



Siebel Order Management Guide

Version 7.8, Rev B
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1

What's New in This Release

What's New in Siebel Order Management Guide, Version 7.8 Rev B

Table 1 lists changes in this version of the documentation to support release 7.8 of the software.

Table 1. New Features in Siebel Order Management Guide, Version 7.8, Rev B

Topic	Description
"Process of Enabling the Automatic Configuration of Customizable Products" on page 167	New topic. It describes how to enable the automatic configuration of customizable products for bundled promotions containing customizable products.
Workflows That Support the Automatic Configuration of Customizable Products on page 269	New topic. It describes the workflows that are required to support the automatic configuration of customizable products for bundled promotions containing customizable products.

What's New in Siebel Order Management Guide, Version 7.8 Rev A

Table 2 lists changes in this version of the documentation.

Table 2. New Features in Siebel Order Management Guide, Version 7.8, Rev A

Topic	Description
"Activating Workflows for Order Management" on page 21	Added this section.
"Setting Up Shipping Information" on page 23	Modified to incorporate new functionality for 7.8.
"Setting Up Order Types" on page 32	Added this section.
Chapter 7, "Integrating Order Management with Third-Party Taxation Applications"	Moved this chapter to this book from <i>Siebel eSales Administration Guide</i> .
Chapter 10, "Creating a Quote or Sales Order."	Modified procedures throughout the chapter to include new end-user pricing fields for 7.8.2. Added information about selecting attributes without using Configurator, which is new functionality for 7.8.2.

Table 2. New Features in Siebel Order Management Guide, Version 7.8, Rev A

Topic	Description
“Using Discount Negotiations View” on page 146	Added this section describing new functionality for 7.8.2.
Chapter 14, “Workflow and Method Reference for Order Management Interface”	Added this chapter.

What's New in Siebel Order Management Guide, Version 7.8

Table 3 lists changes in this version of the documentation.

Table 3. New Product Features in Siebel Order Management Guide, Version 7.8

Topic	Description
Chapter 8, “Creating and Managing Catalogs”	Moved this chapter to this book from <i>Siebel eSales Administration Guide</i> . Added information about dynamic catalog, which is new for 7.8.
Chapter 9, “Setting Up Product Recommendations”	Added this chapter.
Chapter 13, “Using Asset-Based Ordering”	Expanded this chapter to include new asset-based ordering functionality for 7.8.
Chapter 16, “Product Data Service and Import/Export API Reference”	Added this chapter.

2

Overview of Order Management

This chapter provides an overview of the general order management process, and introduces the specific concepts and capabilities available through Siebel Order Management.

To administer order management, you should understand product and pricing administration. For more information about product and pricing administration, see *Siebel Product Administration Guide* and *Siebel Pricing Administration Guide*.

NOTE: Many order management features are available in Siebel eSales and Siebel Partner Portal applications. This book focuses on order management features in employee applications such as Siebel Sales and Siebel Call Center. For details about Siebel eSales and Siebel Partner Portal, see *Siebel eSales Administration Guide* and *Siebel Partner Relationship Management Administration Guide*.

This chapter covers the following topics:

- “About Order Management” on page 15
- “The Order Management Life Cycle” on page 16
- “Scenario for Order Management” on page 16
- “Roadmap for Working with Order Management” on page 17

About Order Management

Siebel Order Management allows employees such as salespeople and call center agents to create and manage quotes and orders through their entire life cycle. Siebel Order Management can be tightly integrated with back-office systems, allowing users to perform tasks such as checking credit and confirming availability, as well as monitoring the fulfillment process.

Asset-based ordering allows quotes and orders to be created based on a customer’s existing assets. Asset-based ordering is particularly useful in supporting companies whose product offerings include complex service products, such as phone services and equipment.

Siebel Order Management allows employees to:

- Create quotes and orders for new products and services
- Create quotes and orders to modify existing products and services
- Modify in-process orders that have been submitted for fulfillment
- Generate order information for submission to back office billing and fulfillment systems

The Order Management Life Cycle

The order management life cycle includes tasks that fall into several groups:

- **Preorder Tasks.** Can include creating accounts, contacts, and opportunities or helping anonymous customers through the needs-analysis process.
- **Order Entry Tasks.** Can include selecting products and services, capturing quotes and orders, verifying products and pricing, checking availability to promise, entering shipping, tax, and payment information, and performing a credit check.
- **Post-Order Tasks.** Can include fulfilling the order, providing the customer with order status, notifying the customer that the order has shipped, creating supplemental orders, and monitoring or modifying activities that support the order, such as installation.

Scenario for Order Management

This scenario provides an example of how order management can be used. Your company may follow a different process according to its business requirements.

- When your customer expresses interest in your products and services, you keep track of that information and help the customer identify the appropriate solution. A sales representative creates an opportunity and records the best solution to meet the customer's needs.
- After the best solution is identified, you provide a quote that details the products and their prices. A sales representative converts an opportunity to a quote, or creates a quote manually. Products and services are customized so that your customers specify exactly what options they are interested in and see the associated prices for each option.
- Your customer accepts a quote, and it is converted to an order. (Or, a sales representative creates an order directly, without creating a quote.)
- The sales representative enters shipment information and checks on the availability of the items. If an order contains a number of items, the sales representative checks the availability of each line item. The sales representative also performs tasks such as calculating tax and shipping costs, verifying payment information, checking the customer's credit, and authorizing their use of a credit card.
- The sales representative performs final tasks, such as attaching electronic documents such as a purchase order or a letter of credit to the order, and generating service activities related to the order such as installation.
- The sales representative submits the order. If appropriate, the order is routed for approval by a supervisor. An acknowledgement of the order is automatically sent to the customer by email.
- If you are using asset-based ordering, when the order has been filled, the appropriate product line items become assets. Assets are associated with your customer's account and are a central part of your customer's service profile.

When using asset-based ordering, not all products in an order convert to assets. For example, if you create an order for telephone service, the installation is a line item of the phone service product, but it does not become an asset. You specify what products will become trackable assets through the Product Administration screen.

- If your customer wants to revise an order before it has been fulfilled, you handle the change by modifying unsubmitted orders or by creating supplemental orders that revise submitted orders.
- As the needs evolve over time, the customer may request additions and changes to the products and services. To make these changes, the new quotes and orders are based on the current items in the customer's profile. Requests for changes to existing services are called *delta quotes* or *delta orders*.

NOTE: Although end users may start the order management process at a number of different screens and views, the underlying order management cycle is essentially the same.

Roadmap for Working with Order Management

To set up and work with Siebel Order Management, perform the following processes and tasks:

- **Setting Up Order Management.** The process of setting up order management includes setting up customer accounts and contacts, creating records for sales people, defining products, setting up pricing structures, and developing a catalog of products and services.

For more information, see [Chapter 3, "Setting Up Order Management."](#)

- **Integrating Order Management with Third-Party Applications.** As part of setting up Siebel Order Management, you integrate it with third-party applications that integrate quotes and orders with the back office, check product availability to promise, and check customer credit.

For more information, see [Chapter 4, "Integrating Order Management with Back-Office Applications."](#)

- **Working with Quotes and Orders.** After setup and integration are complete, end users can create quotes and orders in several ways, depending on business need. A sales representative can create an opportunity and use it to generate a quote, can create a quote directly, or can create an order directly, without an opportunity or a quote. A sales representative can also add line items to the quote or order in different ways, depending on whether the user knows the product number, wants to browse through a catalog, or wants assistance selecting the product from Advisor.

For more information how end users can work with quotes and orders, see [Chapter 10, "Creating a Quote or Sales Order,"](#) [Chapter 11, "Working with Quotes,"](#) and [Chapter 12, "Working with Sales Orders."](#)

- **Working with Asset-Based Ordering.** If you use asset-based ordering, your Siebel Business Application can be configured to create an Asset record when an order is placed. You can then create quotes and orders based on these assets. Because asset-based ordering features are workflow-based, they can be customized to meet the specific needs of your company.

For more information about asset-based ordering, see [Chapter 13, "Using Asset-Based Ordering"](#) and [Chapter 15, "Workflow Reference for Employee Asset-Based Ordering."](#)

3

Setting Up Order Management

This chapter describes how to set up Siebel Order Management features. It includes the following topics:

- [“Roadmap for Setting Up Order Management” on page 19](#)
- [“Lists of Values to Update for Order Management” on page 41](#)

NOTE: Tasks required to integrate your Siebel Business Application with back-office systems are not included in this chapter. For information about integration tasks, see [Chapter 4, “Integrating Order Management with Back-Office Applications.”](#)

Roadmap for Setting Up Order Management

There are some tasks that all users perform to set up order management, and there are some additional tasks that you might need to perform depending on your business model.

Required Tasks

To set up order management, all users perform the following tasks:

- 1 [“Activating Workflows for Order Management” on page 21](#). Some order management functionality is based on Siebel Workflows. You must activate these workflows.
- 2 [“Setting Up Accounts and Contacts for Order Management” on page 22](#). Accounts are used in many quote and order entry tasks, such as selecting the billing and shipping address. When you create accounts, enter the contacts associated with each account, which will be the contacts that are available to select in a quote or order for that account.
- 3 [“Setting Up Salespeople” on page 22](#). Set up sales people as employees and use Sales Order views to associate them with teams.
- 4 [“Setting Up Products, Pricing, and Catalogs” on page 23](#). To make products available in quotes and orders, you must define products, define price lists that assign prices to products, create product catalogs, and make the catalogs available to users.
- 5 [“Setting Up Shipping Information” on page 23](#). You can define shipping carriers, shipping methods, shipping terms, and set up shipment freight calculation.
- 6 [“Setting Up Tax Calculations” on page 26](#). You can integrate your Siebel Business Application with an external system to calculate taxes due on a quote or an order.
- 7 [“Setting Up Payment Terms and Other Payment Factors” on page 27](#). You can customize payment terms, payment methods, accepted credit card types, and other payment-related factors. Credit card processing is handled through implementation with a third-party payment processing system.

