure.
Close Date	After tapping the calendar button in this field, choose a close date for the chosen opportunity from the pop-up window.
Sales Stage	From the drop-down list in this field, choose the present stage of the sale.
Primary	The account owner, or primary contact for the account in your organization.

## Adding Private or Shared Notes About a Contact in Medical Handheld

Using the Private Notes and Shared Notes views, you can create and update notes on contacts. Private notes are visible only to the creator of the note; shared notes are available to other sales representatives calling on the contact.

### *To add notes about contacts*

- 1 Navigate to the Contacts screen, and select a contact from the My Contacts list.
- 2 From the Show drop-down list, select one of the following:
  - **Private Notes.** Limits access to the note to the person creating it.
  - **Shared Notes.** Allows all account team members to access the note.
- 3 Tap the New Record button, then in the note field, enter your note data.  
To enlarge the Note field, tap the ellipsis (...).

## Working with Sales Methods in Siebel Medical Handheld

A sales method is a formalized approach or methodology used during the sales process. A sales method can encompass all activities associated with the sales process, from prospecting to forecasting to closing deals. This approach allows sales representatives to use the most appropriate method for opportunities.

The application administrator will create and implement the sales stages your company uses, and then establish values in your Siebel application that represent these methods and stages. A recommended business practice is to designate a default sales method in your Siebel application. This practice allows a sales method to be associated with each opportunity and aids in charting and reporting accuracy.

Sales methods can differ within a company. For instance, a sales method for managing a complex multimillion dollar opportunity may include 15 stages, while a sales method for a simple low-dollar opportunity may require only four stages.

For more information about creating or implementing sales stages, see *Applications Administration Guide*.

## Developing Opportunities in Siebel Medical Handheld

An opportunity is defined as a potential revenue-generating event. An opportunity is usually associated with an account and one or more contacts, products, activities, and quotes.

Examples of opportunities are:

- At a trade show, a company representative expresses interest in purchasing a product.
- When called by a telesales representative, a contact indicates interest in contracting maintenance services.
- In a conversation with an existing client, the client expresses an interest in upgrading to the newest product model.
- While on a regularly scheduled visit, a Sales Rep finds out that one of the MRI machines has broken down and convinces his contact in that hospital to take a look at his company's MRI machine.
- In a conversation with a doctor regarding a newly launched drug-coated stent, the doctor expresses interest.

The following topics related to opportunities are included in this section:

- ["Creating Opportunities in Medical Handheld" on page 152.](#)
- ["Working with Sales Methods in Siebel Medical Handheld" on page 151.](#)
- ["Associating a Contact with an Opportunity in Medical Handheld" on page 154.](#)
- ["Associating a Product with an Opportunity in Medical Handheld" on page 154.](#)
- ["About Opportunity Quotes" on page 155.](#)

## Scenario for Developing Opportunities in Siebel Medical Handheld

This scenario gives one example of how you can use Siebel Medical Handheld to develop sales opportunities. You might use Siebel Medical Handheld differently, depending on your business model.

A sales representative is involved in revenue-generating and customer contact activities at her company. At a trade show she meets a prospective customer who could be a lead for a new business opportunity. Using her Medical Handheld application, the sales representative discovers that the company is listed in Siebel Medical as an account, but the person she met is not listed as a contact associated with the account.

After adding this person as a contact, the sales representative creates the opportunity. Next, the sales representative schedules meetings, records the associated activities, and associates other important contacts with the opportunity.

As the sales process continues, the sales representative gathers and updates information about the account, its contacts, and the opportunity. As the relationship grows, the sales representative can add, view, and share information and key knowledge with other members of the sales team.

## Creating Opportunities in Medical Handheld

Each time you identify an opportunity, you should create a new record. You create new opportunity records in the Opportunity screen.



**To create an opportunity**

- 1 Navigate to the Opportunities screen, and from the Show drop-down list, choose My Opportunities.

The My Opportunities list appears.

- 2 Tap the New Record button, and complete the necessary fields.
- 3 Some of the fields are explained in the following table.

Field	Comments
Name	Required. A value that identifies the opportunity.
Account	Allows you to associate an opportunity with an account.
Description	A text area for additional information about the opportunity.
Site	A default value that populates automatically when you associate the opportunity with a specific account and location.
Primary	Displays the primary Sales Team member for the opportunity.
Revenue	Allows you to enter the currency amount of the opportunity. This field defaults to zero.
Probability %	Allows you to enter the percentage of confidence you have that the deal will close with the specified revenue on the specified close date. Probability automatically updates based on the Sales Method and Sales Stage selected.
Expected Value	Displays a currency value that is calculated based on the potential revenue field multiplied by the value in the probability field. A lower percent in the probability field reduces the expected value that will be included in your revenue forecast.
Close Date	Required. Allows you to enter the expected date on which the opportunity will close. The default date is the same as the Created Date. It is important to modify the date, if the opportunity will close on a different date, since this date is used in revenue forecasting.
Lead Quality	A list of values established by your company that allows you to rank the quality of the lead. Default values include 1-Excellent, 2-Very High, 3-High, 4-Fair, 5-Poor.
Sales Method	A list of values established by your company that list the sales methodologies. For more information, see <a href="#">"Working with Sales Methods in Siebel Medical Handheld"</a> on page 151.
Sales Stage	A list of values established by your company that lists the sales stages associated with the sales method you selected.

## Associating a Contact with an Opportunity in Medical Handheld

As you work with an opportunity, you will want to maintain information about the contacts associated with the opportunity.

The Opportunities screen's Contacts view allows you to associate and review contact-related information for an opportunity.

### *To associate a contact with an opportunity*

- 1 Navigate to the Opportunities screen, and from the Show drop-down list choose My Opportunities.
- 2 In the My Opportunities list, select the opportunity with which you want to associate a contact.
- 3 From the Show drop-down list, choose Contacts.
- 4 Tap the Contacts list to select it, and then tap the New Record button.
- 5 In the Add Contacts dialog box, select the contact or contacts you wish to add, and then tap OK.

**NOTE:** You can also associate new contacts with opportunities.

## Associating a Product with an Opportunity in Medical Handheld

Specific products can be associated with an opportunity. For example, if a customer is interested in purchasing a new product model, this information can be entered in the Products view.

After the information is entered, you can tap the product to find additional information such as product features and prices.

### *To associate a product with an opportunity*

- 1 Navigate to the Opportunities screen.  
The My Opportunities list appears.
- 2 In the My Opportunities list, select the opportunity with which you want to associate a product.
- 3 From the Show drop-down list, choose Products.

- 4 In the Opportunity Products view, tap the Products list to select it, and then tap the New Record button.

Some fields in the Products list are described in the following table:

Field	Comments
Product	Tap in this field to receive a list of values from which you will chose the desired product.
Part Number	This field is automatically filled based on your choice for the Product field.
Net Price	Manually enter the unit price.
Extended Price	This price will be automatically calculated based on the figure you enter in the Quantity field.
Auto Quote	By default this field is checked to indicate that you want to make this record available for auto quotes. Uncheck it if you want to make the record unavailable.

- 5 In the new row, tap in the Products field, then chose the desired product from the Pick Product picklist, and tap OK.
- 6 Tap the quantity field, the enter the desired number, the enter the price of the unit in the Net Price field.  
The Extended Price field will be automatically filled in.
- 7 Fill in the Delivery Date field.
- 8 Leave the Auto Quote field checked if you wish this association to be accessible to Auto Quote.

## About Opportunity Quotes

The Opportunity Quotes view displays quotes that have been generated for a specific opportunity. After adding products to an opportunity in the Opportunity Products view, you can navigate to the Opportunity Quotes view to initiate Auto Quote functionality or to manually create a quote. For more information, see ["Creating Quotes in Medical Handheld" on page 159](#).

## Managing Activities in Medical Handheld

An organization's records should accurately reflect the amount of work required and performed to maintain customer satisfaction. This practice avoids duplication of effort if a different or an additional team member has to get involved. It also keeps everyone up to date as to exactly what activities have occurred and when they have occurred.

Activities are various tasks or events that are performed for contacts, accounts, and opportunities. Activities that are given start times are automatically entered on the activities screen and your calendar.

The following activity management procedures are included in this section:

- ["Creating Activities in Medical Handheld" on page 156](#)
- ["Delegating Activities in Medical Handheld" on page 156](#)
- ["Associating Contacts with Activities in Medical Handheld" on page 157](#)
- ["Adding General Activities Using the Calendar in Medical Handheld" on page 157](#)

## Scenario for Managing Activities

This scenario gives one example of how you can use Siebel Medical Handheld to manage activities. You might use Siebel Medical Handheld differently, depending on your business model.

While working away from his desk, a sales manager receives a call from a customer who wants to visit the sales manager's company for an executive summary meeting. The customer also wants the sales team to perform a product demonstration. The sales manager schedules the meeting using his handheld. After his next synchronization, the meeting appears on calendars of his team members. The sales manager delegates the tasks required to prepare for the meeting, such as preparing presentation slides, reserving a conference room, and configuring the demo system. These activities appear in the sales manager's Activities screen and calendar for the customer's account.

As the sales manager and his team members complete the activities, the activities are marked as done, providing key status information about the opportunity.

## Creating Activities in Medical Handheld

Throughout the day, you have new tasks to accomplish and activities to monitor. These activities are part of your business. By keeping track of these activity records on your handheld, you make sure your team members know about these tasks, and you create a valuable history of your past interactions with customers.

### *To create a new activity*

- 1** Navigate to the Activities screen.  
The My Activities list appears.
- 2** Tap the New Record button, and in the new row, complete the necessary fields.  
A default value is provided in the activity Type field.
- 3** Tap the hyperlink value in the Type field, and in the More Info form, complete the fields.

## Delegating Activities in Medical Handheld

If you work as part of a sales team or are the manager, an important part of managing your activities includes managing other people's activities. When an activity needs to be performed by someone else, you can reassign or delegate it to an employee.

### ***To delegate an activity***

- 1 Navigate to the Activities screen.  
The My Activities list appears.
- 2 In the My Activities list, find the activity that needs to be delegated.
- 3 From the Show drop-down list, select Employees.
- 4 In the Activity Employees view, tap the Employees list to select it, and then tap the New Record button.  
The Add Employees list appears.
- 5 In the Add Employees list, select the employees to whom the activity will be assigned, and tap OK.  
To make an employee the primary for the activity, tap the Primary field to display a check mark.

## **Associating Contacts with Activities in Medical Handheld**

When you add an activity to your calendar, you might also want to have a record of contacts who will be participating in the activity.

### ***To associate a contact with an activity***

- 1 Navigate to the Activities screen.
- 2 In the My Activities list, select the activity with which a contact will be associated.
- 3 From the Show drop-down list, select Contacts.
- 4 In the Activity Contacts view, tap the Contacts list to select it, and then tap the New Record button.
- 5 In the Add Contacts picklist, select the contacts and then tap OK.

## **Adding General Activities Using the Calendar in Medical Handheld**

General activities and appointments must have the Planned Start and Duration fields populated in order to be displayed in the correct time slot on the Daily Calendar view.

### ***To add a general activity in the Calendar view***

- 1 Navigate to the Calendar screen.
- 2 From the Show drop-down list, select Daily, Weekly, or Monthly.
- 3 For My Weekly or My Monthly, select the day on which you want to schedule a general activity.

- 4 Tap the New Record button.

You may also tap an open time slot within the Daily view.

- 5 In the new record, complete the necessary fields for the appointment or task.

Some fields are described in the following table:

Field	Comments
Type	The type of activity. Activity types might be call, email-outbound, demonstration, and so on.
Planned Start	This date-time field defaults to the time selected when you created the new appointment.
Duration	When the duration is updated, the planned completion time is automatically adjusted.
Account	Complete this field if the activity is related to a particular account.
Repeat	Tap the check box to display a check mark if the appointment or task is recurring.  Siebel Handheld Calendar does not support modification of single instances of recurring activities. For example, if you delete or modify an appointment scheduled to recur daily for 10 days, the entire series will be deleted.
Until	This field allows you to indicate the end date of a repeating appointment.

### **To specify contact participants**

- 1 Navigate to the Calendar screen and locate the day the task or appointment occurs.
- 2 Tap the task or appointment hyperlink to display the Calendar form.
- 3 From the Show drop-down list, select Contact Participants.
- 4 In the Calendar Contacts view, tap the Contacts list to select it, and then tap the New Record button.
- 5 In the Add Contacts dialog box, select contacts and tap OK.

### **To specify employee participants**

- 1 Navigate to the Calendar screen and locate the day the task or appointment occurs.
- 2 Tap the task or appointment hyperlink to display the Calendar form.  
  
If the appointment or task repeats over time, you will be asked to indicate if changes to the appointment should be applied to the specific occurrence, or to all occurrences.
- 3 From the Show drop-down list, select Employee Participants.
- 4 In the Calendar Employees view, tap the Employees list to select it, and then tap the New Record button.

- 5 In the Add Employees dialog box, select employees, and then tap OK.

## Developing Quotes in Medical Handheld

When the customer is ready to purchase a product or service, you can develop a quote using Medical Handheld that includes specific prices for products and services with related payment terms.

The following quote management procedures are included in this section:

- [“Creating Quotes in Medical Handheld” on page 159](#)
- [“Using Auto Quote in Medical Handheld” on page 160](#)
- [“Adding Quote Items in Medical Handheld” on page 162](#)
- [“Printing Quotes in Medical Handheld” on page 163](#)
- [“Managing Orders in Medical Handheld” on page 163](#)

### Scenario for Developing Quotes

This scenario gives one example of how you can use Siebel Medical Handheld to develop quotes. You might use Siebel Medical Handheld differently, depending on your business model.

A mobile sales representative relies on quotes to create formal offers to clients for a variety of products and services that her company provides. Using Medical Handheld she can produce accurate offers at the customer site, with up-to-date product and pricing information. When details and pricing are finalized, the sales representative can print the quote and deliver it promptly to the customer.

## Creating Quotes in Medical Handheld

Quotes includes effective dates, price lists, and discounts used in pricing products and services. Before any of this information can be added to a quote, however, the quote must be created with basic information.

### *To create a quote*

- 1 Navigate to the Opportunities screen.
- 2 In the My Opportunities list, select the opportunity for which the quote will be generated.
- 3 From the Show drop-down list, select Quotes.
- 4 In the Opportunity Quotes view, tap the Quotes list to select it, and then tap the New Record button.

The new quote is automatically assigned a record identifier, a revision number, the default status of In Progress, and a created date.