- 8 [“Setting Up Integration for Order Management” on page 32](#). You must set up integration with third-party applications used for checking credit. You must activate workflows used for integration of quotes and orders with back office applications. For information about setting up integration and activating workflows, see [Chapter 4, “Integrating Order Management with Back-Office Applications.”](#)

Optional Tasks

In addition, depending on your business model, you might have to perform some of the following tasks to complete setup of order management.

- 1 [“Setting Up Inventory Locations” on page 31](#). If your business model allows orders to specify that products are shipped from a particular inventory location, you must set up inventory locations.
- 2 [“Setting Up Order Types” on page 32](#). If you want to use different order types than the default types, you must set up order types.
- 3 [“Defining Order Statuses” on page 34](#). If you want to use different statuses types than the default types, you must set up order statuses and use the state model to set up rules for modifying orders with each status.
- 4 [“Creating Product Selection Favorites” on page 34](#). You can create groupings of products that your users will frequently add to orders.
- 5 [“Setting Up Activity Plan Templates” on page 35](#). You can create templates of activities that should be carried out when particular products are ordered. For example, you can indicate all the installation activities required for a particular order.
- 6 [“Letting Users Create Quotes and Orders from Accounts and Contacts” on page 36](#). There are additional workflows you can activate to allow users to create quotes and orders from the Accounts and Contacts screens.
- 7 [“Setting Up Availability to Promise” on page 36](#). You can integrate your Siebel Business Application with a back-office system to check availability of certain products.
- 8 [“Customizing the Sales, Quote, and Order Processes” on page 36](#). You can customize the processes that employee end users will follow to order products and services. You can use Siebel Business Processes to automate many of the steps in your business processes, and you can customize the predefined business processes.
- 9 [“Setting Up Asset-Based Ordering” on page 39](#). If you want to use asset-based ordering, you must perform additional setup tasks.
- 10 **Setting Up Data Validation.** If regulatory agencies or internal processes and procedures require you to verify the quality and accuracy of your transactions, you can set up data validation. For more information, see *Siebel Order Management Infrastructure Guide*.
- 11 **Setting Up Recommendations.** You can display up-sell recommendations, cross-sell recommendations, and other recommendations to customers when they select products. For more information, see [Chapter 9, “Setting Up Product Recommendations.”](#)

Activating Workflows for Order Management

Some order management functionality is based on workflows in Siebel CRM. You must activate these workflows before using the product. For information about activating workflows, see *Siebel Business Process Framework: Workflow Guide*.

Activate the workflows for the other order management functionality that you are using, as listed in [Table 4](#). For example, if you are using Siebel eSales, activate the workflows for eSales.

Table 4. Workflows for Order Management Functionality

Order Management Functionality	Where to Find Workflows
Order Management Interface	Chapter 14, “Workflow and Method Reference for Order Management Interface.”
Pricing	See the reference topics about pricing in <i>Siebel Pricing Administration Guide</i> .
Product Promotions	See the topics about product promotions in <i>Siebel Pricing Administration Guide</i> .
Integration of Quotes and Orders with Back-Office Applications	“Activating Workflows for Integration of Quotes and Orders” on page 49
Configurator	See the reference topics about configurator workflow in <i>Siebel Product Administration Guide</i>
Asset-Based Ordering	Chapter 15, “Workflow Reference for Employee Asset-Based Ordering.”
Eligibility/Compatibility	Eligibility and Compatibility technical reference section of <i>Siebel Product Administration Guide</i> .
Recommendations	See the reference topics about product recommendations in <i>Siebel Product Administration Guide</i> .
Siebel eSales	Workflow reference section of <i>Siebel eSales Administration Guide</i> .
Siebel Advisor	Section about activating workflows for Advisor in <i>Siebel Interactive Designer Administration Guide</i> .
Compound Product Validation	See the topic about compound product validation in <i>Siebel Product Administration Guide</i> .
Third-Party Purchase Order Credit Checking Applications	“Activating the Workflows for Purchase Order Credit Checking Applications” on page 64.
Application Deployment Manager	See <i>Going Live with Siebel Business Applications</i> .

Setting Up Accounts and Contacts for Order Management

The way you set up accounts will affect how users enter shipping and payment information in quotes and orders.

When accounts have multiple locations, they can be set up in one of two ways:

- **Single account for all addresses.** You can create one account and enter multiple addresses entered on the Bill To/Ship To view tab.
- **Separate accounts, one for each address.** When you set up separate accounts for each address, you must create an account hierarchy, where one account is the parent account for the other locations.

Consider which account setup is better for your business, so that you can ship to and bill customers correctly. You will want to consider how this is implemented in your back office, so that you can easily keep information updated between the two systems.

The account setup you choose will impact the implementation of your organization's order management processes, as follows:

- **Single account for all addresses.** The account will be the same in all places on the Payment and Fulfillment screens. You can select the appropriate addresses for billing and shipping. The address fields on quote and order default to the address specified as "Primary" in the Addresses view tab for the account.
- **Separate accounts, one for each address.** You can select different accounts as the bill-to and ship-to entities on the Payment and Fulfillment screens in order to ship to those addresses.

The contacts that you associate with accounts determine the contacts that you can select in quotes and orders. Make sure that you attach the contacts to accounts that you want to have available to users when they create orders.

Use the Account screen to enter accounts and attach contacts to them.

For more information about entering accounts and their contacts, see *Siebel Applications Administration Guide*.

This task is a step in ["Roadmap for Setting Up Order Management" on page 19](#).

Setting Up Salespeople

Before salespeople can create quotes or orders, you must enter the salespeople as employees. For more information about entering employees, see *Siebel Applications Administration Guide*.

This task is a step in ["Roadmap for Setting Up Order Management" on page 19](#).

Setting Up Products, Pricing, and Catalogs

Before employees can create quotes and orders, you must:

- **Set up products.** Define the products that are being sold. If the products have attributes, you can set up a class system to manage the attributes before defining the products. If you have customizable products that have other products as their components, you must specify the components and design the selection pages that users will see.

For information about setting up products, see *Siebel Product Administration Guide*.

- **Set up price lists.** Set up price lists and assign prices to products. You can create multiple price lists if you sell the same products to different customers at different prices. You can create discounts, such as volume discounts and discounts for bundles of products. If you have Siebel Pricer, you can create more advanced pricing rules using pricing models and pricing factors.

For information about setting up price lists, see *Siebel Pricing Administration Guide*.

- **Set up product catalogs.** End users can select products for customers from product catalogs and add them to a quote or an order. When you create a catalog, you specify what products are included in it and arrange them in a hierarchy of categories. Once catalogs are set up, users can browse through categories to find products, and they can search for products using full-text search or parametric search.

For information about setting up and administering catalogs, see [Chapter 8, "Creating and Managing Catalogs."](#)

- **Assign catalogs to employees.** To assign a catalog to an employee, you associate the catalog with an access group that the user is a member of. An employee is a member of an access group, if the employee is associated with a position, organization, division, account, or user list that is a member of the access group. When displaying a list of products, for example, in parametric search, the employee will see only those products that are in catalogs that have been assigned to that employee.

For information about defining access groups, see *Security Guide for Siebel Business Applications*.

This task is a step in "[Roadmap for Setting Up Order Management](#)" on page 19.

Setting Up Shipping Information

You can set up shipping information in the following ways:

- Modify the lists of values used to select shipping information.
- Set up shipping charges based on a number of factors, including the weight of the product, the shipping method, the shipping carrier, and the ship to and ship from location.
- Set up preferred carrier and shipping method for an account.

When end-users create quotes or orders:

- They are able to select the options that you set up in the lists of values,
- The shipping charges that you set up are displayed for each line item and for the quote or order as a whole.
- The preferred carrier and shipping method for the account appear as the default carrier and shipping method.

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

Modifying Lists of Values for Shipping

You can modify the following lists of values that are used to select shipping information:

- **Carriers.** This field specifies what carrier will be used to deliver items in an order. Preconfigured, the available carriers include Airborne, DHL, Emery, Federal Express, UPS, US Mail. Make sure the list of values contains the carriers you want to use. In the Application Administration screen, List of Values Administration view, carriers are listed in records where the Type field has the value FS_CARRIER.
- **Shipping methods.** The Shipping Method field is used primarily to identify how quickly the shipment will occur, and how long delivery will take. The shipping method impacts the shipment charges. Preconfigured, the available methods are Next Day, 2 Day Service, and Ground. You can add other methods by adding them in the list of values. For example, you might want Air, Train, or Ship as a method. In the Application Administration screen, List of Values Administration view, shipping methods are listed in records where the Type field has the value CARRIER_PRIORITY.
- **Shipping terms.** The Shipping Terms field is used to specify the relationship between payment and shipping. Preconfigured, the available shipping terms are Due, FOB, TBD, No charge. You can add other terms by adding them in the list of values list. In the Application Administration screen, List of Values Administration view, shipping terms are listed in records where the Type field has the value FREIGHT_TERMS.
- **Shipment freight calculation.** The result of the shipment freight calculation shows in an order in the Shipping Charges field, in Line Items Totals form. Shipping is calculated at the line level, and is then rolled up for all line items and displayed in the Totals form.

For more information about changing lists of values, see *Siebel Applications Administration Guide*.

Setting Up Shipping Charges

To set up shipping charges, first you define shipping zones, and then you define the charges for each zone. A shipping zone includes both a ship-from location and a ship-to location.

These shipping charges apply to employee applications. For information about setting up shipping charges for Siebel eSales, see *Siebel eSales Administration Guide*.

To set up shipping charges

- 1 Navigate to the Administration - Order Management screen, then the Shipping view.
- 2 In the Shipping Zone list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Comments
Ship Carrier	Select a carrier.
Ship Method	Select a shipping method.
Ship From Minimum	Enter the smallest number of the range of postal codes where the ship-from addresses of this zone are located.
Ship From Maximum	Enter the largest number of the range of postal codes where the ship-from addresses of this zone are located.
Ship From Country	Select the country where the ship-from addresses of this zone are located.
Ship To Minimum	Enter the smallest number of the range of postal codes where the ship-to addresses of this zone are located.
Ship To Maximum	Enter the largest number of the range of postal codes where the ship-to addresses of this zone are located.
Ship To Country	Select the country where the ship-to addresses of this zone are located.
Shipping Zone	Enter the code for this shipping zone.

- 3 Add a new record to Shipping Rate list for each shipping charge for this zone, and complete the necessary fields. Some fields are described in the following table.

Field	Comments
Ship Carrier	Select a carrier.
Ship Method	Select a shipping method.
Shipping Zone	Enter the code for this shipping zone.
Minimum Weight	Enter the minimum weight for this charge.
Maximum Weight	Enter the maximum weight for this charge.
Cost	Enter the cost for shipping products of this weight range in this zone.

Setting Up Preferred Carrier and Shipping Method for Accounts

If you set up the preferred carrier and shipping method for an account, this carrier and shipping method appear as defaults when users create quotes and orders for this account.

To set up the default ship method for an account

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the desired account.
- 3 Click the More Info view tab.
- 4 In the More Info form, complete the necessary fields, described in the following table.

Field	Comments
Preferred Carrier	Select the default carrier for this account.
Preferred Shipping Method	Select the default shipping method for this account.

Setting Up Tax Calculations

Tax calculations can be done manually, or through the Tax Calculator business service, which makes a call to Taxware, provided by a third-party vendor.

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

Entering Taxes Manually

Users can enter tax information directly in the tax fields, in the Payments view in an order.

In the Payments form, the user will either enter the tax rate or will select a tax exemption code and tax exemption ID, if the customer indicates they are exempt from taxes.

If users enter tax information manually, the only required setup is to define the appropriate tax exempt codes in the list of values.

In the List of Values Administration view of the Application Administration screen, tax exempt codes are listed in records where the Type field has the value GLOBAL_TAX_EXEMPTION.

For information about changing lists of values, see *Siebel Applications Administration Guide*.

Using a Third-Party System to Calculate Taxes

You can use Taxware, an external third-party system, to calculate taxes on quotes and orders. Clicking the Calculate Taxes step button the Tax Calculator business service, which makes a call to the third-party application. The Calculate Tax business service sends information about each line information, such as the product and the ship-to address, which allows Taxware to calculate the amount to be charged for each line items. The total of the tax on all the line items is displayed as the tax for the entire order.

When using a third-party system, the end user should make sure that the ship-to addresses are correct and then click the Calculate Taxes button on the Line Items Totals form. The amount of the tax will appear on the Total form, and the tax rate will appear in the Payments form. Because ship-to addresses can vary for different line items in an order, the tax rate can also vary for different line items. (For details on the user's experience of this feature, see ["Calculating Taxes" on page 151](#).)

NOTE: For products with components, taxes may be calculated either on the individual components, or on the extended price for the product with components. The method used is determined by the Tax Subcomponent check box in the Product Administration screen. For more information, see *Siebel Product Administration Guide*.

Tax-exempt information can be entered in your Siebel Business Application on the Payments view tab in a quote or order.

However, customers can also file their tax-exempt information with a tax provider for validation. When the third-party tax system contains tax-exempt information, that information is updated when the user clicks Calculate Taxes.

If you want to hide the tax-exempt fields from users, you must customize the Payments form in Siebel Tools. There are three tax-exempt fields: Tax Exempt Flag, Tax Exempt Reason, and Tax Exempt Certification ID.

For details about setting up and using a third-party taxation application, see *Siebel eSales Administration Guide*.

Setting Up Payment Terms and Other Payment Factors

When you set up order management, you should consider the following payment factors:

- ["Defining Payment Terms" on page 27](#)
- ["Credit Card Processing" on page 28](#)
- ["Credit Card Authorization and Verifications" on page 28](#)
- ["Credit Card Types" on page 28](#)
- ["Defining New Methods of Payment" on page 29](#)
- ["Define a Mailing Address for Check Payment" on page 30](#)
- ["Creating Payment Profiles" on page 30](#)

This task is a step in ["Roadmap for Setting Up Order Management" on page 19](#).

Defining Payment Terms

Payment terms are used to specify when payment is due, in relation to the order date or ship date. For example, payment terms might include terms such as Net 10, Net 20, Net 30, Net 60. Users select them on the Payments view tab of a quote or order.

To define a new payment term

- 1 Navigate to the Administration - Data screen, Orders, and then the Payment Terms view.
- 2 In the Payment Terms list, add a new record.
- 3 Enter a name for this payment term and complete appropriate fields to define the payment terms.

Use the following procedure to change the settings for current payment terms.

To change settings for current payment terms

- 1 Navigate to the Administration - Data screen, Orders, and then the Payment Terms view.
- 2 In the Payment Terms list, select the appropriate record and make the necessary changes.

Credit Card Processing

Credit card processing is done through integration with a third-party processing system. For details about how to set this up, see *Siebel eSales Administration Guide*.

NOTE: Integration for credit card processing is provided with Siebel Order Management. If you want to integrate with a back-office system to provide processing of other payment methods, you can use Siebel Tools to set up new business services to provide this functionality. For more information, see *Using Siebel Tools*.

Credit Card Authorization and Verifications

Your Siebel Business Application comes preconfigured with business services for some third-party services. If you use a different third-party service, you might create special Business Services for card authorization and verification.

You can change the use of the following fields:

- **Authorization Code.** The Authorization Code field is not preconfigured to populate automatically. If your back-office system sends an authorization code, you may want to create a business service to interface with Siebel Order Management.
- **Card Verification #:** The credit card verification number is a four-digit unique identifier that is often printed on the back of a credit card. It is used to reduce fraud because only the person holding the card should know it.

NOTE: To avoid exposing sensitive data, when implementing credit card verification, consider how to clear the Card Verification # from your database.

Credit Card Types

Siebel Order Management provides these credit card types preconfigured: Visa, Mastercard, Discover, and American Express.

You can add more credit card types by entering them as values in the List of Values list. Add a record with the Type PAYMENT_TYPE_CODE, and add a value in the Order field to associate it with a payment method.

In the Order field, the number range for credit cards is 10 to 20. Values 11 through 14 are preconfigured for Visa, Mastercard, Discover, and American Express. You can use a value between 15 and 19 to enter in the Order field for the new credit card, so all the credit cards appear together.

NOTE: If you need to add a payment type for a payment method other than credit card, use these value ranges in the Order field:

Check method: 20-29
 Stored value method: 40-59

If you create another payment method which requires payment types, use the range 60-80 for the new method.

To add new credit card types

- 1 Navigate to the Administration - Data screen, then the List of Values view.
- 2 Create a new record in the List of Values form.
- 3 In the Type field, enter is PAYMENT_TYPE_CODE.
- 4 In the Order field, enter a value between 15 and 19 to associate this record with a payment method.

Defining New Methods of Payment

Siebel Order Management comes preconfigured with these payment methods: cash, credit card, purchase order, stored value, wire transfer, and check. Each method has a predefined set of fields to support the information needed for this method of payment.

NOTE: The Orders screen allows more payment method information to be captured and displayed than the Quotes screen. For example, the stored value payment method is not available in a quote, and the fields available for the other methods are limited.

You can add more payment methods. To do so, you need to perform the following steps using Siebel Tools and the List of Values Administration view:

- 1 In the Business Component *Payments*:
 - a Add a Business Component User Property, such as
 - Name: Payment Method Type 4
 - Value: MY Method
 - b Change the Calculated Value of the Field Payment Type Read Only Flag. For example, change the value to:


```

                    If ([Payment Method LIC] = "Credit Card" OR [Payment Method LIC] = "Check" OR
                    [Payment Method LIC] = "Stored Value" OR [Payment Method LIC] = "Purchase Order"
                    OR [Payment Method LIC] = "MY Method", "N", "Y")
                    
```

2 In the List Of Values Administration view:

a Add the new payment method value to LOV Type PAYMENT_METHOD_CODE. For example, add:

Display Value = LIC: MY Method
Order: 17

b Add the corresponding payment type values to LOV Type. For example:

Display Value = LIC: MY Method Type 1
Order: 81 (= <number of the Business Component User Property> * 20 + 1)

Display Value = LIC: MY Method Type 2
Order: 82 (= <number of the Business Component User Property> * 20 + 2)

After you have done this, when the user when the user create a new Payments record, the user can:

- Select the new payment method.
- Find the corresponding payment type values in the pick list on field Payment Type.

You can also require that the user complete particular fields for each payment method. You can add required fields to the business component *Payments* in Siebel Tools. You must also add an additional toggle applet to Applet: Payment Detail - Credit Card, to allow the user to enter these values.

Define a Mailing Address for Check Payment

Customers paying by check often need to know where to send the payment. A field in the Payment Detail form for check payments provides a convenient place to display this type of information, so the sales representative can communicate it to the customer. This field is labeled Check Mailing Address in the Payment Detail - Check form in the Order Entry - Payment view.

You can enter the information that should display in this field in Siebel Tools, in the Payments business component, in the user property Check Mailing Address.

Creating Payment Profiles

- Credit Card
- Purchase Order
- Check
- Wire Transfer

After you have selected a payment method, you enter the appropriate details for that method. For example, if you selected Credit Card as the method, you enter details such as the name of the card holder, the credit card number, and the expiration date.

When salespeople create quotes or orders, they can use the Payment Details view of the Quote or Order screen to select the payment method for the customer. For example, if they select a credit card, all the information for that credit card is automatically entered in the quote or order, so the salesperson does not have to enter it manually.

NOTE: You may have to use the site map to navigate to the Payment Profile views.

To enter payment profiles

- 1 Navigate to the Account screen, Accounts List, then Payment Profiles view, or the Contact screen, Contacts List, then the Payment Profiles view.
- 2 In the Account or Contact list, select the desired account or contact.
- 3 Add records to the Payment Profiles list and complete the necessary fields. Some fields are described in the following table.