- 5 In the Name field, enter a name for the quote.

When you tab to an adjacent field, the quote name becomes a hyperlink.

- 6 Tap the hyperlink in the Name field to display the More Info form where you can add quote details.

## Using Auto Quote in Medical Handheld

If you are working with an opportunity for which the products and solutions have already been specified in the Opportunity Products view, there is a faster method to generate a quote. You can use the Auto Quote button.

When Auto Quote generates a quote from an opportunity, quote line items are created for each product under the opportunity that has the Auto Quote flag checked. The Quote Item fields are populated from the corresponding Opportunity Product's fields, as shown in [Table 36](#).

Table 36. Quote Item Fields Populated by Opportunity Product Fields

Opportunity Product Fields	Quote Item Fields
Product	Product
Product Quantity	Extended Quantity Requested

In addition, information from the generated quote's Quote # field is copied to the Opportunity Products' Quote # field. The Part Number field of the generated Quote Item is determined by the quote item's product.

[Table 37](#) shows the quote record fields that are automatically populated when Auto Quote is used to create a quote.

Table 37. Quote Fields Populated with Auto Quote

Field	Value
Quote #	System generated
Revision	1
Name	Quote number, unless the user provides another value
Opportunity	The opportunity from which the quote is automatically generated.
Account	The account for the opportunity
Account Site	The location of the account associated with the opportunity
Status	In Progress
Active	Checked
Currency	The currency code for the opportunity
Price List	The price list associated with the opportunity's account
Sales Rep	User ID



Table 37. Quote Fields Populated with Auto Quote

Field	Value
Effective	Current date
Through	Current date plus 30 days (30 days is determined by the QUOTE_EXPIRATION_PERIOD list of values.)

**To create a quote using Auto Quote**

- 1 Navigate to the Opportunities screen.
- 2 In the My Opportunities list, select the opportunity for which the quote will be generated.
- 3 From the Show drop-down list, select Quotes.
- 4 In the Opportunity Quotes view, tap Auto Quote.

Some of the fields are described in the following table:

Field	Comments
Quote #	Read only. A unique, system generated identifier.
Revision	Read only. Automatically generated value which reflects the revision state of the record.
Name	Read only. An automatically generated hyperlink. Tap this field and the More Info view of the quote will appear, along with the opportunity for which the quote is being generated.
Status	A drop-down list which enables you to choose the status of the quote, for instance, Closed, Accepted, Expired, and so on.
Price List	Tap this field to access a picklist of preconfigured price lists.

- 5 Edit fields as necessary, and then tap the hyperlink in the quote Name field.
- 6 In the Quote detail form, enter additional information about the quote.

Some fields in the Quote detail form are described in the following table:

Field	Comments
Opportunity	A hyperlink with the name of the opportunity. Tap this hyperlink to see details in the Opportunity detail view.
Account	The account under which the opportunity is drawn.
Price List	The name of the price list chosen in the Auto Quote view.

Field	Comments
Discount	Tap for a list of values from which you can chose the discount percentage you will be giving the opportunity.
Sales Rep	The name of the user.
Effective	Chose from a calendar view to set the effective date for the quote.
Through	Current date plus 30 days (30 days is determined by the QUOTE_EXPIRATION_PERIOD list of values.)

- 7 From the Show drop-down list, choose My Quote to review the quote.

## Adding Quote Items in Medical Handheld

Using the Quotes screen, you can add line items to quotes that you are developing. If the Auto Quote method is used, products associated with opportunities appear automatically as line items with any applicable discounts.

Line items can be used to:

- Add new products as line items
- Apply manual price adjustments to the line items using the Toggle button

### To add line items

- 1 Navigate to the Opportunities screen.
- 2 In the My Opportunities list, select the opportunity with which the quote is associated.
- 3 From the Show drop-down list, select Quotes.
- 4 In the Opportunity Quotes view, locate the quote in the list, and tap the Name hyperlink.  
The quote detail form appears.
- 5 From the Show drop-down list, select Quote Items.
- 6 In the Quote Line Items view, tap the Line Items list, and then tap the New Record button.
- 7 In the Line Items list, complete the required fields.

Pricing changes are not applied until after you have synchronized with the Siebel client. Values are then based on the product's price in the parent quote's price list.

You can also choose a price list for a quote item. That price list will override the price list you picked for the quote.

Tap the Toggle button to display a form that you can use to add Item discounts and other adjustments.

***To delete line items***

- 1 Navigate to the Quotes screen.
- 2 In the My Quotes list, select the quote containing the line item that will be deleted, and choose Quote Items from the Show drop-down list.
- 3 In the Quotes Line Items view, select the quote item in the list.
- 4 From the Edit Menu, select Delete Record.

**NOTE:** Quote revisions are not supported Siebel Handheld.

**Printing Quotes in Medical Handheld**

Once the customer has expressed significant interest, it is often appropriate to present a hard copy quote.

***To print a quote***

- 1 Navigate to the Quotes screen.
- 2 In the My Quotes list, select the quote containing the line items that will be printed.
- 3 From the Show drop-down list, select Quote Items.
- 4 Align the infrared ports on the handheld device and the printer.
- 5 In the parent Quotes form, tap the Print button.

**Managing Orders in Medical Handheld**

After you have completed the initial quote, and the customer has agreed to the products and prices you have presented, you create a sales order.

The following order management procedures are included in this section:

- [“Creating Orders in Medical Handheld” on page 163](#)
- [“Adding Order Line Items in Medical Handheld” on page 164](#)
- [“Entering Terms and Totals in Medical Handheld” on page 165](#)

**Creating Orders in Medical Handheld**

You can create orders from quotes manually or by using the Auto Order button.

***To create an Auto Order from your quote***

- 1 Navigate to the Quotes screen.
- 2 In the My Quotes list, select the quote from which an order will be generated.

- 3 From the Show drop-down list, select Orders.
- 4 In the Quotes list, select the quote, and then in the Orders list tap AutoOrder.  
A new record appears in the Orders list, with the order date, number, type, status and so on, filled in.
- 5 In the Orders list, tap the Order # hyperlink.
- 6 Tap the Orders Line Items list to select it.  
Line items from the Quote will be carried over to the order.

### ***To manually create an order***

- 1 Navigate to Orders screen.  
The My Sales Orders list appears.
- 2 Tap the New Record button, then complete the necessary fields.  
From the Show drop-down list, choose More Info to display a form where you can add more details.

## **Adding Order Line Items in Medical Handheld**

Once the initial sales order is created, you can complete the line items that make up the order.

- 1 Navigate to the Orders screen.  
The My Sales Orders appears.
- 2 In the My Sales Orders list, select the order to which line items will be added.
- 3 From the Show drop-down list, select Line Items.
- 4 In the Order Line Item view, tap the Line Items list to select it, and then tap the New Record button.  
A new blank record appears.
- 5 Tap in the Product field.  
The Pick Product list appears.
- 6 Tap the Product field and chose a product from the list of values.  
The remaining fields will be automatically populated based product choice.

- 7 Complete any remaining fields for the line item, and repeat these steps to add additional line items.

Repeat the steps to add additional line items.

**NOTE:** Beginning with Siebel Handheld version 7.8, pricing changes are not applied until after you have synchronized with the server (for Direct Server Sync) or Mobile Web Client (for Companion Sync). Any changes to the Product, Part #, Price List, Discount %, and Qty fields will clear the price fields.

After synchronizing, the Totals field is updated with the Quantity Requested total, and the Order record Item Total and Total fields are updated based on the sum of the Line Item Start Price and Net Price fields, respectively.

## Entering Terms and Totals in Medical Handheld

After completing the line items, navigate to the Order Terms view to enter shipping and payment information for the order.

### To add terms and totals

- 1 Navigate to the Orders screen.
- 2 In the My Sales Orders list, select the order.
- 3 From the Show drop-down list, select Order Terms.
- 4 In the Order Terms view, tap the Terms form to select it, then complete the necessary fields in the Terms form.

The fields are described in the following table:

Field	Comments
Payment Terms	Tap in the field, then select the payment term period from a pop-up list.
Ship Carrier	Tap in the field, then select a shipping carrier from a drop down list.
Shipping Instructions	Tap the ellipsis (...), then manually enter any shipping instructions.

**NOTE:** The basic Medical Handheld configuration does not include detailed shipping and billing fields. These fields are based on different business components and can be configured as required.

## Tracking Expenses in Medical Handheld

You can track expenses and create expense reports using Medical Handheld.

The following expense management procedure is included in this section:

["Creating an Expense Report in Medical Handheld" on page 166](#)

["Submitting an Expense Report in Medical Handheld" on page 167](#)

## Creating an Expense Report in Medical Handheld

You can create expense reports in Medical Handheld, then upload them to your server at the time of sync.

### *To create an expense report*

- 1 Navigate to the Expenses screen.

The My Expense Reports list appears.

- 2 In the Expense Reports list, tap the New Record button, complete the Period and Name field, and then choose More Info from the Show drop-down list.

Some fields in the Expense Reports list are described in the following table:

Field	Comments
Expense Report #	Read only. An automatically generated, unique identifier.
Name	Required. Enter a name for the expense report.
Class	A predefined list of values which indicate classes your company deems appropriate for expense reports. Such as, Holiday, or internal.
Status	If you create the expense report with the Handheld device, this field will be prepopulated with the value of In Progress. You may tap in the field to adjust the value to express the current state of the expense report.
Submit To	Read only. A predefined association set up by the system administrator. When you create a new expense report, the Submit To field is automatically populated with the login of manager to whom you report.
Reimbursable	Tap this checkbox to indicate whether the expense is reimbursable.

### *To add detailed line items*

- 1 Navigate to the Expenses screen.
- 2 In the My Expense Reports list, locate the expense report record.
- 3 From the Show drop-down list, select Expense Items.

4 In the Expense Report Line Items view, tap the Line Items list, and then tap the New Record button.

5 In the new row, complete the necessary fields for the line item.

You can not enter Line Items whose Start or End Date is outside of the Expense Report period.

**NOTE:** Medical Handheld Expense Reports functionality does not currently support the Mileage expense type or detailed Hotel expense tax itemization. If these expense types are required, you must enter these items using the desktop Siebel Medical application.

6 Repeat the steps to add line items.

## Submitting an Expense Report in Medical Handheld

After creating an expense report, you need to submit it for approval.

### *To submit an expense report*

1 Navigate to the Expenses screen.

The My Expense Reports screen appears.

2 Select the desired expense report, then tap the Status field, and select submitted from the drop-down list.

The next time you sync to your enterprise system, the expense report will be submitted.

## Creating General Activities in Siebel Medical Handheld

Sales representatives use general activities to manage time and schedule demands and to keep their manager informed of their workload. A general activity in Medical Handheld is used to track noncall tasks such as to-do items, personal events, and correspondence.

In a typical scenario, a sales manager for a medical device company uses the Activities screen to create and track the activities on which she plans to spend her time during the next month. After scheduling a contact call with a customer, she uses the Calendar to review scheduled activities for the upcoming weeks.

This section provides procedures for adding activities from the Activities and Calendar views. The following activity management procedures are included in this section:

■ ["Adding General Activities From The Activities View in Medical Handheld" on page 168](#)

■ ["Adding General Activities From the Calendar View in Medical Handheld" on page 168](#)

## Adding General Activities From The Activities View in Medical Handheld

All activities with valid dates and times appear in the Medical Handheld Calendar views as well as in the Activities views. The Calendar views provide a visual representation of each user's scheduled activities.

**NOTE:** The Planned Start and Duration fields in general activities and appointments must contain entries in order for the appointments and activities to appear in the correct time period in the Daily Calendar view. While the Planned Start field is visible in the Activities screen's My Activities view, this field is not visible in the Contacts screen's Activities and Accounts > Activities views. The Planned Start field can be exposed during application configuration.

### To add a general activity from the Activities view

- 1 Navigate to the Activities screen.

The My Activities list appears.

- 2 Tap the New Record button, then complete the necessary fields.

**NOTE:** Select More Info from the Show drop-down list to edit additional fields for each record.

Some of the fields are described in the following table:

Field	Comments
Type	The type of activity. The values displayed in this drop-down list depend on the value of the Activity field. For example, the activity types that you can select for a contact call are different from those that you can select for a general activity.
Duration	Select a time from 15 to 120 minutes from the drop-down list.
Account	Tapping in this field takes you to a pop-up list with account names.
Repeat	Checking this box allows you to specify the frequency and end date of a recurring activity.

## Adding General Activities From the Calendar View in Medical Handheld

General activities and appointments must have the Planned Start and Duration fields populated in order to be displayed in the correct time slot on the Daily Calendar view.

### To add a general activity in the Calendar view

- 1 Navigate to the Calendar screen.
- 2 From the Show drop-down list, select Daily, Weekly, or Monthly.



- 3 For My Weekly or My Monthly, select the day and time on which you want to schedule a general activity.
- 4 Tap the New Record button, then complete the necessary fields.

Some of the fields are described in the following table:

Field	Comments
Type	The type of activity. The values displayed in this drop-down depend on the kind of activity.
Description	Tap on the ellipsis to add comments or clarification to the activity.
Type	Choose a general activity type from the drop-down list.
Until	The end date of a repeating appointment. If you do not select a value, 12 more appointments will be scheduled.

- 5 To specify contact participants:
  - a From the Show drop-down list, select Contact Participants.
  - b Tap the New Record button.
  - c In the Add Contacts dialog box, select participants and then tap OK.
- 6 To specify employee participants:
  - a From the Show drop-down list, select Employee Participants.
  - b Tap the New Record button.  
The Participants list appears.
  - c Select participants, and then tap OK.

## Managing MedEd Events in Medical Handheld

This section describes how a medical device company can use Medical Handheld to plan a medical education (MedEd) event. A MedEd event refers to a promotional or educational event attended by physicians and medical professionals. An event functions as a forum for exchanging information on a particular disease, illness, therapeutic class, or product. A medical education event can be as simple as a lunch-and-learn in a physician's office or as complex as a seminar series or national sales meeting.

Sales representatives in the field can use Medical Handheld to view and create MedEd events and invite contacts to MedEd events. The following MedEd Event management procedures are included in this section:

- [Creating a MedEd Event in Medical Handheld on page 170](#)
- [Inviting Professionals to MedEd Events Using Medical Handheld on page 170](#)

## Creating a MedEd Event in Medical Handheld

You can create MedEd events directly in Medical Handheld.