Field	Comments
Primary	Select this check box if this is the customer's primary method of payment.
Profile Name	Enter a name for the payment profile.
Payment Method	Select the payment method. Options are Credit Card, Purchase Order, Check, Wire Transfer.
Expiration Date	Enter the date when this payment method expires. Salespeople cannot use it after this date.
Status	Select a status for this payment method. Options are: <ul style="list-style-type: none"> ■ Inactive. The payment method has not yet been activated. ■ Active. The payment method is active. This must be selected to make the payment method available to salespeople. ■ Suspended. The payment method is no longer active.

- 4 In the details form under the list, enter the appropriate details for this payment method.
 The details form changes depending on the value you selected in the Payment Method field. For information about the fields in each detail form, see ["Payment Fields for Payment Methods" on page 155.](#)

Setting Up Inventory Locations

In some businesses, when users inquire about availability of a product, they can request a particular inventory location, and when products are reserved, they are promised from a particular source.

Inventory locations are used to identify where products are stored and the source from which the product will be fulfilled.

An inventory location may be a warehouse, a trunk, or a field office, or it may be virtual.

For more information about setting up inventory locations and working with inventory, see *Siebel Field Service Guide*.

This task is a step in ["Roadmap for Setting Up Order Management" on page 19.](#)

Setting Up Integration for Order Management

You can integrate order management with third-party applications. For information about setting up integration, see:

- [Chapter 4, “Integrating Order Management with Back-Office Applications”](#)
- [Chapter 5, “Integrating Order Management with Third-Party Product Availability Applications”](#)
- [Chapter 6, “Integrating Order Management with Third-Party Credit-Check Applications”](#)
- [Chapter 7, “Integrating Order Management with Third-Party Taxation Applications”](#)

This task is a step in [“Roadmap for Setting Up Order Management”](#) on page 19.

Setting Up Order Types

Siebel Orders and Siebel Order Management initially define nine types of orders, as listed in [Table 5](#) below.

You can define additional order types to meet your needs, or you can edit the existing list of values.

This task is a step in [“Roadmap for Setting Up Order Management”](#) on page 19.

Table 5. Initial Types of Orders

Type of Order	Typical Use
Internal order	An order used to replenish stock or move inventory among inventory locations.
Purchase order	An order used to buy parts from external vendors.
RMA (Return Material Authorization) Advance Exchange	An order used to handle customer returns that require receiving and immediate shipping of exchange parts, before receiving the returned part.
RMA Repair Return	An order used to handle customer returns that require receiving, repairing, and shipping back to customers.
RMA Return	An order used for receiving inbound returns from customers.
Repair order	An order used for ordering, shipping, and receiving parts to be repaired by a third party.
Sales order	A customer order that is owned by, processed by, and credited to a sales business. Typically, selling new finished goods to customers, normally from manufacturing inventory.

Table 5. Initial Types of Orders

Type of Order	Typical Use
Service order	A customer order that is owned by, processed by, and credited to a service business. Typically, a request from a customer for service on existing products, including replacement and repair of parts.
Web Order	A sales order created at a Web site or requested directly over the Internet.

Each order type is either a sales order or a service order. This is determined by the Type Code associated with it in the Data Administration screen, Order Type view.

Each order type has action types associated with it. Action types are used primarily in Siebel Field Service. For more information about action types, see *Siebel Field Service Guide*.

Defining a New Order Type

Use this procedure to define a new order type.

To define a new order type

- 1 Add the necessary order types to the List of Values list.

In the Administration - Data screen, the List of Values view, records for order types have FS_ORDER_TYPE in the Type field.

For more information about managing lists of values, see *Siebel Applications Administration Guide*.

- 2 Navigate to the Administration - Data screen, then the Order Types view.
- 3 In the Order Types list, add a new record.
- 4 In the Order Type field, select a value from the drop-down list.

Adding or Changing the Display Value of Order Types

To configure the product using Siebel Tools to add new order types or to change the display value of Order Types, you must perform additional configuration steps for the homepage to work correctly. The following procedures show you how to configure the homepage.

To configure the home page when you add new order types

- 1 In Siebel Tools, query for *Order Entry - Orders Home Add Virtual Form Applet*.
- 2 Under Drilldown Object, add an entry for the new Order Type.
- 3 Under the Dynamic Drilldown Destination of the original Drilldown Object, add an entry to point to the newly created Drilldown Object.

- 4 Repeat [Step 1](#) to [Step 3](#) for *Order Entry - Orders Home Search Virtual Form Applet*.
- 5 Repeat [Step 1](#) to [Step 3](#) for *Recent Record Order Entry - Orders List Applet*.

Use the following procedure to configure the home page (for example, when you change the display value of an order type).

To configure the home page when you change the display value of an order type

- In the Order Types view of the Administration - Data screen, update the order type to point to the new LOV display value.

Defining Order Statuses

Siebel Orders and Siebel Order Management come with a number of preconfigured order statuses. You can create additional statuses, if you need them, or edit the existing list of values.

See [Table 7 on page 42](#) for the Type field in List of Values Administration that you use to work with this list of values.

For more information about managing lists of values, see *Siebel Applications Administration Guide*.

When you create a new order status, you can determine what fields can be changed when an order has that order status. Often these rules mirror back-office constraints. For example, the Ship to Address cannot be changed after the order has been picked up or shipped. Similarly, order quantities and details cannot be changed after an order has been submitted.

To specify which records can be changed depending on order status, use the state model. For more information about working with state models, see *Siebel Business Process Designer Administration Guide*.

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

Creating Product Selection Favorites

Product selection favorites are combinations of products that have been saved for easy reuse. The entire favorite can then be added to a quote or order, instead of adding each product individually.

An administrator can set up product favorites in advance and make them publicly available. Also, individual users can create private favorites of frequently used products.

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

To set up a product selection favorite

- 1 Navigate to the Administration - Product screen, then the Favorites view.
- 2 In the Favorites list, add a new record new records and complete the necessary fields. Some fields are described in the following table.

Field	Comments
Name	Enter a name for the favorite.
Type	Select Private to make this favorite available only to yourself, or public to make it available to all end users.

- In the Product Favorite Items list, add a record.
The Pick Product dialog box appears.
- In the dialog box, select one or more products and complete the necessary fields. Some fields are described in the following table.

Field	Comments
Order Qty	Enter the quantity of this product in the favorite.
Product	Displays the name of the product. If you enter a value for Order Qty, the product is included in the favorite.

- In the dialog box, click OK.
The products you selected are added to the Product Favorite Items list.

Setting Up Activity Plan Templates

In Siebel Order Management, activity templates are useful to itemize the activities that should occur after an order for a particular product is placed or filled. For example, when a product requires installation, you want to make arrangements for the installation when the order is placed.

Activity templates are typically created by an administrator, so that they are available when a sales administrator or call center agent creates an order.

The following steps describe how to create an activity template. For information on how to associate a template with an order, see [“Associating an Activity Plan or Activity with an Order” on page 195](#).

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

To create an activity plan template

- Navigate to the Administration - Data screen, then the Activity Templates view.
- In the Activity Plan Templates list, add a new record and complete the necessary fields. Some fields are described in the following table.

Field	Comments
Name	Enter a name for the template.
Type	Choose the type Order Entry - Line Items.

Field	Comments
Sales Stage	Select the sales stage when this template is available.
Auto Trigger	Select this check box to provides the activities from this template to a sales stage, when the sales stage is set for an opportunity
Public	Select this check box to allow others not on your team to use this activity plan.

- 3 Click the Activity Template Details view tab.
- 4 In the Activity Template Details list, add a new record for each required activity, choose an activity type, and then complete the other necessary fields.

Letting Users Create Quotes and Orders from Accounts and Contacts

There are workflows you may activate if you want users to be able to create quotes and orders from the Accounts screen and the Contacts screen.

For more information, see [“Setting Up Integration for Order Management” on page 32](#).

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

Setting Up Availability to Promise

You can integrate your Siebel Business Application with a back-office system to check the availability of certain products.

For more information, see [Chapter 5, “Integrating Order Management with Third-Party Product Availability Applications.”](#)

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

Customizing the Sales, Quote, and Order Processes

You can customize the sales, quote and order process by using:

- [New or Modified Workflows](#)
- [Configuration with Siebel Tools](#)

This task is a step in [“Roadmap for Setting Up Order Management” on page 19](#).

New or Modified Workflows

Some actions in the Quote and Order screens are set up using Siebel Workflows, such as the following:

- To allow users to create quotes and orders from the Account screen and the Contact screen, you enable a set of workflows.
- To use asset-based ordering, you enable a set of workflows.
- Some of the ASI-based functions that allow you to integrate with back-office systems also use workflows. For example, submitting an order activates a workflow, as does performing a credit check.

You can customize these workflows to carry out the specific processes required for your business. You can also create additional workflows as needed to support your business process.

Here are some changes you might make to customize the order management process using new Siebel Workflows:

- **Quote Verification.** By default, users can verify a quote manually by choosing the Verify menu option from the menu. You can create a workflow that verifies quotes automatically.
- **Approval Requirements.** Siebel Quote and Order screens include fields for required approvals which are used manually by default. For example, a sales representative might be required to get a supervisor's approval for orders above \$500. Preconfigured, the sales representative would need to put a manager's name in the Approved By field. You can create a Workflow that would automatically route an order to the supervisor for approval when the amount exceeded \$500. You would use a combination of Siebel Business Process Designer and Assignment Manager to route the approval to the appropriate supervisor.
- **Customer Acknowledgements.** You can create Workflows to automatically send order confirmations to customers. When the status of an order changes, the Workflows send the appropriate messages to the customer. Siebel eSales includes preconfigured workflows that send acknowledgements to customers, which you can use models to create similar workflows for use in order management. The eSales workflows are:
 - Send Order Accepted Email (eSales). Sent to all users who place an order successfully.
 - Send Order Awaiting Approval Email (eSales). Sent to the purchasing manager for an account when an order with a status of Awaiting Approval needs to be reviewed.
 - Send Order Failed Email (eSales). Sent to a user when an auction is silently closed and turned into an order, but the credit card used cannot be authorized.
 - Send Order Rejected Email (eSales). Sent to a corporate user when the purchasing manager or delegated customer administrator has rejected that corporate user's order.
 - Send Order Shipped Email (eSales). Sent to a user when that user's order has been shipped.