### *To create a MedEd event*

- 1 Navigate to the MedEd screen.  
The My Med Ed events list appears.
- 2 Tap the New Record button, then complete the necessary fields.  
Some of the fields are described in the following table:

Field	Comments
Name	Enter a name for the event in this field.
Event ID	The Event ID field is automatically populated.
Objective	A text field in which you can enter a description of the event objective.
Start Date	Date and time that the event starts. Set the time fields before selecting a calendar day.
End Date	Date and time that the event ends. Set the time fields before selecting a calendar day.
Budget	The amount of money budgeted for the event.
Location	A text field where you can enter the location of the event.
Event Status	Indicates whether the event is active, cancelled, completed, in progress, inactive, or planned.
CME Credit	Number of CME (Continued Medical Education) credits that can be earned at the event.
Type	The category of medical education event being offered.

## Inviting Professionals to MedEd Events Using Medical Handheld

When you have scheduled a MedEd event and have decided what sessions will be offered, you can invite health care professionals to attend.

### *To invite a contact to a MedEd event*

- 1 Navigate to the MedEd screen.  
The My Med Events screen appears.
- 2 From the Show drop-down list, select Invitees.

- 3 Tap the New Record button, then in the new row, complete the fields.

Some of the fields are described in the following table:

Field	Comments
Last Name	The contact or invitee. Select from the Pick Contact list. The First Name field is automatically populated based on this choice.
Invitee Status	Indicates whether the invitee has confirmed attendance, is on a wait list, and so on. Pending is the default value.
Role	Describes the selected contact's role at the session. A drop-down list allows you to designate the contact's role in the session.

## Managing Consigned Inventory with Siebel Medical Handheld

Medical products companies tend to manage many different products with very complex characteristics and variations. Some of these products are low volume with high costs while others are high volume with low costs. The margin and turn-over rate can also vary widely across these different products. Different products in a company's portfolio may be tracked differently; within the portfolio some products may be serialized, labeled by lot number, or merely labeled by part number. Additionally, some products have a prescribed expiration date based on product testing data that a company submits to the FDA or other regulatory body as part of regulatory submission, while other product do not. An expired product cannot be reworked for reuse, but rather must be discarded and recognized as a loss.

There are 3 task groups for managing cycle count activity and performing cycle counts:

- **Performing Cycle Count.** You perform cycle count tasks in the Cycle Count views.
- **Analyzing Inventory.** You analyze inventory tasks in the Inventory views.
- **Moving Inventory.** You move inventory tasks in the Inventory and Move views.

### About Barcode Scanning in Siebel Medical Handheld

The Siebel Medical Handheld application is able to parse HIBIC, UCC/EAN and Combined UCC/EAN barcodes. For information on setting up barcode scanning in your handheld device, see ["Administering Barcode Settings for Siebel Medical Handheld" on page 60.](#)

While in scan mode, the application automatically performs the following tasks:

- Scan barcodes.
- Parse data from barcodes. For example: Lot number, Serial Number, Expiration Date.
- Validate Data. Notify sales representatives whether product counted is Short Dated or Expired; as well as notify sales representatives if there are any errors in double-counting.

The function buttons on the Scan Barcodes view are described in the [Table 38](#).

Table 38. Scan Barcodes View Fields

Field	Comments
Stop	Tap this button to disable barcode scanning. After tapping Stop, you will be navigated to the Cycle Count Detail View.
Clear	Tap this button to clear all the fields in the form, and undo any cycle count or product detail record that has been created on that scan.
Move	Tap this button to be navigated to the Part Move View, where a Part Move record will be populated with the current data. For information on part moves, see <a href="#">"Moving Products While Performing a Cycle Count" on page 178</a> .

The fields in the Scan Barcodes list are described in [Table 39](#).

Table 39. Scan Barcodes list Fields

Field	Comments
Product	The name of the product that has been scanned.
Part #	Part number for the product. This number could be the manufacturer's number, the HIBC number or the UCC/EAN number.
Lot #	Lot number to which the product asset belongs. This needs to be set up in the Assets table or included in the Barcode if the product is tracked by lot number or is a unique product that has a lot number included in its unique expression.
Serial #	Serial number for the product. This needs to be set up in the Assets table or included in the Barcode if the product is serialized or is a unique product that has a serial number included in its unique expression.
Asset #	Asset number for the product asset.
Use By	Expiration date for product asset.
Days	Calculated field. Calculates number of days until expiration.
State	Calculated field. Calculates whether the product asset is good, shortdated or expired.

# Managing and Performing Cycle Counts with Medical Handheld

You can view information on all your cycle counts. Because contact information for the inventory location on which you are doing your cycle count can be found on the same view, you can use this information to schedule the cycle count.

## Scenario for Performing a Cycle Count

This scenario is one example of how you can use Siebel Medical Handheld for performing part movements. You might use Siebel Medical Handheld differently, depending on your business model.

A Sales representative for a medical device company synchronizes with a Siebel client at the start of the day to get the latest information downloaded to her handheld device. She navigates to the My Pending Cycle Counts view to see all cycle counts that have been assigned to her. She sees one that is due two weeks from the present, and uses the information on inventory location to call the contact and schedule an appointment. While on the phone, she taps the Schedule button to navigate to the Calendar views to create an appointment for a cycle count. She then updates the status of cycle count status to Scheduled.

On site, she outfits her handheld device with a compatible in hand scan card, navigates to the My Pending Cycle Counts view, selects the cycle count to perform and taps Start which navigates to the Cycle Count Detail View. She taps Scan to enable the barcode scanner and display the Scan Barcodes pop-up window. She then aligns the barcode scanner with the part number barcode on the first package and presses the device button to initiate screening.

For information on supported scanners, see *System Requirements and Supported Platforms* on Siebel SupportWeb.

The following cycle count tasks are included in this section:

- [“Viewing, Scheduling and Accessing Cycle Counts in Medical Handheld” on page 174](#)
- [“To schedule a cycle count” on page 175](#)
- [“Starting a Cycle Count” on page 175](#)
- [“Performing a Cycle Count Using Barcode Scanning” on page 176](#)
- [“Counting Products by Electronically Entering Product and Asset Records” on page 177](#)
- [“Moving Products While Performing a Cycle Count” on page 178](#)
- [“Completing Cycle Counts” on page 179](#)

## Viewing, Scheduling and Accessing Cycle Counts in Medical Handheld

Users can review all pending cycle counts assigned to them. For information on how administrators can set assign cycle counts, see ["Assigning Cycle Counts for Medical Handheld" on page 86](#). Users can determine critical information on these cycle counts to help them prioritize their activities. They can view information on inventory location, due date, and status for each of their cycle counts. Using information on the Medical Handheld, users can navigate to the Calendar view to schedule their cycle counts.

### To view pending cycle count assignments

- 1 Navigate to Cycle Count.

The My Pending Cycle Counts list appears, with a form listing pertinent details of the site. The fields in the My Pending Cycle Counts list are described in the following table:

Field	Comments
CC#	This field is populated by a hyperlinked number which indicates the cycle count number. Tap this hyperlink to gain access to the individual cycle counts in the queue, which are displayed in the Cycle Count Detail view.
Inv Location	This field displays the location where the cycle count will take place.
Due Date	The date and time the cycle count is to be completed.
Status	This field displays the status of the pending cycle count. You set this field to reflect current status of cycle count. The choices are: Open, Assigned, Scheduled, In Progress, Done, and Closed.
Start Date	Updated when a user taps the Start button while initiating the cycle count.
End Date	The date the cycle count ended. The field is updated when a user taps Count Complete at the end of a cycle count.
Account	The name of the inventory location, where the inventory will be counted, for instance a laboratory, administration office, or warehouse, and so on.
Owner	The employee to which the cycle count is assigned.

### To access cycle count records

- 1 Navigate to Cycle Count.

The My Pending Cycle Counts list appears sorted in ascending order by due date.

- From the My Pending Cycle Counts list, tap the appropriate cycle count hyperlink in the CC# field. The Cycle Count Detail view appears, along with a detailed list of products at that site. The fields in the Cycle Count Detail view are described in the following table:

Field	Comments
Location	The physical location where the inventory will take place, such a hospital or lab. This field is a read only.
Account	The name of the account where the inventory is billed. This field is read only.
Comments	You can enter comments associated with the account in this field.

The fields in the Product Detail list are blank upon initiating a cycle count. Some of the fields are described in the following table:

Field	Comments
Product	A hyperlink, listing the product name, which links to the product detail view.
Part #	Part number as assigned to the item.
Description	Description of the item. Tap the ellipsis (...), and then enter a description.

### **To schedule a cycle count**

- Navigate to Cycle Count.
 

The My Pending Cycle Counts list appears sorted in ascending order by due date.
- Select the desired cycle count record.
- In the Cycle Count Detail view, tap the Schedule button.
 

The Weekly Calendar view appears.
- Create an appointment in the Calendar view for the cycle count.
 

For information on working with Calendar views, see ["Adding General Activities Using the Calendar in Medical Handheld"](#) on page 157.

## **Starting a Cycle Count**

Once you are ready to perform a cycle count, you can initiate a count from the Pending Cycle Count view. Starting a cycle count would automatically changes the status of the cycle count to Started and navigates you to the Cycle Count Detail view, where you can start counting products.

### To start a cycle count

- 1 Navigate to Cycle Count.

The My Pending Cycle Counts list appears sorted in ascending order by due date.

- 2 Select the desired cycle count record, then tap Start.

The Cycle Count Detail View appears.

## Performing a Cycle Count Using Barcode Scanning

After initiating a cycle count, you are now able to count products in the Cycle Count Detail view. There are two ways to perform the count. You can count products using barcode scanning, if your device is outfitted with a supported scanner, or you can electronically enter product and asset records in the Cycle Count Detail view. For information on supported scanners, see *System Requirements and Supported Platforms* on Siebel SupportWeb.

### To count products using barcode scanning

- 1 In the Cycle Count Detail view, tap the Scan button.

The Scan Barcodes Form appears. The fields in the Scan Barcodes form are described in the following table:

Field	Comments
Product	Name of the product.
Part #	Product part number.
Lot #	Lot number of the product asset being scanned.
Serial #	Serial number of the product asset being scanned.
Asset #	Asset number of the asset being scanned. Auto-generated if there is no data on Asset number on the barcode.
Qty	Quantity found on the product asset being scanned.
Use By	Expiration date of the product asset being scanned.
Days	Calculated field, the number of days until the product expires calculated based on current date.
State	Calculated field. A product asset can be Good, Short-Dated, or Expired. A product is short dated if Days is less than Short Days defined for this product.

- 2 Align the device scanner to the barcode and hit the device button to initiate scan.

An audio beep will confirm the scan. Data from the barcode is parsed into appropriate fields on the Scan Barcodes Form.



- a If the product requires only one barcode, the Days and Status field will be calculated and the application will provide appropriate audio and visual confirmation depending on the State as follows:

State	Outcome
Good	Audio beep
Short Dated	Audio beep
Expired	Audio beep and pop-up window

For expired products, the you would have to tap OK on the pop-up to acknowledge that product is expired. You cannot continue to the next scan without acknowledging this pop-up.

- b If the product requires two barcodes, align the device scanner to the second barcode and hit the device button to initiate scan.

An Audio beep confirms scan. Data from barcode is parsed into appropriate fields on the Scan Barcodes Form. Use By Days and Status will be calculated and the application will provide appropriate audio and visual confirmation. See the previous step.

- 3 Repeat the previous steps for all products that will be counted by barcode scanning
- 4 Tap Stop to navigate back to Cycle Count Detail view.

## Counting Products by Electronically Entering Product and Asset Records

When you are counting products during a cycle count, you are actually counting assets for that product. An asset is an instance of a product. Depending on how a product is defined in the Product Administration views, you may need to create new assets and associate these assets to a product when counting. This process is done automatically as part of the barcode scanning process. However, if barcode scanning is not enabled and you are counting products by electronically adding records, then you need to specify the product and associate assets to the product.

### *To add products to a cycle count*

- 1 Navigate to Cycle Count.  
The My Pending Cycle Counts list appears sorted in ascending order by due date.
- 2 Select the desired Cycle Count record.
- 3 From the Show drop-down list, select Cycle Count Detail.
- 4 Tap in the Cycle Count Detail list to make it active, then tap the New Record button.
- 5 Tap the arrow drop down on the Product field  
The Products picklist will pop-up.

- 6 Select a product from the Products pick applet and tap OK button.  
Repeat the procedure for as many products as required.

### ***To associate an existing asset to a product***

- 1 Tap in the Cycle Count Detail list to make it active.
- 2 Select the product with which you would like to associate the asset.
- 3 Tap the Product hyperlink.  
The Product Detail View appears.
- 4 Tap in the Product Detail list, then tap the New Record button.
- 5 Tap the arrow in the Lot # field.  
The Assets picklist appears.
- 6 Choose the desired asset, the tap OK.
- 7 Tap the Back button to navigate to the Cycle Count Detail view

### ***To associate a new asset to a product***

- 1 Tap in the Cycle Count Detail list to make it active.
- 2 Select the product with which you would like to associate the asset.
- 3 Click the Product hyperlink.  
The Product Detail View appears.
- 4 Tap in the Product Detail view, then tap the New Record button.
- 5 Tap the arrow for Lot#, Serial#, or Asset# field.  
The Assets picklist appears.
- 6 Tap New from the Assets picklist.
- 7 Enter required information for the asset  
**NOTE:** Asset# is auto-generated and Unique ID is read-only. If the product is defined to be serialized in the Product Administration views, Qty will also be read-only.
- 8 Tap OK  
Repeat the previous steps if you need to create new assets and associate with this product.
- 9 Tap the Back button to navigate to the Cycle Count Detail view.

## **Moving Products While Performing a Cycle Count**

You can choose to move a product while performing a cycle count. See ["Moving Inventory with Medical Handheld" on page 179](#).

## Completing Cycle Counts

After counting products, you can review the products and assets you counted. You can then complete the cycle count to make sure that inventory information on the server is updated with information from your cycle count when you synchronized the handheld.

### *To complete a cycle count*

- 1 On the Cycle Count Detail View, Tap Count Complete.

**NOTE:** Note: If you performed a part move that required approval, you will be navigated to the Move Approvals view. To capture a signature for an approval-required move, see ["Capturing Signatures for Approval-Required Moves"](#) on page 183.

## Moving Inventory with Medical Handheld

You can move products that are expired or short-dated from any source location to any destination location. You can decide to move products while performing a count (for example, an expired product) or after a count (for example, a short-dated product that you believe would have a higher probability of being used in another inventory location). You may also decide to move inventory to another sales representative's trunk (for example, swap inventory).

### Scenario for Performing Part Movements

This topic gives one example of how you can use Siebel Medical Handheld for performing part movements. You might use Siebel Medical Handheld differently, depending on your business model.

A medical devices sales representative is in the middle of a cycle count. While scanning a product, she is notified by a beep and dialog box that the product just scanned is expired. She taps OK in the dialog box, and sets aside the product as something she will need to take out of that inventory location. To record this, she taps Move while still in the Barcode Scan pop-up view. This brings her to the Part Move view which lists the product and asset she is moving. Most fields in this view will be prepopulated, so she inspects those fields, then taps Accept. A dialog box appears notifying her that the move will not be committed until she completes her count. She taps OK, then taps the back button to get back to the Scan Barcodes view. She taps Stop to disable scanning and taps Count Complete to complete her cycle count. This move requires an approval so she is navigated directly to the Move Approvals view. Additionally, there were a couple of products that were short dated, and she would like to discuss them with her contact. After discussing, she and the contact agree that these short dated products are better off being moved so she navigates to the Inventory Assets view, selects the asset she wants to move, and taps the Move button. This again brings her to the Part Move form, she inspects the data, is confident it is accurate, and taps Accept.

Because this inventory location is set up to require approval when products are being moved out of the location, she needs to capture a signature for this move. After tapping accept, she is navigated directly to Inventory Move Approvals view, where the signature can be captured.

You can initiate a move from a number of views on the handheld. You can decide to move an expired product as part of the cycle count process. Or you can decide to move product as a stand-alone process.

You can perform the following tasks with inventory:

- "Moving Inventory while Performing the Count" on page 180
- "Moving Assets while Analyzing Inventory" on page 181
- "Moving Products as a Stand-Alone Process" on page 182

## Moving Inventory while Performing the Count

You can choose to move a product while performing a cycle count. If you scan an expired product, you can choose to set it aside and record the part move before you scan the next product. This can also be done while performing a count by electronic addition of product and assets

### *To move a product from the Scan Barcodes view while scanning products during a count*

- 1 While in the Scan Barcodes view, tap Move.

**NOTE:** After scanning expired product, an Expired Product pop-up will appear. Acknowledge this message by tapping OK on the pop-up.

The following table explains some of the fields:

Field	Description	Pre-Default Value
Type	Transaction Type	Stock Transfer
From	Source Inventory Location	Inventory location on which the cycle count is being performed.
To	Destination inventory location	Representatives' inventory trunk, if defined.
Product	Product being moved.	Product name of the product that was scanned.
Qty	Quantity	Read-only depending on how the product is defined in Product Administration view.
Requires Approval	Check flag indicating whether part move requires a signature approval.	Read-only.

- 2 Review and update information as needed.

- 3 Tap Accept to accept the part move, or Cancel to void the transaction.

**NOTE:** Upon tapping Accept for a move that requires approval, an Error dialogue box will appear specifying: "The Part Move could not be committed due to a cycle count in progress at the Source Location. Your request has been saved and will be processed when the Cycle Count has been completed at the Source Location."

- 4 Tap OK to acknowledge and navigate back to the Part Move view.
- 5 Tap the Back button to go back to the Scan Barcodes view.

### ***To move a product from Cycle Count Detail view while performing a count by electronically entering products and assets***

- 1 After electronically adding an asset, navigate to the Product Detail View.

For information on adding an asset, see ["To add products to a cycle count" on page 177](#).

- 2 Select the asset you want to move and tap Move.

The Part Move form appears with product, asset, and inventory information prepopulated.

- 3 Review and update information as needed.
- 4 Tap Accept to accept the part move or Cancel to void the transaction.

**NOTE:** Upon tapping Accept for a move that requires approval, an Error dialogue box will appear specifying: "The Part Move could not be committed due to a cycle count in progress at the Source Location. Your request has been saved and will be processed when the Cycle Count has been completed at the Source Location."

- 5 Tap OK to acknowledge, and navigate back to the Part Move view.
- 6 Tap the Back button to go back to the Product Detail View.

## **Moving Assets while Analyzing Inventory**

While discussing the results of your cycle count with your contact, you may decide to move some short-dated products to another inventory location where they have a higher probability of being used. You can initiate this move from the Inventory Assets view or from the Move Transactions view.

### ***To move a product from Inventory Assets view***

- 1 Navigate to the Inventory screen, then select Assets from the Show drop-down list.
- 2 In the Assets list, select asset record.

**3** Tap Move.

Part Move form appears with product, asset, and inventory information prepopulated as described in the following table:

Field	Description	Pre-Default Value
Type	Transaction Type	Stock Transfer.
From	Source Inventory Location	Inventory location on which the cycle count is being performed.
To	Destination inventory location	Representative's inventory trunk, if defined.
Product	Product being moved.	Product name of the product that was scanned.
Qty	Quantity	Read-only depending on how the product is defined in Product Administration view.
Requires Approval	Check flag indicating whether part move requires a signature approval.	Read-only.

**4** Tap Accept to accept the part move or Cancel to void the transaction.

**NOTE:** Tapping Accept would commit the transaction. If this move requires an approval from your contact at the inventory location, you will be automatically navigated to the Move Approvals view. To move more inventory, tap Back button to navigate back to Inventory Assets view and repeat the previous steps.

## Moving Products as a Stand-Alone Process

You can also move inventory as a stand-alone process.

### *To move inventory from the Move Transactions view*

- 1** Navigate to Move, then from the Show drop-down list, choose Inv Transactions.
- 2** Tap Move.

The Part Move Form appears with product, asset, and inventory information prepopulated as described in the following table:

Field	Description	Pre-Default Value
Type	Transaction Type	Stock Transfer
From	Source Inventory Location	None. Required.
To	Destination inventory location	None. Required.

Field	Description	Pre-Default Value
Product	Product being moved	None. Required.
Qty	Quantity	0. Read-only depending on how the product is defined in Product Administration views.
Requires Approval	Check flag indicating whether part move requires a signature approval.	Read-only.

- 3 Tap in the Detail view, then update the From, To, and Product fields.
- 4 Tap in the Assets list to make it active, and then tap the New Record button.
- 5 Tap the Lot#, Serial#, or Asset# drop-down control for the new record created.  
The Pick Asset list appears.
- 6 Select an asset record, then tap OK.
- 7 Tap Accept to accept the part move or Cancel to void the transaction

**NOTE:** Tapping Accept commits the transaction. If this move requires an approval from your contact at the inventory location, you will be automatically navigated to the Move Approvals view. To move more inventory, tap the Back button to navigate back to Move Transactions view and repeat the steps above.

## Capturing Signatures for Approval-Required Moves

You can capture signatures directly on the handheld for moves that require approval. This approval can be enforced at the inventory location level or at the product level by your System Administrator. For more information, see ["Moving Inventory with Medical Handheld" on page 179](#). If a move requires approval, you will be automatically navigated to the Inventory > Move Approvals view.

### ***To capture a signature for an approval-required move:***

- 1 On the Inventory Move Approval view, tap in the Move Approval List to make it active.

**NOTE:** Make sure that the Pick field has a check for all move transactions that you want to capture signatures for.

- 2 Tap Sign.  
The Signature Capture pop-up appears.
- 3 Capture the signature from the contact, then tap Accept.

# Analyzing Inventory with Medical Handheld

Analyzing inventory is critical task in managing consigned inventory. You can view all assets that are in that inventory location and determine which short-dated assets would have a higher probability of being used in another inventory location. You can also view detailed inventory and usage information on consigned inventory for that inventory location and assess whether the customer is complying with its contractual commitment of minimum level of inventory. Lastly, you can view detailed inventory and usage for all products and product classes or groups in a hierarchical format.

## Scenario for Analyzing Inventory Results

This scenario is one example of how you can use Siebel Medical Handheld to analyze inventory. You might use Siebel Medical Handheld differently, depending on your business model.

After completing a cycle count, a medical representative taps Count Complete on her handheld device. The application navigates her to the Inventory Detail view where she can review the count and usage results at different levels in the product hierarchy. She then taps Consignment to examine the customer's adherence to the contract. Based on the usage summary and the consignment data, she determines that she should discuss adjusting consignment levels with the doctor or contact that site.

When analyzing inventory, you can perform the following tasks:

- ["Viewing Hierarchical Results for Inventory and Usage" on page 184](#)
- ["Viewing Results for Consigned Inventory" on page 186](#)
- ["Viewing Assets in an Inventory Location" on page 187](#)

## Viewing Hierarchical Results for Inventory and Usage

You can view detailed inventory and usage information on products, product classes, and product groups for an inventory location. Medical Handheld tracks this relationship using a product hierarchy approach. You can view results for all products in the product hierarchy through explorer type views that let you go down and up various levels in the product hierarchy.

### About Product Hierarchies

A product hierarchy is a grouping of products. It is a way to track relationships between products, product groups, or product classes. A product hierarchy is similar to a family tree on which you have root parent product, parents and child products, and leaf-level products. Your company can track many product hierarchies for a certain inventory location.

Your administrator defines this product hierarchy as part of the product administration process. Your administrator also defines which products are being tracked for an inventory location and up to what level of the product hierarchy will be tracked on the handheld.



## About Usage Calculations

Sales representatives can use the Medical Handheld to analyze usage behavior on consigned inventory. They can compare Average Usage (Field called 'Use' in the Inventory Detail views) and Historical Average Usage (Field called 'Avg' in the Inventory Detail views). Average Usage is the quantity used over a pre-defined number of days based on the last two cycle counts performed. The Historical Average Usage is the quantity used over a pre-defined number of days based on all cycle counts ever performed for that product. By comparing these two calculations, you will be able to determine whether there are any significant changes to usage behavior for a certain product. You can use this information to identify cross-sell and up-sell opportunities.

For details on how Usage is calculated, please refer to ["Administering Siebel Medical Handheld for Consignment Inventory Management"](#) on page 75.

**NOTE:** Usage is calculated when Sales Representatives tap 'Count Complete' button as they complete a cycle count. It will only be calculated for products that are counted during that cycle count. Also, Usage numbers will not be calculated during the first time that a cycle count is performed on an inventory location. Usage calculations need a reference cycle count, since it is the first cycle count, the application will not be able to calculate meaningful numbers.

### To access hierarchical inventory and usage results

- 1 Navigate to Inventory.

The Inventory Locations screen appears.

- 2 Select the inventory location from the Inventory list.
- 3 From the Show drop-down list, select Inventory Detail.

**NOTE:** You can also be automatically navigated to the Inventory Details view after completing a cycle count.

- 4 Tap Roll up.

**NOTE:** Tapping Roll up ensures that inventory and usage is calculated using the latest cycle count results and aggregates these values up through the product hierarchy

- 5 Tap on the Inventory list, and tap the any product record's hyperlink.

The Product Hierarchy view appears. The top list applet shows top-level products. The bottom applet lists all child products for product that is selected on the top list applet. The following table lists the information which is available for the top and bottom lists applets.

Field	Comments
Product	Name of the product.
Part #	Product part number.
Min	Contracted minimum level of inventory required for that product in the inventory location. This is the minimum inventory that this customer agreed in return for pricing benefits.
Level	Flag to identify whether this product is consigned to the inventory location.

Field	Comments
Qty	Current level of inventory.
Delta	Calculated. Difference between Min and Qty. If negative, this is the amount less than the minimum level required.
Use	Calculated. Average Usage. Average Usage is the average quantity used within a pre-defined number of days based on last two cycle counts. Please refer to About Usage Calculations for details.
Avg	Calculated. Historical Average Usage. Historical Average Usage is the average quantity used within a pre-defined number of days based on all cycle counts performed for that product.

- 6 Select a different product in the top list applet to show its child product information in a subordinate list.
- 7 Navigate down the product hierarchy to show next level parent and child product information. See ["To navigate product hierarchy" on page 186](#) for more information.

### ***To navigate product hierarchy***

- 1 In the Product Hierarchy view, tap Down.  
Both lists refresh to show second-level parent and child products.
- 2 Continue to tap Down to navigate down the product hierarchy until you reach leaf-level products, or do the following:
  - Tap Up to navigate up the product hierarchy.
  - Tap the Back button to go back to the Inventory Detail view.

## **Viewing Results for Consigned Inventory**

You can keep track of compliance to contractual commitments and detailed inventory and usage information for consigned inventory at an inventory location.

### ***To view results for consigned inventory:***

- 1 Navigate to Inventory.  
The Inventory Locations screen appears.
- 2 Select the inventory location from the Inventory Locations list.
- 3 From the drop-down list, select Inventory Detail.

**NOTE:** You can also be automatically navigated to the Inventory Details view after completing a cycle count.

**4** Tap the Consignment button.

The Consignment Detail view appears. The top form applet shows information on the inventory location and last roll up date. The bottom applet lists all products that are consigned at that inventory location regardless of their place in the product hierarchy. The following table lists the information which is provided for all consigned products:

Field	Comments
Product	Name of the product.
Part #	Product part number.
Min	Contracted minimum level of inventory required for that product in the inventory location. This is the minimum inventory that this customer agreed in return for pricing benefits.
Qty	Current level of inventory
Delta	Calculated. Difference between Min and Qty. If negative, this is the amount less than the minimum level required.
Use	Calculated. Average quantity used per day based on last two cycle counts.
Avg	Calculated. Historical average quantity used per day based on all cycle counts.

**5** Tap the Back button to navigate to the Inventory Detail view.

## Viewing Assets in an Inventory Location

You can determine which products and assets are located in an inventory location. For each asset, you will be able to determine critical information to manage the inventory, such as expiration date and status.

### *To view assets in an inventory location*

**1** Navigate to Inventory.

The Inventory Locations screen appears.

- 2 Select an inventory location, and then select Assets from the Show drop-down list.

The Inventory Assets view appears. The top applet shows information on the inventory location. The bottom applet provides detailed information for all assets located in that inventory location, as follows:

Field	Comments
Product	Name of Product.
Part #	Product part number.
Lot #	Lot number of product asset being scanned.
Serial #	Serial number of the product asset being scanned.
State	Calculated field. A product asset can be Good, Short-Dated, or Expired. A product is short dated if Days is less than the Short Days defined for this product.
Qty	Quantity found on the product asset being scanned.
Days Left	Calculated field, the number of days until the product expires calculated based on current date.
Use By	Expiration date of the product asset being scanned.

**NOTE:** You can also move products from the Inventory Assets view. To do this, see [“Moving Assets while Analyzing Inventory”](#) on page 181.