You can also customize workflows that are shipped with the product, in order to add or remove steps or change the order in which steps are performed. For a reference to these workflows, which will help you understand them so you can modify them, see [“Workflow Reference for Employee Asset-Based Ordering” on page 239](#).

For more information about creating and customizing Workflows, see *Siebel Business Process Designer Administration Guide*.

Configuration with Siebel Tools

You can use Siebel Tools to configure Siebel screens and views to match the processes used in your company. For example, you can define the default view that users see when they log in, so that users start on the screen that they use the most frequently. You can also add, remove, or change the names of fields.

You also can use Siebel Tools to change user properties to customize some order management capabilities.

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

Component Quantity Edits

Component quantity edits are an example of one possible user property change you might want to make in Siebel Order Management.

Typically, a user changes the quantity of a component in the configuration session that starts after clicking the Customize button in the Line Items list. In this case, Siebel Configurator checks all configuration rules to make sure that the change in quantity is appropriate.

Your company can decide to allow changes to component quantities directly in the Line Items list in the Quote or Order. For this to occur, the user property Configuration ReadOnly Fields must be set in Siebel Tools.

When this user property has been set, the Qty field in line item for components of products with components is editable. If the Qty field is read-only, then this user property has not been set.

Other User Properties in Order Management

Some other user properties that you might want to change to customize order management functionality are listed in [Table 6](#).

Table 6. User Properties in Order Management

User Property	Buscomp or Applet	Function
Check Minimum and Maximum Price	Quote Item, Order Entry - Line Items, FS Agreement Item	Checks minimum and maximum price when making manual adjustments to line item.
Skip Loading Default Cfg Instance	Quote Item, Order Entry - Line Items, FS Agreement Item	Sets to 'Y' to skip the loading if the default configurable product instance when adding a new configurable product to a quote.
Spread Discount - Use Root Product Type	Quote Item, Order Entry - Line Items, FS Agreement Item	If set to 'Y' and spreading a discount by type, spreads on components if the root type is the type selected. Otherwise, spreads on the type of component only if the type of component itself matches the selected spread type.

Table 6. User Properties in Order Management

User Property	Buscomp or Applet	Function
Add Items Limit To Price List	Internal Product Popup	Limits the products that display in the Add Items dialog box to records contained within the price list.
Configuration ReadOnly Fields	Quote Item List Applet, Order Entry - Line Item List Applet, FS Agreement Item List Applet	Removes the entries for Quantity and Quantity Requested to make the quantity of configurable product components editable within the list applet.
Minimum CC Txn Amount	Payments BusComp	Sets the minimum amount payable by credit card when entering a payment line.
Minimum Cash Txn Amount	Payments BusComp	Sets the minimum amount payable by cash when entering a payment line.
Minimum Check Txn Amount	Payments BusComp	Sets the minimum amount payable by check when entering a payment line.
Minimum Purchase Txn Amount	Payments BusComp	Sets the minimum amount payable by purchase order when entering a payment line.
Minimum Stored Txn Amount	Payments BusComp	Sets the minimum amount payable by stored value when entering a payment line.
Minimum Wire Txn Amount	Payments BusComp	Sets the minimum amount payable by wire transfer when entering a payment line.
Check Mailing Address	Payments BusComp	Mailing address for check.

Setting Up Asset-Based Ordering

Asset-based ordering is available with the Siebel Order Management module. Asset-based ordering adds the following features to the application:

- The Account Summary and Installed Asset views in the Accounts screen.
- The following buttons that are specific to asset-based ordering:
 - In the Account Summary screen, New, Modify and Disconnect
 - In the Order screen, Submit and Auto Asset
 - In the Quote and Order Line Items view, Customize

NOTE: Note that the Submit button on the Order screen and the Customize button on the Quote and Order Line Items view also work when asset-based ordering is turned off. From the user’s perspective, the action triggered by clicking these buttons is the same. However, when asset-based ordering is turned on, the buttons perform these actions by running a workflow.

To set up asset-based ordering, perform the following tasks:

- 1 **Setting the Server Component Parameter.** Set the server component parameter *Order Management - Enable Asset Based Ordering* to True.
- 2 **Making Changes to the Asset-Based Ordering Workflows.** If necessary, change the asset-based order workflows to reflect your business needs.
- 3 **Activating the Workflows.** Activate the asset-based ordering workflows in the Business Process Designer screen.

This task is a step in [“Roadmap for Setting Up Order Management” on page 19.](#)

Setting the Server Component Parameter

You must change set a server component parameter to True to use the asset-based order workflows associated with the Configure and Submit buttons.

Use the following procedures to set the parameter for the Web Client (used when you are connected to the Web) and for the Mobile Web Client (used when you are not connected to the Web, for example, to work remotely on a laptop).

To set the server component parameter for the Web Client

- 1 Navigate to the Administration - Server Configuration screen, Enterprises, and then the Component Definitions view.
- 2 Use a query to find the object manager for the application in which you want to use asset-based ordering. For example, you might query for Call Center Object Manager (ENU).
- 3 Click the Parameters view tab.
- 4 Query for the parameter *Order Management - Enable Asset Based Ordering*.
- 5 Set the Current Value to True and save by stepping off the record.
- 6 Perform step 3 through step 6 for the object manager for each application in which you want to use asset-based ordering.
- 7 Restart the object managers for which you made the change.

Use the following procedure to set the server component parameter for the Mobile Web Client.

To set the server component parameter for the Mobile Web Client

- 1 Use any text editor to add the .cfg file for the application.
- 2 In the .cfg file, add the following section:

```
[InfraObjMgr]
AssetBasedOrderingEnabled = TRUE
```


Making Changes to the Asset-Based Ordering Workflows

You can adjust the behavior of asset-based ordering by making changing workflows.

All workflows for asset-based ordering begin with the characters SIS OM. You can access all of these workflows by querying for SIS OM* in the Business Process Administration screen, then the Workflow Processes view.

For more information about the asset-based ordering workflows, see:

- [Chapter 13, “Using Asset-Based Ordering”](#) describes the user’s view of how asset-based ordering functionality works by default.
- [Chapter 15, “Workflow Reference for Employee Asset-Based Ordering”](#) describes the asset-based ordering workflows.

For information about customizing workflows, see *Siebel Business Process Designer Administration Guide*.

Activating the Workflows

You must activate the workflows that provide asset-based ordering features to make those features available.

- All workflows that begin with *SIS OM*
- In addition, activate the following workflow:
 - CUT Quote To Order PMT Enhancement - Sub Process

For information about activating workflows, see *Siebel Business Process Designer Administration Guide*.

Lists of Values to Update for Order Management

Many of the changes you make while setting up order management are implemented by adding to or changing the items available in drop-down lists throughout the order management screens.

The lists of values that relate to order management are shown in [Table 7](#). The third column shows the value of the List Of Values Administration view, Type field that determines what values are included in each of these lists of values.

For more information about maintaining lists of values, see *Siebel Applications Administration Guide*.

Table 7. Lists of Values for Order Management

View	Field	Type Field in LOV Admin
More Info	Order Type	FS_ORDER_TYPE
	Order Status	FS_ORDER_STATUS
	Hold Reason	SAP_SO_HEADER_DELIV_BLOCK
	Return Reason	RETURN_REASON
	Priority	FS_INVLOC_ORDPRI
	Default Discount %	EST_HW_DISC
Line Items/Totals	Shipping Method	CARRIER_PRIORITY
	Shipping Terms	FREIGHT_TERMS
	Carrier	FS_CARRIER
Line Items/Line Detail	Shipping Method	CARRIER_PRIORITY
	Unit of Measure	UNIT_OF_MEASURE
	Hold Reason	SAP_SO_HEADER_DELIV_BLOCK
	Product Status	FS_PRODINVCAT_STATUS
Fulfillment	Available Status	ATP_STATUS
	Return Reason	RETURN_REASON
	Priority	FS_INVLOC_ORDPRI
	Time to Reserve Unit of Measure	PERIOD_UOM
Payments	Tax Exempt Reason	GLOBAL_TAX_EXEMPTION
Payment Detail	Payment Method	MMOP_METHOD_TYPE
	Payment Type	PAYMENT_TYPE_CODE
	Payment Status	MMOP_PAYMENT_STATUS

4

Integrating Order Management with Back-Office Applications

This chapter describes the setup required to integrate Siebel's order management applications with back-office systems. This setup is required to send and receive information when end users submit quotes and orders, check the status of an order, request information about availability to promise order items, and check the credit status for a customer. All of these functions use the Application Services Interfaces (ASIs).

This chapter covers the following topics:

- ["Integration Strategy for Order Management" on page 43](#)
- ["Smart Part Numbers and Order Management Integration" on page 44](#)
- ["About ASIs for Order Management" on page 44](#)
- ["Setting Up Quote and Order ASIs" on page 46](#)
- ["Process of Integrating Quotes and Orders with Back-Office Applications" on page 47](#)
- ["ASI Workflows for Quotes and Orders" on page 49](#)

For more information about Application Services Interfaces, see *Siebel Application Services Interface Reference*.

To plan how to integrate order management into your other systems and processes, see:

- *Overview: Siebel Enterprise Application Integration*
- *Integration Platform Technologies: Siebel Enterprise Application Integration*

Integration Strategy for Order Management

If you integrate Siebel Business Applications with back-office, accounting, and other systems, you must develop an integration strategy. The integration tasks you should consider depend on the business needs of your company. Some tasks you may want to consider are in the following list.

- **Determine the system of record for each of the key data elements.** Some of the data elements you should consider are:
 - Item masters (product)
 - Configuration and pricing rules
 - Customer master
- **Decide how to replicate data.** You can either replicate data between your Siebel Business Application and your back-office application, using batch replication at regular intervals (typically daily), or use real-time replication.

If you use real-time replication, you must define a triggering event that causes data to be replicated on both systems. For example, you might define the triggering event to be a transaction such as entering a new customer or a new product. Then the replication would occur when the transaction is submitted. Alternatively, you might add a button to an applet that runs a workflow that triggers replication.