# A

## Troubleshooting

This appendix addresses some of the common issues faced while deploying Siebel Handheld. The appendix presents troubleshooting tips in three areas:

- Installation
- Performance
- Log Files

The audience for this appendix is Siebel database administrators, system administrators, and application administrators.

- ["Installation" on page 189](#)
- ["Synchronization" on page 190](#)
- ["Log Files" on page 192](#)
- ["SQLTrace" on page 194](#)
- ["End User Error Messages" on page 195](#)
- ["Web Server Timeout Errors" on page 195](#)
- ["Handheld Device Timeout Errors" on page 196](#)
- ["Performance" on page 196](#)

## Installation

Siebel Handheld supports a specific and limited set of devices, handheld OS, desktop OS, server OS, server databases, and languages. This range of devices and platform support varies widely across the range of Siebel Handheld releases and must be carefully checked to confirm support. See *System Requirements and Supported Platforms* on Siebel SupportWeb for your Siebel application for information on supported Handheld OS, desktop OS, server OS, and server databases.

### Client Installation, Backup, and Restore

If you encounter problems while installing the Siebel Handheld application on client devices from a desktop PC, refer to the following checklist. Most installation problems are covered by this checklist.

- Confirm that the device is certified and supported. Refer to *System Requirements and Supported Platforms* on Siebel SupportWeb.
- Confirm that the device has 64 MB or higher of RAM with the majority of it available for the Siebel Handheld application.
- Make sure an ActiveSync connection is running (green icon). If not, check your computer to make sure that the serial or USB port is activated and functioning correctly.

- If previous versions of Siebel Handheld were installed on the device, make sure you uninstall the application. See [“Uninstalling the Siebel Handheld Application” on page 122](#).

Siebel Handheld binaries may also be installed to a CompactFlash card to conserve (RAM) memory. The application will still be loaded into memory when it executes. To install on the CompactFlash card, set the ApplicationBinariesLocation and ApplicationDataLocation parameters in the setup.ini file. See [“Setting Up Siebel Handheld Application Installation on a CompactFlash Card” on page 107](#).

Siebel Handheld (application only - no data) may also be copied onto a CompactFlash card to aid in deployments. The initial backup image should be made of a device that has *not* done an initial synchronization. An initial synchronization will still be required by each user to receive the configuration and data. For information on backup utilities, see the documentation accompanying your handheld device.

It is also possible to back up Siebel Handheld on a PC using the Backup/Restore feature within ActiveSync.

## Synchronization

Synchronization problems can be caused by incorrect settings in the Siebel Handheld setup.ini or .cfg files. Be sure that application names, data sources, and .srf files are correct.

Make sure to set the SyncURL setting in the client setup.ini file for all synchronization methods. Also, be sure to grant the user visibility to these views in the Administration - Application > Responsibilities view.

**NOTE:** Check the log files and confirm the accuracy of the generated connect string.

## Companion Sync Checklist

Use the following list to troubleshoot problems you encounter using Companion Sync.

- Is the latest version of ActiveSync (version 3.5 or later) installed and running?
- Is ActiveSync connected (green icon)?
- Do you have the correct data source defined in the handheld .cfg file?
- If you have problems logging in, check to make sure that you can use the same credentials to log into the desktop client.
- Remember to keep a 1:1 ratio of users to devices. Only a single user may log in to sync each device. Failure to do so causes data corruption.

When using a SRF with a custom configuration and the sync error occurs during initialization, follow the steps below to troubleshoot problems:

### ***To troubleshoot Companion Sync configuration errors***

- 1 Add HandheldSyncLogLevel = 5 to the [pda] section in the .cfg and look for more error details in the CompSync log.

- 2 Use the Validate function in Siebel Tools to look for a configuration error.
- 3 Remove handheld views from user responsibility until synchronization passes the error point.
- 4 Remove DefaultBusObjs from Administration - Mobile > Application Administration > Settings until synchronization passes the error point.

## Direct Server Sync Checklist

Use the following checklist to troubleshoot problems you encounter using Direct Server Sync.

- Did you install all client and server components successfully?
- Is there a PDA object manager (OM) running on the Siebel Server?
- Did you bounce the IIS, SWE, and Siebel Server after installation?
- Do you have network access to the URL for DSS? Can you ping the IIS server from inside and, if applicable, from outside the firewall?
- Can you successfully run a SWE command?
- Do you have the correct SyncURL defined in the setup.ini file?
- Is the network connection working from the device? Try Pocket Internet Explorer.
- If you have problems logging in, check to make sure that you can use the same credentials to log into the desktop client.
- Remember to keep a 1:1 ratio of users to devices. Only a single user may log in to sync each device. Failure to do so causes data corruption.

When using a SRF with a custom configuration and the sync error occurs during initialization, follow the steps below to troubleshoot problems:

### ***To troubleshoot Direct Server Sync configuration errors***

- 1 Turn on Handheld Sync logging to 5 and look for more error details in the Siebel Handheld Synchronization OM log. For more information, see ["Configuring Direct Server Sync Logging Levels" on page 98](#).
- 2 Use the Validate function in Siebel Tools to look for a configuration error.
- 3 Remove handheld views from user responsibility until synchronization passes the error point.
- 4 Remove DefaultBusObjs from Administration - Mobile > Application Administration > Settings until synchronization passes the error point.

## Re-synchronizing Problems

Generally if, for whatever reason, synchronization is terminated, the end user is prompted with a message and the synchronization process ends. In this situation the synchronization session is allowed to close. However, if the connection with the server is unintentionally broken, the session may not have a chance to close before the connection is broken. Therefore, if the end user tries to immediately synchronize again, he may get an error message and may not be able to synchronize. Should this occur, the end user should wait for a period of time (generally, 15 minutes) to allow the session to time out and terminate. Once the session terminates, the end user should be able to synchronize again.

## Log Files

This section includes the following topics:

["Direct Server Sync Log and Output Files" on page 192](#)

["Companion Sync Log and Output Files" on page 193](#)

["Handheld Device Log" on page 193](#)

## Direct Server Sync Log and Output Files

The name of the Direct Server Sync Log is the OM name plus the task ID for that log session. The log is found in the log subdirectory under the Siebel root directory. Depending on the amount of detail enabled, this file can give a good perspective of what has happened during synchronization regarding the Siebel OM.

To assist Siebel Technical Support, collect the following files when logging a Siebel Handheld service request. The following files are found on the machine where Siebel Server is installed:

- All server sync user files in the *Siebel Root\siebsrvr\hhsync\application directory\user id\node id* directory.
- Server application event log extract.
- Server system event log extract.
- All files in the *Siebel Root\siebsrvr\log* directory including *CompName\_task.log*.  
where *CompName* is the name of an application server component, and *task* is a Siebel task number. Each sync session is assigned a new Siebel task, so there will be many of these. An example "CompName" value is "SalesCE\_enu" (note that language is part of the component name itself).
- All files from all subdirectories under the *Siebel Root\siebsrvr\logarchive* directory.
- Server perfmon log files (showing memory, network, disk performance), if available.

The following files are found on the machine where the Web Server (that is, IIS) is installed:

- SWE log files from *Siebel Root\eappweb\log* (all files).



- IIS server application event log extract.
- IIS server system event log extract.
- IIS server perfmon log files (showing memory, network, disk performance), if available.

## Companion Sync Log and Output Files

The name of the Companion Sync Log is compsync.log. It is found in the log subdirectory under the Siebel root directory. Depending on the amount of detail enabled, this file can give a good perspective of what has happened during synchronization regarding the Siebel object manager.

- *Siebel Root\client\hhsync\application directory\user id\node id* directory.
- NT application event log extract.
- NT system event log extract.
- All files in the *Siebel Root\client\log* directory.
- Perfmon log files (showing memory, network, disk performance), if available.

## Handheld Device Log

The siebel\_log.txt file is found in the /Program Files/Siebel Handheld directory on the handheld device. It is controlled by reg key DefaultLogLevel, with values 0-4. For more information on values, see ["Siebel Handheld setup.ini Parameters" on page 103](#).

The default value of the reg key during installation is 2. This file logs all of the following:

- Database objects that were imported during synchronization.
- All SQL statements generated by the application. You must set a parameter in the setup.ini file to turn this log on. DefaultLogLevel=3 and 4 will log SQL statements to the device log. See ["Siebel Handheld setup.ini Parameters" on page 103](#) for more information about setting the parameter.
- All system error messages. You must set a parameter in the setup.ini file to turn this log on. DefaultLogLevel=4 will give the most detailed log with debug info. See ["Siebel Handheld setup.ini Parameters" on page 103](#) for more information about setting the parameter.
- All of the messages displayed on the Sync Manager dialog box as well as some basic information about synchronization, such as data source and connect string. You can set the logging level for this file using the DefaultLogLevel parameter in the setup.ini file.

## Logging Handheld Synchronization Errors

Siebel Handheld Sync logs all the strings that the user sees in the sync message window as well as many informational messages that do not get displayed in the UI. These informational messages are used to help track down where an error occurred. Siebel Handheld Sync determines which messages get logged based on a value stored in the registry under the key DefaultLogLevel. The values range from 0 to 4; 0 logs all error messages and strings that the user sees, and 4 logs all data that Siebel Handheld Sync sends and receives.

If Siebel Handheld Sync fails, check the siebel\_log.txt file immediately after the failure. If you need more detail, increase the logging level of DefaultLogLevel and run Siebel Handheld Sync again. For more information on changing DefaultLogLevel, see ["Siebel Handheld setup.ini Parameters" on page 103](#).

You can determine when and where an error occurs during handheld synchronization by referring to siebel\_log.txt and the Handheld Sync Object Manager log.

The device log, siebel\_log.txt, shows the last HTTP command that was sent to server, for example, ExecuteLogin, Init, ProcessTransactionEx, ExtractDB, and so on. The Handheld Sync Object Manager log receives the request and invokes the corresponding method.

For example, in the device log (siebel\_log.txt), the following indicates that the device is sending an "Init" request to server:

```
INFO0x6F46107E03/30/2005 16:58:27http ://PPP_PEER:2323/medicalce/
start.swe?SWEExtSource=siebelpda&SWEExtCmd=Init&PatchLevel=7.7.2.2PDA%5b18356_1]
8.471262E-309NU&SyncFormat=CE0&SyncNodeId=&TimeStamp=1112230707

INFO0x6F46107E03/30/2005 16:59:20<Init ReturnCode="OK" Complete="100">
```

The server log (Handheld Sync OM log, that is, CompNameObjMgr\_enu\_XXXXX.log), shows that the "Init" request is received by the server and the "Init" method is invoked:

```
ObjMgrBusServiceLogInvokeMethod402005-03-23 10:45:27Begin: Business Service
'Handheld Synchronization' invoke method: 'Init' at 10c2bc68

HandheldSyncLogDebug502005-03-23 10:45:27Request Init received
```

(Where "CompName" is the server component name of the handheld synchronization for the specific handheld application.)

In addition to the device log, customers should also check the CompSync log in laptop (for Companion Sync) or SalesCEObjMgr\_enu\_XXXXX.log in Siebel Server (for DSS). For more information on changing logging levels, see ["Configuring Direct Server Sync Logging Levels" on page 98](#) and ["Configuring Companion Sync Logging Levels" on page 99](#).

## SQLTrace

Use SQLTrace for diagnostic purposes if you encounter serious configuration errors or performance problems and cannot otherwise diagnose the problem. The problem may quickly become apparent in the log entries from SQL tracing.

### **To enable SQL tracing**

- 1 Log into srvrmgr prompt.
- 2 At the DOS prompt, run server manager (srvmgr) from the <siebsrvr/bin> directory:  
srvmgr /g gateway /e enterprise /u sadmin /p sadmin
- 3 Run: change evtloglvl ObjMgrSqlLog=4 for comp [OMName], where [OMName] = the OM name (for example, MedicalCEObjMgr\_enu).
- 4 Log entries are written as described in “Log Files” on page 192.

**CAUTION:** When SQL tracing is enabled, synchronization is severely and adversely affected. Therefore, it is recommended that you turn SQL tracing on for a limited time to diagnose a specific problem, then turn SQL tracing off.

## **End User Error Messages**

In addition to errors found in the siebel\_log.txt file, you might receive a Transaction Errors Reported message during synchronization. These errors are logged in TXNError.hh. The message appears on the handheld device in the Syncmanager Status box. You can double-click the message at any time to see the errors.

You can make the following settings in setup.ini:

TXNErrorLevel = 0 (no log information)

TXNErrorLevel = 1 (report txn errors in the client)

For more information on end-user messages, see “Synchronization Troubleshooting with the Siebel Handheld Client” on page 136.

## **Web Server Timeout Errors**

If synchronization times are long due to the size of the database file or the speed of the network connection, your end users may encounter Web server timeout errors and synchronization failures. First try to resolve this problem by reducing the size of your extract and configuring your server performance. You can reduce the size of the extract by fine-tuning filters, or if appropriate filters have already been defined, select ones that will return less data. If after doing this, your end users continue to experience timeout errors, then increase the timeout parameter on IIS for the default Web Server.

Follow the procedure for your platform to change the timeout parameter.

### **To change the timeout parameter on Windows**

- 1 From the Start menu, select Programs > Administrative Tools > Internet Services Manager.
- 2 From the Internet Information Services window, select the local machine, right-click on the Default Web Site, and select Properties from the pop-up list.
- 3 From the Web Site Properties window, select the Web Site tab.

- 4 Under the Connections heading, locate the Connection Timeout property and increase the number of seconds.
- 5 Click OK.

## Handheld Device Timeout Errors

The following three parameters are stored in device registry. They control the device timeout. For more information on device timeout errors, see the following parameters in "[Siebel Handheld setup.ini Parameters](#)" on page 103:

- InternetOptionReceiveTimeout = 600000
- InternetOptionSendTimeout = 600000
- InternetOptionDataExtractionTimeout = 600000

## Performance

This section discusses ways you can optimize your client performance, server performance, and network performance.

### Client Performance

Client performance is affected primarily by the device capability (minimum 206 MHz processor and 64 MB RAM), configuration, and the quantity of data loaded onto the device. In general, screen-to-screen and view-to-view navigation times of 3 to 4 seconds or less should be considered normal.

It is strongly recommended that customers follow these general guidelines to optimize the performance of their handheld applications:

- Keep configuration under 30 views.
- Keep RML file size under 1.75 MB.
- Keep database files (dbfile.txt) under 2 MB.  
Use filters as outlined in the Siebel 2000 Handheld Synchronization Technical Note.
- Keep the number of records for each business component under 2,500.
- Avoid installing other applications on the device at the same time.
- Users should synchronize their data frequently.

Additional configuration information can be found in the Siebel Technical Note 405.

The Siebel Handheld client will benefit from periodic closing and restarting the application to release memory consumed by the handheld operating system. Use File > Exit in the menu to exit from the Siebel Handheld application.

If an external VGA driver is or has been loaded on the device in the past and is no longer needed, be sure to unload it, because it is known to have significant performance impacts on handheld devices.

## Server Performance

Server performance affects the performance and scalability of Direct Server Sync processes. Customers should engage Expert Services to do a Scalability Review. The following guidelines are general in nature and pertain to the Siebel Handheld Sync components running on a Siebel Server:

- Use Performance Monitor to track memory and processor performance on the Siebel server.
- Make sure that the Servers (IIS, GW, OM and DB) are on the same high speed LAN segment.
- Siebel Handheld Sync components will stress Siebel Server and database performance because of the intensive interactions during large concurrent synchronizations.
- Estimate that 64 MB is used per Siebmtsh.exe instance.
- To calculate the theoretical maximum concurrent users:
  - $\text{Numusers} = \text{Server\_Memory} * \text{threads\_per\_process\_ratio} / 64 \text{ MB.}$
- Optimize the Threads per Process Ratio (Max Tasks/Max MT Servers) per Technical Note 405.
- Set Max Tasks=Max. number of concurrent users (for example, 150).
- Set MinMTServers=MaxMTServers (for example, 30 for 5:1 ratio, if this is determined to be appropriate).

To optimize and tune a Siebel DB server:

- Use Performance Monitor to track memory and processor performance on the DB server.
- Turn on SQL tracing and search for long-running SQL calls.
- Estimate 64 MB of RAM for each concurrent user.
- Consider creating indexes to tune the queries (only performed with the assistance of Siebel Expert Services).
- Consider using a RAID 0+1 disk array with an expanded number of spindles to optimize database performance.

**NOTE:** Make sure that DB Server settings are set to recommended values. Timeouts should be set at the Siebel Server. Be careful that the timeout is set longer than the longest SQL query.

## Network Performance

The condition of the network affects Direct Server Sync performance and scalability. In general, a low-latency, high-bandwidth network is preferred with dedicated rather than shared network connections. The following are general network considerations:

- Make sure there is adequate bandwidth throughout the entire round-trip of network packets and estimate where bottlenecks will occur due to high concurrent load. For example, if 50 users are concurrently synchronizing 1 MB each, 50 MB of data must pass through the network. If this data is passing through a single leased 56 KB per second line, then this data will minimally take  $500,000 \text{ KB} / 56 \text{ KB/sec} = 8928 \text{ seconds} = 148 \text{ minutes.}$  In reality, a 56 KB per second line will offer only 30-40 KB per second average throughput, which causes further bandwidth constraints. Check the total available bandwidth of network providers (private or public ISP).
- Verify that you have low latency lines with ping round trips of less than 1 second (1000 ms) with no dropped packets.

- Verify if roundtrips occur with less than 10 hops.
- Check the actual throughput of network connections by performing simple file transfers with no Siebel software.
- VPN software from third parties accounts for 30 to 60 percent of additional packet overhead because of the encryption.

Network problems can usually be resolved by working with network providers to size network connections and optimize network routing. Consider the use of burst networks, quality of service contracts, private networks, and dedicated modem banks directly into a high-speed LAN environment.

# B

## Business Components and Classes

Siebel Handheld Client supports a subset of the business components and classes supported by the Siebel Web Client application. This appendix lists the supported business components, business component classes, and applet classes.

- ["Supported Business Components for SiebelMedical Handheld" on page 199](#)
- ["Business Component Classes" on page 200](#)
- ["Applet Classes" on page 201](#)

### Supported Business Components for SiebelMedical Handheld

[Table 40](#) lists the supported business components for Siebel Medical Handheld.

Table 40. Siebel Medical Handheld Business Components

Supported Business Components
Account Contact Affiliation
Account Note
Account Private Note
Asset Mgmt - Asset
CUT Address
CUT Address Inter Table - CE
Contact Account Affiliation
Cycle Counting
FS Bucket
FS Cycle Counting Serial Parts
FS InvLoc Product
FS Inventory Location
FS Inventory Transaction
FS Transaction Assets
HH LS Medical CC Barcode Display

Table 40. Siebel Medical Handheld Business Components

Supported Business Components
HH LS Medical Virtual Bucket
LS Medical Cycle Counting Execution
LS Medical Signature
Pharma ME Event
Pharma ME Event Professional Invitee
Pharma Professional Note
Pharma Professional Private Note
Retail Outlet Best Call Time

## Business Component Classes

**NOTE:** The business component classes for the handheld application are based on the classes for the Web Client. However, in most instances, because of the limitations of the handheld, only the subset of the class functionality that is required for the handheld is supported.

Table 41 lists the supported business component classes for Siebel Medical Handheld.

**CAUTION:** It is not recommended that you configure your own business components. Instead, use only the following classes.

Table 41. Siebel Medical Business Component Classes

Supported Applet Classes
CSSBCMedCyclCnt
CSSBCLSBucket
CSSBCMedCyclCntSerialPart
CSSBCLSCYCIInvLoc
CSSBCLSIInvTxn
CSSBCLSIInvTxnAsset
CSSBCMedBarcodeDisplay
CSSBCMedCyclCntExecution



## Applet Classes

You may create additional screens and views for your Siebel Handheld application. Any new screens and views must be based on classes and business components that are supported for the Medical Handheld application. Refer to [Table 42](#) for the supported applet classes.

Table 42. Siebel Medical Handheld Applet Classes

Supported Applet Classes
CSSFrameListLSAsset
CSSFrameListLSInvLoc
CSSFrameListLSInvTxn
CSSFrameListLSProdDetail
CSSFrameListLSProdHrchy
CSSFrameListMedCCAsset
CSSFrameListMedCycCntDetail
CSSFrameListMedCyclCnt
CSSFrameListPMSign
CSSFrameLSInvLoc
CSSFrameLSPartMove
CSSFrameMedCycCntScan



# C

## User Properties

This appendix documents the handheld-specific user properties and methods for the Siebel Medical Handheld application.

### User Properties for Medical Handheld

Table 43 describes user properties for Medical Handheld.

Table 43. User Properties for Medical Handheld

Business Component	User Property	Default Value	Description
Cycle Counting	Generate Hierarchy On Count Complete	Y	After a completed cycle count is synchronized to the server, the Generate Hierarchy business service method will be invoked for the inventory location where the cycle count occurred.
FS Cycle Counting Serial Parts	Expired Product Message Box	Y	The value Y says that a message box is popped up during the cycle count process.
FS Inventory Location	User Properties for header and footer	N	If set to Y, will allow you to customize Signature Header and Footer in the Signature Capture Popup box. After setting this User Property to Y, you can then edit the values of SignatureFooterField and SignatureHeaderField user property of the control Sign button in the Applet HH LS Medical Part Move Approval List Applet.
Internal Product	Lot Tracking Product Types	,Sample, Equipment, Device,	Comma delineated list of the Language Independent Codes (LIC) of the types of products that can be tracked by lots. There must be leading and trailing commas in the value field.

Table 43. User Properties for Medical Handheld

Business Component	User Property	Default Value	Description
FS Inventory Location	Synchronize Rollup Data	N	When the value is Y, handheld transactions are logged when the user clicks Rollup in the Inventory Detail view. Note that these transactions update the bucket records directly and no inventory transactions are generated.
Any	Additional Barcode Fields		Allows you to display additional fields in Product Detail applet. For example, if you want to configure the Asset Number field in the Asset Management business component as a barcode field, you would add the user property to the Asset Management business component, then add the required data in the Barcode Administration screen. For more information, see <a href="#">"Administering Barcode Settings for Siebel Medical Handheld"</a> on page 60.

# D

## Print Tagging Language

This chapter describes the print tagging language that is used to create print templates for your handheld device.

The audience for this appendix is Siebel application developers.

[“Overview of Siebel Handheld Print Tagging Language” on page 205](#)

[“Using Variables in Print Templates” on page 221](#)

### Overview of Siebel Handheld Print Tagging Language

You can create the print template file in any text editor.

- Tags are enclosed in angle brackets and identified with the keyword TAG, followed by a colon.  
For example: <TAG: ....>
- Parameters are specified with a keyword, followed by an equals sign. Arguments are in uppercase, surrounded by quotation marks.  
For example, Font = "FONT FACE"
- Values are in uppercase and lowercase, surrounded by quotation marks.  
For example: Font = "Helvetica"
- Tags may appear in any order in the file. The only required tag is the Title tag.
- Variables within a print template must be uniquely named. Variable names must be one-word strings and spaces are not allowed.

The following tags are used to specify the format of the print output, which applets are included, and the query that is executed:

- Applet—Specifies which applets are used in the document.
- Comment—Adds comments that do not appear in the final document.
- Divider—Adds visual lines to visually separate different parts of the document.
- Footer—Adds information such as page numbers, date, and time.
- Format—Specifies characteristics such as font, boldface, italics, and underline.
- Header—Adds information such as page numbers, date, and time.
- Page Break—Specifies a break in the text, forcing the text that follows to appear on the next page.
- Picture—Adds graphic images to the document.

- Title—Specifies a name for the template that appears in the print job list.

In addition, you may add static text in the print template.

The following print tags allow you to calculate additional information and add it to your reports:

- GetTotal—Calculates the total for a column of data.
- GetField—Gets the value of a field.
- GetCount—Calculates the number of records.

You can also calculate dates and times using the GetDate and GetTime tags, and you can retrieve the value of the registry using GetRegistry.

All of this information is stored in variables that you specify. In addition, you can assign any value to a variable using the SetVariable tag. You can present this information in your report using the Cell and EndofLine tags to create tables of information. See [“Using Variables in Print Templates” on page 221](#) for an example of how variables can be used to present information in print templates.

## Applet

### Description

Specifies the applet to be printed.

### Usage

Any data that appears in your document must be generated from the applets in the view. Therefore, you must create applets that will produce the data required for your document.

Use the Applet tag to specify any number of list or form applets within the template and to locate the applet in your document. In the form view, a maximum of two fields per row are supported.

### Syntax

```
<TAG:Applet Name="APPLET NAME" Query="QUERY STRING" Caption="CAPTION"  
Headerdivider="HEADERDIVIDER" Recorddivider="RECORDDIVIDER" Wrap="WRAP">
```

Parameter	Description
TAG:Applet	(Required) Applet tag indicator.
APPLET NAME	(Required) Applet name as defined in Siebel Tools.
QUERY STRING	(Optional) Specifies the query string directly set to the business component supporting the document.  If the query string is not specified, the currently active query string in the view is applied to expose the relevant records.

Parameter	Description
CAPTION	(Optional) Specifies whether the captions in the form applets are suppressed. Valid values are TRUE (default) and FALSE. This parameter does not apply to list applets. Column headings in list applets are always enabled.
HEADERDIVIDER	(Optional) Specifies whether a divider is printed below the column heading in list applets. Valid values are TRUE and FALSE (default). This parameter does not apply to form applets.
RECORDDIVIDER	(Optional) Specifies whether a horizontal divider is printed between records in list applets. Valid values are TRUE and FALSE (default). This parameter does not apply to form applets.
WRAP	(Optional) Specifies whether text field values are word wrapped. Valid values are TRUE and FALSE (default). This parameter does not apply to numeric fields.

**Example**

<TAG:Applet Name="Order List" Headerdivider="TRUE">

## Cell

**Description**

Prints the string stored in STRING or VARIABLE NAME at the specified location on the current line.

**Usage**

Use the Cell tag to create cells of data in a row in a table. Use it with the EndOfLine tag. If the data exceeds the width of the cell specified by Startat and Endat, it wraps to the next line.

**Syntax**

<TAG:Cell Startat="START" Endat="END" Name="STRING" Variable="VARIABLE NAME" Align=ALIGNMENT">

Parameter	Description
TAG:Cell	(Required) Required tag indicator.
START	(Required) Specifies the starting point of the cell, expressed as a percentage of the printable page width. For example, if START =10, then the cell starts at the point that is 10% from the left edge of the printable width.
END	(Required) Specifies the end point of the cell, expressed as a percentage of the printable page width. For example, if END=50, then the cell ends at the point that is 50% from the left edge of the printable width.
STRING	(Optional) String value. If Variable is not specified, then String is a required parameter.
VARIABLE NAME	(Optional) Name of variable where the value is stored. If String is not specified, then Variable is a required parameter.
ALIGNMENT	(Optional) Specifies the alignment of the string.  Valid values are LEFT (default), CENTER, and RIGHT.

**Example**

```
<TAG:Divider Weight="3" Startat="20" Endat="80">
<TAG:Cell Startat="0" Endat="50" name="TOTAL:" Align="RIGHT">
<TAG:Cell Startat="50" Endat="100" Variable="vvv1total" Align="RIGHT">
<TAG:EndOfLine>
<TAG:Cell Startat="0" Endat="50" name="TOTAL Defective:" Align="RIGHT">
<TAG:Cell Startat="50" Endat="100" Variable="vvvDefectiveTotal" Align="RIGHT">
<TAG:EndOfLine>
<TAG:Cell Startat="0" Endat="50" name="TOTAL Good:" Align="RIGHT">
<TAG:Cell Startat="50" Endat="100" Variable="vvvGoodTotal" Align="RIGHT">
<TAG:EndOfLine>
<TAG:Cell Startat="0" Endat="50" name="Defective Count:" Align="RIGHT">
<TAG:Cell Startat="50" Endat="100" Variable="vvvDefectiveCount" Align="RIGHT">
<TAG:EndOfLine>
<TAG:Cell Startat="0" Endat="50" name="Good Count:" Align="RIGHT">
```



```
<TAG:Cell Startat="50" Endat="100" Variable="vvvGoodCount" Align="RIGHT">
<TAG:EndOfLine>
<TAG:Cell Startat="50" Endat="100" Variable="vvv3reg">
<TAG:EndOfLine>
<TAG:Cell Startat="50" Endat="100" Variable="vvv5str">
<TAG:EndOfLine>
<TAG:Cell Startat="0" Endat="30" Variable="vvv4date">
<TAG:Cell Startat="30" Endat="70" Variable="vvv4longdate">
<TAG:Cell Startat="70" Endat="100" Variable="vvv8time">
<TAG:EndOfLine>
```

## Comment

### Description

Adds code comments to the print template.

### Usage

Use to add explanatory notes or documentation to explain and maintain the print template. Comment tags are ignored during printing and do not appear in the printed document.