- **Define the points in your business process when you want to update information across systems.** You identify points in the business process when you should use ASIs to update information between your Siebel Business Application and your back-office or a third-party system. For example, when the status of an order is updated in a back-office system, you might want the order status in your Siebel Business Application to be updated automatically.

If an end user of the Siebel Business Application performs a query while accessing a new order, you could have the back-office system update the Siebel order in real-time. If your back-office system has the capability to do this, you can implement it using the Update Siebel Order ASI. However, if it is not feasible for your back-office system to provide this update in real-time, the end user can click a Get Status button on the user interface to request the updated order information.

Smart Part Numbers and Order Management Integration

When interfacing with back-office fulfillment systems, it is very important that each product can be identified. Smart part numbers are unique keys used to identify each combination of product ID and product attributes. The smart part number becomes the SKU used in the back office.

You can create smart part numbers manually, or you can interface with an auto-generation system.

The smart part number for each line item appears in the Order screen, in the Line Detail subview associated with the line item. For more information about smart part numbers, see *Siebel Product Administration Guide*.

About ASIs for Order Management

Application Services Interfaces (ASIs) for Siebel CRM are predefined interfaces that allow the exchange of information between Siebel Business Applications and external applications.

Several features of Siebel Order Management use ASIs. They include:

- **Availability to Promise.** Availability to promise (ATP) allows end users to inquire whether an item is available. End users can specify a requested date, a specific source such as an inventory location, and preferred shipment methods that could impact the delivery time. End users can also

reserve available products for a customer to make sure they will be available when the order is processed, and they can unreserve products if customers change their minds.

When the user clicks the Inquire, Reserve, or Unreserve button in a quote or order, the business service sends a request to a back office fulfillment engine to determine whether the specified line items are available. For details about how to set up the Availability to Promise ASI, see [Chapter 5, “Integrating Order Management with Third-Party Product Availability Applications.”](#) For details about the user’s experience of using the ATP functionality, see [“Checking Availability to Promise \(ATP\)” on page 152.](#)

- **Credit Check.** When a customer uses the purchase order payment option for a quote or an order, the end user can perform a credit check to make sure that the customer can make the purchase on credit. In an order, the user clicks the Credit Check button in the Payment view tab to perform the credit check. In a quote, credit check is performed as part of the verification process when the user chooses the Verify menu option.

Both actions launch a workflow that first determines if credit check is applicable for the selected quote or order and then, if needed, sends a request to an external system to get the credit decision for that transaction. Typically, the external system that performs the credit check is the back-office order or credit management system. For details about how to set up the Credit Check ASI, see [Chapter 6, “Integrating Order Management with Third-Party Credit-Check Applications.”](#) For details about the users’ experience of using the credit check functionality, see [“Checking Credit for a Purchase Order” on page 161.](#)

- **Submit Order.** When users have finished defining an order for a customer and the customer has agreed to the price and provided payment information, the order is submitted to the back office. When the user clicks the Submit button, the Submit Order ASI workflow sends information about the order to the back office system. For details about setting up the ASIs used by this workflow, see [“Setting Up Quote and Order ASIs” on page 46.](#) For details about the user’s experience of using the submit order functionality, see [“Submitting an Order” on page 194.](#)

- **Submit Quote.** After a quote has been verified, the user can submit the quote to the back-office or any external system. When the user chooses the Submit menu option for a quote record from the menu on the Quote list, the Submit Quote ASI workflow sends the quote information to the external system and updates Siebel with the response from the external system.

The external system might use the quote information for converting a quote to an order or for production planning. Make any additional configurations in the Siebel Business Application that are required to meet your company’s business needs. For details about setting up the ASIs used by this workflow, see [“Setting Up Quote and Order ASIs” on page 46.](#)

- **Query Order Status.** Typically, a company will receive information about the status of orders at regular intervals from the fulfillment system. However, when a sales person talks with a customer about the status of an order, they want to make sure that they present the most current information. In order to do so, they can click the Get Status button on an order. This calls the Get Order Status ASI workflow, which retrieves information from the back-office system. For details about setting up the ASIs used by this workflow, see [“Setting Up Quote and Order ASIs” on page 46.](#) For details about the user’s experience of using the submit order functionality, see [“Submitting an Order” on page 194.](#)

- **Updating Order Status.** When the status of an order is updated in a back-office system, it can replicate that information in the Siebel Business Application to keep the two systems synchronized. This is done by using the Siebel Order ASI with a method of Update or Sync, and can be set up as a Web service. For details about using the Siebel Order ASI, see [“Setting Up Quote and Order ASIs” on page 46](#).

Figure 1 shows the points in the order process where ASI integration occurs.

Create, Submit, and Check Status Order Process with ASI Integration Points

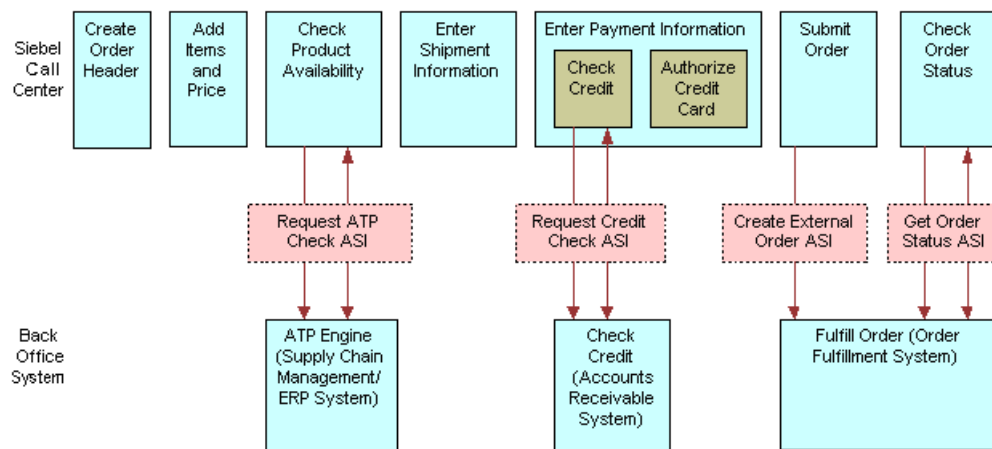


Figure 1. ASI Integration Points in the Ordering Process

You must set up the ASIs shipped with Siebel Order Management before they can be used. This chapter provides the procedures that you must perform to set up these ASIs. It also describes the ways that Siebel Order Management invokes ASIs, and documents the workflows that you may want to modify to change the ways that ASIs are invoked.

For general information about ASIs, see *Siebel Application Services Interface Reference*.

Setting Up Quote and Order ASIs

Two pairs of ASIs are used during these four order management processes:

- Submitting orders
- Importing quotes and orders
- Updating quote and order status
- Querying orders

These ASI pairs are:

- Siebel Quote (inbound) and External Quote (outbound)
- Siebel Order (inbound) and External Order (outbound)

Process of Integrating Quotes and Orders with Back-Office Applications

To set up real-time submission of quotes and orders with your back-office system, perform the following tasks:

- [“Setting Up Web Services for Quote and Order ASIs” on page 47](#)
- [“Activating Workflows for Integration of Quotes and Orders” on page 49](#)

NOTE: If you want to add to or change the fields that are sent to the back-office system, you can customize the integration objects for each ASI. For more information, see *Siebel Application Services Interface Reference*.

Setting Up Web Services for Quote and Order ASIs

To set up Web services, you must set up both outbound and inbound Web services for the Quote and Order ASIs. The following procedures show you the steps required for each of these.

This task is a step in [“Process of Integrating Quotes and Orders with Back-Office Applications” on page 47](#).

Use the following procedure to set up the outbound Order Web service.

To set up the outbound Order Web service

- 1 Navigate to Administration - Web Services screen, then the Outbound Web Services view.
- 2 In the Outbound Web Services list, create a query to display the record with *External Order* in the Name field.
- 3 Verify that the fields in the Outbound Web Services list match those in the following table.

Namespace	Name	Status
http://siebel.com/asi/	External Order	Active

- 4 In the Service Ports list, click New, and enter the following values in the fields of the new record.

Field	Comments
Name	Enter a name for the port.
Port Type	Enter External Order.

Field	Comments
Transport	Select from the drop-down list. If you want to set up testing, for example when you are customizing applets or extending the ASI, select Local Business Service.
Address	When you select a transport, the field will be populated with a template address. Edit the address based on where you are sending the data.
Binding	If a SOAP header is expected by the receiving application, select SOAP_RPC.

Use the following procedure to set up the outbound Quote Web service.

To set up the outbound Quote Web service

- 1 In the Outbound Web Services list, create a query to display the record with *External Quote* in the Name field.
- 2 Verify that the fields in the Outbound Web Services list match those in the following table.

Namespace	Name	Status
http://siebel.com/asi/	External Quote	Active

- 3 In the Service Ports list, review the information in the fields for the External Quote service port and make any changes required for your system.

Use the following procedure to set up the inbound Order Web service.

To set up the inbound Order Web service

- 1 Navigate to the Administration - Web Services screen, then the Inbound Web Service view.
- 2 In the Inbound Web Service list, create a query to display the record *Siebel Order* in the Name field.
- 3 Verify that the fields in the Inbound Web Services list match those in the following table.

Namespace	Name	Status
http://siebel.com/asi/	Siebel Order	Active

- 4 In the Service Ports list, review the information in the fields for the Siebel Order service port and make any changes required for your system.
- 5 In the Operations list, review the information shown and make any changes required for your system.

Use the following procedure to set up the inbound Quote Web service.

To set up the inbound Quote Web service

- 1 Navigate to the Administration - Web Services screen, then the Inbound Web Services view.
- 2 In the Inbound Web Service list, create a query to display the record *Siebel Quote* in the Name field.
- 3 Verify that the fields in the Inbound Web Services list match those in the following table.

Namespace	Name	Status
http://siebel.com/asi/	Siebel Quote	Active

- 4 In the Service Ports list, review the information in the fields for the Siebel Quote service port and make any changes required for your system.
- 5 In the Operations list, review the information shown and make any changes required for your system.

Activating Workflows for Integration of Quotes and Orders

In Siebel Tools, you must activate the following workflow processes used for real-time integration of quotes and orders:

- Get Order Status ASI
- Submit Order ASI
- Submit Quote ASI

For more information about activating workflows, see *Siebel Business Process Designer Administration Guide*.

This task is a step in "[Process of Integrating Quotes and Orders with Back-Office Applications](#)" on page 47.

ASI Workflows for Quotes and Orders

This section documents the workflow processes that are used to invoke the ASIs for quote and order processes. It is not necessary to modify these workflows, but you can modify them to suit your business model.

Get Order Status ASI

This workflow queries the outside system to retrieve the latest information on the order. It returns the new information and synchronizes the order on the current system.

- **Query Order By Id:** Queries for the order on the current system using the object id. Returns an order property set containing all the order information.
- **Isolate Integration ID:** In the next step, the workflow will use a query by example. Query by example will take the property set and look for an order with the same exact values for the fields in the property set. If the order has changed on the outside system, those values will no longer match. The workflow needs to query by a value that will not change, the integration ID. Isolate Integration Id takes in a property set and removes all the fields, except the integration ID
- **External Order Proxy:** Using the property set, which only has an integration ID, this step queries by example on the outside systems. After it finds the order with that integration ID, it returns an order property set containing all the order information.
- **Synchronize Order:** Takes the order property set returned by the previous step and synchronizes it with the order in the current system.

Submit Order ASI

This workflow submits the order to the outside system to synchronize the information between the two systems.

- **Query Order By Id:** Queries for the order on the current system using the object id. Returns an order property set containing all the order information.
- **External Order Proxy:** Calls insert on the outside system, passing in the order property set. This step returns an order property set, which will contain any changes the outside system made to the order.
- **Synchronize Order:** Takes the order property set returned by the previous step and synchronizes it with the order in the current system.

Submit Quote ASI

This workflow submits the quote to the outside system to synchronize the information between the two systems.

- **Query For Quote By Id:** Queries for the quote on the current system using the object id. Returns a quote property set containing all the quote information.
- **External Quote Proxy:** Calls insert on the outside system, passing in the quote property set. This step returns a quote property set, which will contain any changes the outside system made to the quote.
- **Synchronize Quote:** Takes the quote property set returned by the previous step and synchronizes it with the quote in the current system.

5

Integrating Order Management with Third-Party Product Availability Applications

This chapter tells you how to integrate the Siebel Business Application with an external, availability-to-promise (ATP) engine to provide customers with information about availability of products they wish to order. It includes the following sections:

- [“About Third-Party Product Availability Applications” on page 51](#)
- [“Process of Setting Up Third-Party Product Availability Applications” on page 51](#)

About Third-Party Product Availability Applications

Product availability information is stored in third-party ATP systems. When a salesperson clicks the Inquire button, or when a customer clicks a Check Availability button, the product availability information is passed to the Siebel Business Application by a third-party product availability fulfillment engine, also known as an availability-to-promise (ATP) engine. Siebel Order Management displays whatever data the ATP engine returns.

Integration with the product availability fulfillment engine uses the business service named External ATP Check. In addition it uses a specific, prebuilt Application Services Interface (ASI) named ATP Check. Some configuration is required to set up this integration.

Siebel Application Service Interface (ASI) is used to integrate order management with third-party product-availability applications. For an overview of how ASIs are used for integrating order management, see [“About ASIs for Order Management” on page 44](#). For general information about how to set up, use, and modify integrations based on ASIs, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.

Process of Setting Up Third-Party Product Availability Applications

To set up the use of third-party product availability-to-promise systems, you must perform the following tasks:

- 1 [“Checking Availability Fulfillment Methods” on page 52](#)
- 2 [“Setting the ATP Action Parameter in Quote and Order Business Components Properties” on page 52](#)
- 3 [“Verifying the External ATP Check Business Service User Properties” on page 54](#)
- 4 [“Configuring Web Services for Availability to Promise” on page 54](#)

When setting up the use of third-party product availability-to-promise systems, you can perform the following optional tasks:

- 5 [“Preventing Rollup of Availability Information” on page 56](#)
- 6 [“Extending the ASI for Availability to Promise” on page 57](#)
- 7 [“Extending Returned Data for Availability to Promise” on page 58](#)
- 8 [“Customizing UI Terms for Availability to Promise” on page 59](#)

When setting up the use of third-party product availability-to-promise systems, you can perform the following optional task that applies only to Siebel eSales:

- 9 [“Requiring User Registration for Availability to Promise” on page 59](#)

For more information about how to set up, use, and modify integrations based on ASIs, see *Siebel Application Services Interface Reference*.

For information about the employee end user’s experience in using the availability-to-promise features, see [“Checking Availability to Promise \(ATP\)” on page 152](#).

Checking Availability Fulfillment Methods

For the integration to work, you must check that your ATP engine supports the Inquire, Reserve, and Unreserve methods. If your ATP engine refers to these methods with different terms, you may need to do some configuration to map the method names.

For customers to check availability using Siebel eSales, you must find a method that is supported by your ATP engine and that checks availability without reserving it. The Inquire method is one possible example. You may want to check other supported methods, such as Reserve and Unreserve, to see how you can extend your availability checking function.

This task is a step in [“Process of Setting Up Third-Party Product Availability Applications” on page 51](#).

Setting the ATP Action Parameter in Quote and Order Business Components Properties

Employees launch product availability from a Quote or Order business component at either the header level or the line level. The Quote or Order business component defines the method to be used to invoke the ATP Check ASI. This method is one of those listed in [Table 8 on page 53](#), depending on whether the user clicked a button to Inquire, Reserve, or Unreserve.

Customers using Siebel eSales launch product availability from the Quote business component. The Quote business component defines the method ATPInquireAll, which invokes the ATP Check ASI.

You must make sure that the value of the ATP Action Parameter in the user property defining the ATPInquireAll method in both the Quote and Order business components matches the commands expected by the ATP engine.

However, if your ATP engine expects different commands, you can change them in Siebel Tools.

Table 8. Preconfigured ATP Action Parameter Settings

User Interface Element	BusComp	Method Name	ATP Action
Inquire All button, Quote or Order header	Quote/Order Entry - Orders	ATPInquireAll	Inquire
Inquire button, Quote or Order Line Items list	Quote Item/Order Entry - Line Items	ATPInquire	Inquire
Reserve All button, Quote or Order header	Quote/Order Entry - Orders	ATPReserveAll	Reserve
Reserve button, Quote or Order Line Items list	Quote Item/Order Entry - Line Items	ATPReserve	Reserve
Unreserve All button, Quote or Order header	Quote/Order Entry - Orders	ATPUnReserveAll	Unreserve
Unreserve button, Quote or Order Line Items list	Quote Item/Order Entry - Line Items	ATPUnReserve	Unreserve

The following procedure shows you how to make changes to the ATP Action parameter for the method ATPInquireAll. You can use these as a model to make changes to any of the other ATP methods, as appropriate.

NOTE: If the middleware handles this mapping, then you do not need to change this ATP Action Parameter. For example, if the middleware knows that ATP Action = Inquire in your Siebel Business Application, and that ATP Action = Check in your fulfillment engine, the middleware provides the mapping.

This task is a step in [“Process of Setting Up Third-Party Product Availability Applications”](#) on page 51.

To set the business component user properties for the Quote business component

- 1 In Siebel Tools, select the Quote business component.
- 2 Select Business Component User Prop.
- 3 In the Value field, query for *ATP*.

This returns all of the Quote business component user properties that are related to the ATP functionality.
- 4 For the user property that includes the ATPInquireAll method, edit the ATP Action parameter so that it exactly matches the command expected by the ATP engine. The default value is Inquire.

Use the following procedure to set the business component user properties for the Order business component.

To set the business component user properties for the Order business component

- 1 In Siebel Tools, select the Order business component.
- 2 Select Business Component User Prop.
- 3 In the Value field, query for *ATP*.
This returns all of the Order business component user properties that are related to the ATP functionality.
- 4 For the user property that includes the ATPInquireAll method, edit the ATP Action parameter so that it exactly matches the command expected by the ATP engine. The default value is Inquire.

Verifying the External ATP Check Business Service User Properties

You must verify the External ATP Check business service user properties. This task is a step in [“Process of Setting Up Third-Party Product Availability Applications” on page 51](#).

To verify the External ATP Check business service user properties

- 1 In Siebel Tools, select the External ATP Check business service.
- 2 Select Business Service User Prop.
- 3 Verify that the Names and Values of the User Properties match those in the following table.

Name	Value
siebel_port_name	Default
siebel_web_service_name	External ATP Check
siebel_web_service_namespace	http://siebel.com/asi/

Configuring Web Services for Availability to Promise

Web services are used to direct the inbound and outbound messages to and from:

- The third-party ATP engine
- A demonstration script, which can be used to test your integration setup
- A middleware or integration server that will integrate with your fulfillment engine

You must make sure that the Web services are correctly configured. This task is a step in [“Process of Setting Up Third-Party Product Availability Applications” on page 51](#).

To configure the Web services

- 1 In your Siebel Business Application, navigate to the Administration - Web Services screen, then the Outbound Web Services view.
- 2 Select the row with External ATP Check in the Name field.
- 3 Verify that the fields in the Outbound Web Services list match those in the following table.

Namespace	Name	Status
http://siebel.com/asi/	External ATP Check	Active

- 4 In the Service Ports list, click New, and enter the following values in the fields of the new record.

Field	Comments
Name	Enter <i>Default</i> .
Service Display Name	Enter <i>External ATP Check</i> .
Transport	Select from the drop-down list. If you want to set up testing, for example when you are customizing applets or extending the ASI, select Local Business Service.
Address	When you select a transport, the field will be populated with a template address. Edit the address based on whether you are sending the data to middleware or the ATP engine. If you want to set up testing, for example when you are customizing applets or extending the ASI, enter ATP ASI Test. For more information, see "Using the ATP ASI Testing Script" on page 55 .
Binding	If a SOAP header is expected by the receiving application, select SOAP_RPC. If you are using ATP ASI Test, select Property Set.