### Syntax

```
<REM: COMMENT>
```

Parameter	Description
REM	(Required) Comment tag indicator.
COMMENT	(Optional) Comment text.

### Example

```
<REM: Quotation Print Template. This template includes four applets.>
```

## Divider

### Description

Renders a horizontal line across the width of the page.

### Usage

Use to visually separate the different sections of your document. The Divider tag can be used between other tags; therefore, you may add a line between two applets. However, you cannot embed a Divider within an applet.

### Syntax

```
<TAG:Divider Weight="WEIGHT" Startat="START" Endat="END">\
```

Parameter	Description
TAG:Divider	(Required) Divider tag indicator.
WEIGHT	(Optional) Specifies line thickness.  Valid values are 1–5. The default value is 1, which produces a line 0.2 mm wide. Increasing the value by 1 increases the width by 0.2 mm. A 5 produces a line that is 1 mm wide.
START	(Optional) Percentage that specifies the starting point of the line. The default is 0%, the farthest left point.
END	(Optional) Percentage that specifies the end point of the line. The default is 100%, the farthest right point.

### Example

```
<TAG:Divider Weight="2" Startat="20" Endat="80">
```

## EndOfLine

### Description

Specifies the end of a row and advances to the next line.

### Usage

Use to create rows of data in a table. Used with the Cell tag.

### Syntax

```
<TAG:EndOfLine>
```

### Example

```
<TAG:Cell Startat="0" Endat="50" Name="TOTAL:" Align="RIGHT">  
<TAG:Cell Startat="50" Endat="100" Variable="vvv1total" Align="RIGHT">  
<TAG:EndOfLine>
```

## Footer

### Description

Adds footer information such as page numbers, the current date, and the current time.

### Usage

You may, for example, always want the text "Thank you for your business!" to appear on the bottom of your receipts. If so, you may include this text in a Footer tag.

The Footer tag may be specified anywhere in the template file; however, it will always appear at the very bottom of your document. Only one Footer tag is applied to the document. If you have multiple Footer tags in the file, only the last Footer tag is used; any other Footer tags are ignored.

If you include a Footer tag in your template, then you must set the BottomMargin in setup.ini to a minimum of 20.

The footer has three sections, Left, Center, and Right, which are used to position the information in the footer.

The text in the footer is formatted in 10 point, Helvetica font. If Helvetica is not available on your system, the default font is used. You cannot customize text formatting of the Footer tag. The Format tag does not affect the formatting of the footer.

### Syntax

```
<TAG:Footer Left="DATA" Center="DATA" Right="DATA">
```

Parameter	Description								
TAG:Footer	(Required) Footer tag indicator.								
DATA	(Optional) Static text or one of the following data tags:								
	<table border="1"> <thead> <tr> <th>Data tag</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>&lt;page&gt;</td> <td>Page number</td> </tr> <tr> <td>&lt;date&gt;</td> <td>Date of the printing</td> </tr> <tr> <td>&lt;time&gt;</td> <td>Time of the printing</td> </tr> </tbody> </table>	Data tag	Description	<page>	Page number	<date>	Date of the printing	<time>	Time of the printing
Data tag	Description								
<page>	Page number								
<date>	Date of the printing								
<time>	Time of the printing								

### Example

```
<TAG:Footer Left="<date>" Right="<page>"
```

## Format

### Description

Specifies the characteristics of the text—the typeface or font, whether the text is in boldface, italics, or underlined, and the text alignment.

### Usage

The font specification specifies the characteristics of all text that follows the tag until the next Format tag.

The text alignment tag (Align) behaves somewhat differently. When the applet is rendered, the field alignment specification takes precedence over the Align parameter.

### Syntax

```
<TAG:Format Face="FONT FACE" Size="FONT SIZE" Bold="BOLD" Italic="ITALIC"
Underline="UNDERLINE" Align="TEXT ALIGNMENT">
```

Parameter	Description
TAG:Format	(Required) Format tag indicator.
FONT FACE	(Required) Specifies the typeface of the text. Any typeface installed on the handheld device may be specified. There is no default for this parameter.
FONT SIZE	(Required) Specifies the text size. Any installed font size for an installed typeface on the handheld device may be specified. There is no default for this parameter.
BOLD	(Optional) Specifies whether the text is in bold. Valid values are TRUE or FALSE (default). If TRUE, text is set to bold.
ITALIC	(Optional) Specifies whether the text is in italic. Valid values are TRUE or FALSE (default). If TRUE, text is set to italic.
UNDERLINE	(Optional) Specifies whether the text is underlined. Valid values are TRUE or FALSE (default). If TRUE, text is set to underline.
TEXT ALIGNMENT	(Optional) Specifies the text alignment. Valid values are LEFT (default), RIGHT, and CENTER.

### Example

```
<TAG:Format Face="Helvetica" Size="10">
```

## GetCount

### Description

Calculates the number of records in the selected rows and assigns this value to a variable.

### Usage

Use GetCount to calculate the number of records and print this value in your report.

### Syntax

```
<TAG:GetCount Appletname="APPLET NAME" Query="QUERY STRING" Variable="VARIABLE NAME">
```

Parameter	Description
TAG:GetCount	(Required) Required tag indicator.
APPLET NAME	(Required) Name of the applet.
QUERY STRING	(Optional) Search specification for the rows to be included in the row set. If not specified, the current search specification is used.  The syntax for the query string is: Field Name Query Statement. You may specify one or more query strings separated by a vertical bar ( ).  For example, Query="Name LIKE 'Sieb*'" Location LIKE 'H*'"
VARIABLE NAME	(Required) Name of variable where the value is stored.

### Example

```
<TAG:GetCount Appletname="CS HH Product Bucket List Applet" Query="Status|Good" Variable="StatusGood">
```

## GetDate

### Description

Gets the current date, offsets the date by the number of days specified in Dayoffset, and stores the result in a variable.

### Usage

Use GetDate to print a specific date in your report.

**Syntax**

<TAG:GetDate Dayoffset="NUMBER OF DAYS" Variable="VARIABLE NAME" Logformat="DATE FORMAT">

Parameter	Description
TAG:GetDate	(Required) Required tag indicator.
NUMBER OF DAYS	(Optional) Number of days by which the current date is offset. For example, -100 subtracts 100 days from the current date; 100 adds 100 days to the current date. The default is 0.
VARIABLE NAME	(Required) Name of variable where the value is stored.
DATE FORMAT	(Optional) TRUE prints the date in long date format (for example, Monday, February 11, 2002). FALSE prints the short date format (for example, 2/21/02). The default is FALSE.

**Example**

<TAG:GetDate Longformat="TRUE" Variable="LongDate">

## GetField

**Description**

Gets the value of the specified column of the first row of selected rows and assigns the result to a variable.

**Usage**

Use GetField to print a value without developing a print applet. Design the query and sort strings so that the desired record is the first record in the selected rows. GetField only allows you to get the value in the first record.

**Syntax**

<TAG:GetField AppletName="APPLET NAME" Fieldname="FIELD NAME" Query="QUERY STRING" Sort="SORT STRING" Variable="VARIABLE NAME">

Parameter	Description
TAG:GetField	(Required) Required tag indicator.
APPLET NAME	(Required) Name of the applet.
FIELD NAME	(Required) Name of the field or column.
QUERY STRING	(Optional) Search specification for the rows to be included in the total. If not specified, the current search specification is used.

Parameter	Description
SORT STRING	(Optional) Sort specification. If not specified, the current sort specification is used.  The syntax is: Field Name [ASC][DESC]. The default is ASC (Ascending).  For example: Sort="Account DESC, Date". In the example, the Account field is sorted in descending order, then the date field is sorted in ascending order.
VARIABLE NAME	(Required) Name of variable where the value is stored.

**Example**

```
<TAG:GetField AppletName="CS HH Product Bucket List Applet" Fieldname="Quantity" Variable="ProdBucketListField">
```

## GetRegistry

**Description**

Gets a value in the registry for Siebel Handheld and assigns it to a variable.

**Usage**

Use GetRegistry to print the contents of the registry key in your report.

**Syntax**

```
<TAG:GetRegistry Name="REGISTRY NAME" Variable="VARIABLE NAME">
```

Parameter	Description
TAG:GetRegistry	(Required) Required tag indicator.
REGISTRY NAME	(Required) Value the registry.
VARIABLE NAME	(Required) Name of variable where the value is stored.

**Example**

```
<TAG:GetRegistry Name="InstallDir" Variable="Registry">
```

## GetTime

### Description

Gets the current time, offsets the time by the number of seconds specified in Secondoffset, and assigns the result to a variable.

### Usage

Use GetTime to print a specific time in your report.

### Syntax

```
<TAG:GetTime Secondoffset="NUMBER OF SECONDS" Variable="VARIABLE NAME">
```

Parameter	Description
TAG:GetTime	(Required) Required tag indicator.
NUMBER OF SECONDS	(Optional)Number of seconds by which the current time is offset. For example, -100 subtracts 100 seconds from the current time; 100 adds 100 seconds to the current time. The default is 0.
VARIABLE NAME	(Required) Name of variable where the value is stored.

### Example

```
<TAG:GetTime Secondoffset="3600" Variable="Time">
```

## GetTotal

### Description

Calculates the total for the specified column for all selected rows and assigns the value to a variable.

### Usage

Use GetTotal to calculate a column total and display the total in your report.

### Syntax

```
<TAG:GetTotal AppletName="APPLET NAME" FieldName="FIELD NAME" Query="QUERY STRING" Variable="VARIABLE NAME">
```

Parameter	Description
TAG:GetTotal	(Required) Required tag indicator.
APPLET NAME	(Required) Name of the applet.



Parameter	Description
FIELD NAME	(Required) Name of the field or column. Specify a field or column with numeric data. If you specify a field with non-numeric data, a 0 is assigned to the variable.
QUERY STRING	(Optional) Search specification for the rows to be included in the total. If not specified, the current search specification is used.  The syntax for the query string is: Field Name Query Statement. You may specify one or more query strings separated by a vertical bar ( ).  For example, Query="Name LIKE 'Sieb*'" Location LIKE 'H*'"
VARIABLE NAME	(Required) Name of variable where the value is stored.

**Example**

```
<TAG:GetTotal AppletName= "CS HH Product Bucket List Applet" Fieldname="Quantity" Variable="ProdBucketListTotal">
```

## Header

**Description**

Adds header information such as page numbers, the current date, and the current time.

**Usage**

You may always want the current date and time to appear on your invoices. If so, you may include this information in a Header tag.

The Header tag may be specified anywhere in the template file; however, it always appears at the very top of your document. Only one Header tag is applied to the document. If you have multiple Header tags in the file, only the last Header tag is used; any other Header tags are ignored.

If you include a Header tag in your template, then you must set TopMargin in setup.ini to a minimum of 20.

The header has three sections, Left, Center, and Right, which are used to position the information in the header. The Left parameter aligns the text with the left margin, and the Right parameter right aligns the text with the right margin. The Center parameter centers the text in the header.

The text in the header is formatted in 10 point, Helvetica font. If Helvetica is not available on your system, the default font is used. You cannot customize text formatting of the Header tag. The Format tag does not affect the format of the header.

### Syntax

<TAG:Header Left="DATA" Center="DATA" Right="DATA">

Parameter	Description								
TAG:Header	(Required) Header tag indicator.								
DATA	(Optional) Static text or one of the following data tags:								
	<table border="1"><thead><tr><th>Data tag</th><th>Description</th></tr></thead><tbody><tr><td>&lt;page&gt;</td><td>Page number</td></tr><tr><td>&lt;date&gt;</td><td>Date of the printing</td></tr><tr><td>&lt;time&gt;</td><td>Time of the printing</td></tr></tbody></table>	Data tag	Description	<page>	Page number	<date>	Date of the printing	<time>	Time of the printing
Data tag	Description								
<page>	Page number								
<date>	Date of the printing								
<time>	Time of the printing								

### Example

<TAG:Header Center="Company Confidential">

## Page Break

### Description

Forces text that follows the tag to appear on the next page.

### Usage

Use this for multipage documents or forms.

### Syntax

<TAG:PageBreak>

Parameter	Description
TAG:PageBreak	(Required) Page break tag indicator.

### Example

<TAG:PageBreak>

## Picture

### Description

Specifies graphic files included in the print template.

**Usage**

Use to add graphic images, such as a company logo, to your documents.

The supported file formats are BMP and JPG.

Graphics files are located in the \Program Files\Siebel Handheld\templates directory on the handheld device. Specify the full path name of the file for the Name parameter.

Scaling or graphics operations, such as inverse image, are not supported.

The Alignment and Position parameters are used together to place the graphic. Alignment specifies the left edge, the center, or the right edge of the graphic. Position is distance, specified in millimeters, from the left edge of the paper.

- If Alignment = "Left" and Position="30", then the left edge of the graphic is set 30 millimeters from the left edge of the paper.
- If Alignment = "Center" and Position = "30", the center of the graphic is set 30 millimeters from the left edge of the paper.
- If Alignment = "Right" and Position = "30", the right edge of the graphic is set 30 millimeters from the left edge of the paper.

If Position is not specified, it defaults to 0. Depending on the Alignment setting, the graphic is left-aligned (Alignment = "Left"), the graphic is right-aligned (Alignment = "Right"), or the graphic is centered (Alignment = "Center")

**Syntax**

<TAG:Picture Name="FILE NAME" Alignment="ALIGNMENT" Position="POSITION">

Parameter	Description
TAG:Picture	(Required) Picture tag indicator.
FILE NAME	(Required) Specifies the full path and name of the graphics file.
ALIGNMENT	(Optional) Specifies the left edge, the center, or the right edge of the graphic. Used with the Position parameter to specify the horizontal position of the graphic.  Valid values are LEFT (default), CENTER, and RIGHT.
POSITION	(Optional) Specified in millimeters, it is the distance from the left edge of the paper. Used with the Alignment parameter to specify the horizontal position of the graphic. The default is 0.

**Example**

<TAG:Picture Name="\Program Files\Siebel Handheld\templates\logo.bmp" Alignment="Right" Position="88">

## SetVariable

### Description

Sets a value to a variable.

### Usage

Use SetVariable to assign a value to a variable. You can then print the value by specifying the variable in the Cell tag.

### Syntax

```
<TAG:SetVariable Name="VALUE" Variable="VARIABLE NAME">
```

Parameter	Description
TAG:SetVariable	(Required) Required tag indicator.
VALUE	(Required) A value.
VARIABLE NAME	(Required) Name of variable where the value is stored.

### Example

```
<TAG:SetVariable="100" Variable="TotalQuantity">
```

## Static Text

You may add static text anywhere in your template by using the current Format settings. The text goes across the entire page width. If it exceeds the width of the page, it wraps to the next line.

### Example

This quote is valid for 60 days from the date on this quotation.

## Title

### Description

Name used to identify the template.

### Usage

The Title tag is a required tag in your print template file.

When you print your document, this title appears in the print job list. This title does not appear on the document that is printed. Use static text to add the document title to your template.

**Syntax**

<TAG:Title Title="TITLE">

Parameter	Description
TAG:Title	(Required) Title tag indicator.
TITLE	(Required) Title text. May be between 1–255 characters.

**Example**

<TAG:Title Title="Quotation">

## Using Variables in Print Templates

The following example shows how to use variables in a print template.

```
<TAG:Title Title="Inventory Report">
<REM: *****Variable Assignment Examples*****>
<TAG:SetVariable name="THIS IS VARIABLE" variable="VarStr">
<TAG:GetRegistry name="InstallDir" variable="VarReg">
<TAG:GetDate dayoffset="10" variable="VarDate">
<TAG:GetDate longformat="TRUE" variable="VarLongDate">
<TAG:GetTime secondoffset="-3600" variable="VarTime">
<TAG:GetTotal appletname="CS HH Product Bucket List Applet" fieldname="Quantity"
variable="VarTotal">
<TAG:GetTotal appletname="CS HH Product Bucket List Applet" fieldname="Quantity"
query="Status|Good" variable="VarGoodTotal">
<TAG:GetTotal appletname="CS HH Product Bucket List Applet" fieldname="Quantity"
query="Status|Defective" variable="VarDefectiveTotal">
<TAG:GetField appletname="CS HH Product Bucket List Applet" fieldname="Quantity"
variable="VarQuantityField">
<TAG:GetCount appletname="CS HH Product Bucket List Applet" query="Status|Good"
variable="VarGoodCount">
<TAG:GetCount appletname="CS HH Product Bucket List Applet" query="Status|Defective"
variable="VarDefectiveCount">
<REM: *****Variable Assignment Examples End*****>
<REM: Inventory Print Template. This template includes 3 applets. The ENU template>
<TAG:Format Face="Helvetica" Size="16" Align="Center">
[Distributor Name
Street Address
City, Country Postal Code
Phone Number Fax Number]
```

```
<TAG:Format Face="Helvetica" Size="20" Bold="TRUE" Align="Center">
Inventory Report
<TAG:Format Face="Helvetica" Size="8" >
<TAG:Applet Name="CS HH Inv Loc Print Applet" Caption="TRUE" Wrap="TRUE">
<TAG:Applet Name="CS HH Product Bucket List Applet" Line="FALSE" Headerdivider="TRUE"
Recorddivider="FALSE" Wrap="TRUE">

<REM: *****Variable Usage Example*****>

<TAG:Divider weight="3" startat="20" endat="80">
<TAG:Cell startat="0" endat="50" name="TOTAL:" Align="RIGHT">
<TAG:Cell startat="50" endat="100" variable="VarTotal" Align="RIGHT">
<TAG:EndOfLine>
<TAG:Cell startat="0" endat="50" name="TOTAL Defective:" Align="RIGHT">
<TAG:Cell startat="50" endat="100" variable="VarDefectiveTotal" Align="RIGHT">
<TAG:EndOfLine>

<TAG:Cell startat="0" endat="50" name="TOTAL Good:" Align="RIGHT">
<TAG:Cell startat="50" endat="100" variable="VarGoodTotal" Align="RIGHT"
<TAG:EndOfLine>

<TAG:Cell startat="0" endat="50" name="Defective Count:" Align="RIGHT">
<TAG:Cell startat="50" endat="100" variable="VarDefectiveCount" Align="RIGHT">
<TAG:EndOfLine>

<TAG:Cell startat="0" endat="50" name="Good Count:" Align="RIGHT">
<TAG:Cell startat="50" endat="100" variable="VarGoodCount" Align="RIGHT">
<TAG:EndOfLine>

<TAG:Cell startat="50" endat="100" variable="VarReg">
<TAG:EndOfLine>

<TAG:Cell startat="50" endat="100" variable="VarStr">
<TAG:EndOfLine>

<TAG:Cell startat="0" endat="30" variable="VarDate">
<TAG:Cell startat="30" endat="70" variable="VarLongDate">
<TAG:Cell startat="70" endat="100" variable="VarTime">
<TAG:EndOfLine>

<REM: *****variable Usage Example End*****>

<TAG:Divider weight="2">
<TAG:Format Face="Helvetica" Size="12" Align="LEFT">
Warehouse Signature
<TAG:Divider weight="2">
<TAG:Format Face="Helvetica" Size="12" Align="RIGHT">

Rep Signature
```

# E

## Print Configuration Settings

This appendix includes the following topic:

[“Overview of Siebel Handheld Print Configuration Settings” on page 223](#)

### Overview of Siebel Handheld Print Configuration Settings

The administrator sets up the default printer setting in the setup.ini file located in the setup directory.

There are a number of parameters to specify printing on the handheld. The parameters specify the following:

- Printer attributes (printer model, port, baud rate, and printer handshake).
- Printing attributes (portrait or landscape orientation, print density and quality, use of compression techniques, and advancing continuous-feed paper).
- Dimensions of the paper (U.S. or European standard paper sizes or custom-size paper).
- Margin settings of the pages (left, right, top, and bottom margins).

These parameters are specified in the [Printing] section of the setup.ini file located in the setup directory. The file contains default settings for all the printing parameters. Review the settings in the file to verify that these settings will work for your printing environment. If necessary, edit the settings as required. You may use any text editor to edit the file.

See [Appendix D, “Print Tagging Language,”](#) for a list of the printing parameters and valid values.

The parameters are set using the following syntax:

```
PARAMETER_NAME = VALUE
```

For example: `PrinterType = 1`

The parameters are listed below in alphabetical order by the parameter name.

#### MarginBottom

Use the MarginBottom parameter to specify the dimensions of the bottom margin of your page. Specify the margin in millimeters using a whole number; decimal fractions are not valid. The default is 5 millimeters.

The data specified in the Footer tag of the print template is printed in the margin specified by MarginBottom. Therefore, if the print template includes a Footer tag, you must specify a wide enough bottom margin to accommodate the footer. MarginBottom should be set to a minimum of 20 millimeters. For more information, see [“Footer” on page 211.](#)

## MarginLeft

Use the MarginLeft parameter to specify the width of the left margin of your page. Specify the margin in millimeters using a whole number; decimal fractions are not valid. The default is 5 millimeters.

## MarginRight

Use the MarginRight parameter to specify the width of the right margin of your page. Specify the margin in millimeters using a whole number; decimal fractions are not valid. The default is 5 millimeters.

## MarginTop

Use the MarginTop parameter to specify the dimensions of the top margin of your page. Specify the margin in millimeters using a whole number; decimal fractions are not valid. The default is 5 millimeters.

The data specified in the Header tag of the print template is printed in the margin specified by MarginTop. Therefore, if the print template includes a Header tag, you must specify a wide enough top margin to accommodate the footer. MarginTop should be set to a minimum of 20 millimeters. For more information, see [“Header” on page 217](#).

## PaperHeight

If the paper that your printer uses is not one of the supported standard sizes, then set PaperSize to 5 (custom paper dimensions). Then, specify the height of the paper, in millimeters, using the PaperHeight parameter. You must use a whole number; decimal fractions are not valid. The default is 280 millimeters. If you specify a value of 1–4 for PaperSize, the PaperHeight parameter is ignored.

Use the PaperWidth parameter to specify the width of the paper.

## PaperSize

Specify one of the standard paper sizes or specify a custom paper size. (See [Table 44](#).) If you specify custom paper size (5), you must also specify the PaperWidth and PaperHeight parameters. The default is custom paper dimensions.



See also PaperWidth and PaperHeight.

Table 44. Paper Dimensions

Value	Description
1	Letter size (8.5" x 11.5")
2	A4 (210 mm x 297 mm)
3	B5 (176 mm x 250 mm)
4	Legal size (8.5" x 14")
5 (default)	Custom paper dimensions (Specify PaperWidth and PaperHeight parameters.)

## PaperWidth

If the paper that your printer is printing to is not one of the supported standard sizes, then set PaperSize to 5 (custom paper dimensions). Then, you must specify the width measurement of the paper, in millimeters, using the PaperWidth parameter. You must use a whole number; decimal fractions are not valid. The default is 5 millimeters. If you specify a value of 1–4 for PaperSize, the PaperWidth parameter is ignored.

Use the PaperHeight parameter to specify the length of the paper.

## PrinterBaudrate

Use PrinterBaudrate to specify the speed of the data transmission for the printer. (See [Table 45.](#))

Table 45. Printer Baud Rate

Value	Description
0	Always use 0 for LPT or Network printer ports or for COM ports that communicate with the printer at 4800 baud
1 (default)	9600 baud
2	19200 baud
3	38400 baud
4	57600 baud
5	115200 baud

## PrinterCompressed

Use PrinterCompressed to specify the data compression mode. (See [Table 46.](#)) For the printers supported in this release, always set PrinterCompressed to 1.

Table 46. Data Compression

Value	Description
0	No compression techniques used
1 (default)	Use any known compression

## PrinterDensity

Use the PrinterDensity parameter to get a lighter or darker output from the printer. Start with the default setting, 2, which corresponds to the printer manufacturer’s default. As you get feedback from the field, you may need to adjust this setting.

The valid values are 0–4 where 0 is the lightest print density, 4 is the heaviest print density, and 2 is average print density.

## PrinterDither

Use to specify the method by which different colors are represented. (See [Table 47.](#)) For the printers supported in this release, PrinterDither should always be set to 0.

Table 47. Print Dithering

Value	Description
0 (default)	Use color diffusion
1	Use dithering

## PrinterDraftMode

Use PrinterDraftMode to specify the quality of the printing. (See [Table 48.](#)) For the printers supported in this release, PrinterDraftMode should always be set to 0.

Table 48. Print Quality

Value	Description
0 (default)	Use the highest quality printing
1	Use a lower quality printing if available

## PrinterFormFeed

Use PrinterFormFeed to specify how paper advances to the next page. (See [Table 49.](#)) If using sheets of paper, set PrinterFormFeed to 0.

Specify 1 or 2 for continuous-feed paper:

- Set PrinterFormFeed to 1 if you do not need to conserve paper or if you want pages of uniform length. The printer scrolls to the length specified by the PageHeight parameter and trims the page there.
- Set PrinterFormFeed to 2 to conserve paper or if it does not matter if your pages are of varying length. In this case, the printer scrolls 25 millimeters beyond the last printed line and trims the page there. The scroll distance, 25 mm, is not customizable.

For both values, 1 and 2, the page length never exceeds PageHeight.

Table 49. Printer Form Feed

Value	Description
0 (default)	Printer sends a form feed command to the printer at the end of each page. Use this setting for sheet paper.
1	Printer scrolls the page to the length specified by the PaperHeight parameter.
2	Printer scrolls the page 25 millimeters past the last printed line of the page.

## PrinterHandshake

Use PrinterHandshake to define the serial port handshake. (See [Table 50.](#)) The PrinterHandshake parameter applies only when the printer port is a Com1 or Com2 port. If PrinterPort is set to Com1 or Com2, then set PrinterHandshake to 1.

Table 50. Printer Handshake

Value	Description
0	Uses Xon/Xoff
1 (default)	Uses hardware control lines
2	No handshaking of serial port

## PrinterOrientation

Specify whether the paper is to be oriented vertically (portrait) or horizontally (landscape). (See [Table 51.](#)) Not all printers can print in landscape orientation. Therefore, you will need to check the specifications for your printer.

Table 51. Paper Orientation

Value	Description
1 (default)	Portrait (vertical)
2	Landscape (horizontal)

## PrinterPort

Specify the port to which the printer is connected with the PrinterPort parameter. (See [Table 52.](#))

If PrinterPort is an LPT port or a network path (2 or 9), then the PrinterBaudrate must be set to 0.

**NOTE:** The communication port on the printer must be set to be compatible with the host PDA. For IrDA, the serial communication setting must be set correctly to allow reliable printing. You should contact your printer manufacturer and Field Software for more information.

Table 52. Printer Port

Value	Description
0	Com1: serial port
1	Com2: serial port
2	LPT: parallel port
3 (default)	IR Infrared port
4	Com3: serial port
5	Com4: serial port
6	Com5: serial port
7	Com6: serial port
8	Print to file OUTPUT.PRN
9	Print to network address
10	Bluetooth BlueCard solution by Wireless Solutions
11	Socket PNC Bluetooth card support
12	Bluetooth BlueCard solution by Anycom

Table 52. Printer Port

Value	Description
13	Com7: serial port
14	Com8: serial port

## PrinterType

Specify the type of printer using the PrinterType parameter. See [Table 53](#) for a list of printers supported by the Printer CE print driver used by the Siebel application.

Table 53. Supported Printers

Value	Description
0	Canon BubbleJet compatible printers
1	Citizen PD-04
2	Citizen PN60i
3	Epson ESC/P 2 compatible printers
4	Epson Stylus compatible printers
5	HP PCL compatible - includes DeskJet and LaserJet
6	Pentax PocketJet 200
7	Pentax PocketJet II
8	Seiko DPU-3445
9	Generic Epson compatible 180DPI 24-pin printers (LQ/ESC)
10	Generic Epson compatible 360DPI 24-pin printers (LQ/ESC)
11	Generic Epson compatible 203DPI 24-pin printers (LQ/ESC)
12	Extech 2"
13	Extech 3"
14	O'Neil MicroFlash
15	DymoCoStar label printers
16	Seiko LabelWriter printers
17	Extech 4"

Table 53. Supported Printers

Value	Description
18	SiPix A6 printer
102	Generic 40 column Dot Matrix Printer
108	Generic 80 column Dot Matrix Printer

## Default Printing Settings

The following are the printing parameters from the setup.ini file. The values shown are the default settings.

[Printing]

```

PrinterType= 14
PrinterPort= 3
PrinterBaudrate= 1
PrinterHandshake= 1
PrinterOrientation= 1
PrinterDensity= 2
PrinterCompressed= 1
PrinterDither= 0
PrinterDraftMode= 0
PrinterFormFeed= 0
PaperSize= 5
PaperWidth= 115
PaperHeight= 280
MarginLeft= 5
MarginRight= 5
MarginTop= 5
MarginBottom= 5
    
```

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