For more information about configuring Web Services and setting up demonstration scripts, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.

Using the ATP ASI Testing Script

The ATP ASI test is a testing script that simulates a simple fulfillment engine. It writes the output and response to an XML file on the server machine. By default the script writes the output and the response to `${SIEBEL_HOME}/bin`, for example, `D:\Siebel\bin`. It writes an output file called `ATPOutput.xml`. This file represents what you would be sending to your middleware or fulfillment engine. Then the script generates a real-time response and sends the XML back to the Web service. The XML response that is generated is written into a file called `ATPFinished.xml`, which you can see in the file system.

This testing infrastructure allows you to analyze what will be sent to the middleware and what the Siebel Business Application is expecting back, and allows you to test your user interface.

Preventing Rollup of Availability Information

Product availability information is displayed for:

- The entire quote or order
- The quote or order line items
- The scheduled line items

The following information is preconfigured to roll up:

- Available status, date, and quantity are rolled up from the promised lines to the quote or order lines.
- Available status and date are rolled up from the quote or order lines to the quote or order header.

If your availability fulfillment engine only returns promised schedule lines and does not roll up this data to the line or the header, the preconfigured behavior will provide you with a rollup of the data.

However, if your fulfillment engine already calculates this rollup, or if you do not want to roll up these fields, you may want to turn off this behavior.

Following are some examples of the preconfigured rollup of availability information:

- **Dates.** The latest date is rolled up at the parent level. For example, if line 1 has an available date of 7/15/04 and line 2 has an available date of 7/23/04, the available date for the order is set to 7/23/04.
- **Status.** If all lines have an ATP status of Available, the order also has a status of Available. However, if one of the lines has a different status, the order status is kept blank.
- **Quantity.** If Schedule line 1 has an availability quantity of 10, Schedule line 2 has an available quantity of 20, and both lines have the same ATP status of Available, then the quantity rolled up is the sum of both quantities (30).

NOTE: Rollup only occurs on quantity and date when the status of the promised line or the status of the line item is Available or Reserved.

This task is a step in [“Process of Setting Up Third-Party Product Availability Applications”](#) on page 51.

To turn off computation of the availability summary date

- 1 In Siebel Tools, select the ATP business service.
- 2 Select Business Service User Prop.
- 3 Select the Rollup Availability user property, and change the value from Y to N.

Extending the ASI for Availability to Promise

If you want to extend the ASI, you must add fields to:

- The External Integration object called ATP Check Interface
- These Internal Integration objects:
 - ATP Check Interface Request - Quotes
 - ATP Check Interface Request - Orders
 - ATP Check Interface Response - Quotes
 - ATP Check Interface Response - Orders

This will create the necessary mapping between the ATP interface structure and the Siebel Quote and Order business components.

NOTE: If you make changes to these objects, the names of the fields in the Internal and External integration objects must match.

If you add a field, make sure that the names of the fields in the Internal and External integration objects match. For example, if you want to add the field Account DUNS# that maps on quote to Account DUNS#-quote and on order to Account DUNS#-order, you would do so as shown in [Table 9](#).

Table 9. Naming Fields

Object Name	Integration Component Field Name	Integration Component External Name
ATP Check Interface	Account DUNS#	none
ATP Check Interface Request - Quotes	Account DUNS#	<your mapping of Account DUNS # to the Quotes Buscomp>
ATP Check Interface Request - Orders	Account DUNS#	<your mapping of Account DUNS # to the Orders Buscomp>

If this is a field that you do not want the fulfillment engine to be able to modify, such as Ship To Address Id, add the NoUpdate Field user property to the internal response integration objects, as follows:

- ATP Check Interface Response - Quotes
 - Integration Component Field:
 - Name: Ship To Address Id
 - External Name: <your mapping of Ship To Address Id to the Quotes Buscomp>
 - Integration Component Field User Property:
 - Name: NoUpdate
 - Value: Y

■ ATP Check Interface Response - Orders

Integration Component Field:

Name: Ship To Address Id

External Name: <your mapping of Ship To Address Id to the Orders Buscomp>

Integration Component Field User Property:

Name: NoUpdate

Value: Y

For information about how to extend the integration object, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.

This task is a step in ["Process of Setting Up Third-Party Product Availability Applications"](#) on page 51.

To prevent an added field from being modified by the fulfillment engine

- 1 In Siebel Tools, select Integration Object in the Object Explorer.
- 2 Select the integration object ATP Check Interface Response - Quotes.
- 3 Expand Integration Object in the Object Explorer, and select Integration Component.
- 4 Select the Quote integration component.
- 5 Expand Integration Component in the Object Explorer and select Integration Component Field.
- 6 Select the name of the added field.
- 7 Expand Integration Component Field in the Object Explorer and select Integration Component Field User Prop.
- 8 Set the Name of the Integration Component Field User Property to NoUpdate.
- 9 Set the Value to Y.

Extending Returned Data for Availability to Promise

For information about how to extend the data that is received from the third-party inventory management system, including data about products that are expected to be manufactured, see *Siebel Application Services Interface Reference*.

This task is a step in ["Process of Setting Up Third-Party Product Availability Applications"](#) on page 51.

Customizing UI Terms for Availability to Promise

You can change the following terms in the user interface to more precisely reflect the type of data expected by, and returned by, your particular product availability fulfillment engine.

- **Requested Date.** This could be either the date on which the customer wants to receive the product or the date on which the customer wants the seller to ship the product.
- **Available Date.** This could be either the date that the customer will receive the product or the date that the product will be shipped.

These two fields are designed to work together, reflecting parallel information.

This task is a step in [“Process of Setting Up Third-Party Product Availability Applications”](#) on page 51.

Requiring User Registration for Availability to Promise

Siebel eSales does not require the customer to register on the Web site before checking product availability. However, you can configure the logic behind the Check Availability button to require this by:

- Hiding the Check Availability button. In this case, anonymous users will not see the button unless they explicitly log in.
- Adding the Explicit Login parameter to the view.

This task applies to customers checking product availability using Siebel eSales. It does not apply to employees checking product availability.

This task is a step in [“Process of Setting Up Third-Party Product Availability Applications”](#) on page 51.

To hide the Check Availability button

- 1 In Siebel Tools, lock the eSales - Quote project.
- 2 In the Object Explorer, click Applet and select Quote Form Applet - Current (eSales).
- 3 In the Object Explorer, click Applet User Prop.
- 4 Create a new user property called Hide Control 4 with the following value:
`'ButtonInquireAll','GetProfileAttr("Is Anonymous") = "TRUE"'`

Use the following procedure to add the Explicit Login parameter to the ATP Fulfillment View (eSales).

To add the Explicit Login parameter to the ATP Fulfillment View (eSales)

- 1 In Siebel Tools, lock the ATP project.
- 2 In the Object Explorer, click View and select ATP Fulfillment View (eSales).
- 3 Right-click on the Views bar at the top of the list and select Columns Displayed.
- 4 In the Available Columns box, select Explicit Login, move it to the Displayed Columns box, and click OK.

- 5 Scroll to the right of the view and check the Explicit Login column for ATP Fulfillment View (eSales).
- 6 Check in and compile the projects.

6

Integrating Order Management with Third-Party Credit-Check Applications

This chapter discusses how to integrate order management with third-party credit-check applications. It includes the following sections:

- [“About Third-Party Purchase Order Credit Checking Applications” on page 61](#)
- [“Process of Setting Up Purchase Order Credit Checking Applications” on page 62](#)

About Third-Party Purchase Order Credit Checking Applications

Before completing an order for products or services in Siebel eSales, your company may want to assess whether the customer has a credit rating that is good enough for you to sell to them. Different applications are used to perform credit checks depending on the method of payment.

- For business customers paying with purchase orders, a back-office, third-party accounts receivable or credit management application does credit checks on the customer account. This chapter describes how to set up these applications.
- For customers paying with a credit card, a third-party payment application does credit checks. This feature is available in customer applications. For more information about third-party payment applications, see *Siebel eSales Administration Guide*.

Third-party accounts receivable or credit management applications use logic to make a credit determination based on your company's previous history with the customer account and other credit data.

Integration with third-party credit checking applications uses a specific, prebuilt Application Services Interface (ASI) named External Credit Check. Some configuration is required to set up this integration, as described in this chapter.

For information about how to extend these integration objects, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.

Sales representatives or call center agents can make purchase order credit checks for a quote or order. In the order process, this is done at the payment line level, when the user clicks the Credit Check button in an order. In the quote process, it is done at the header level, when the user chooses the Verify menu option in a quote. Two workflows directly control the process of checking the credit status of business accounts. These are:

- Credit Check - Quotes
- Credit Check - Orders

In Siebel eSales, credit checks are performed as part of the check-out process after the customer clicks the Check Out button. The following two workflows directly control the process of checking the credit status of business accounts in Siebel eSales:

■ eSales - Authorize Order Process

■ Credit Check - Quotes

For more information about the customer check-out process, including the details of these workflows, see *Siebel eSales Administration Guide*.

Siebel Application Service Interface (ASI) is used to integrate order management with third-party credit-check applications. For an overview of how ASIs are used for integrating order management, see [“About ASIs for Order Management” on page 44](#). For more information about to how to set up, use, and modify integrations based on ASIs, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.

Process of Setting Up Purchase Order Credit Checking Applications

To set up Purchase Order Credit Checking Applications, you must perform the following tasks:

- 1 [“Verifying the External Credit Check ASI User Properties” on page 62](#)
- 2 [“Configuring Web Services for Purchase Order Credit Checking Applications” on page 63](#)
- 3 [“Activating the Workflows for Purchase Order Credit Checking Applications” on page 64](#)

To set up Purchase Order Credit Checking Applications, you can perform the following optional tasks:

- 4 [“Modifying User Properties for Purchase Order Credit Checking Integration” on page 64](#)
- 5 [“Turning Off Credit Checking” on page 65](#)
- 6 [“Customizing When Credit Checks Are Performed” on page 65](#)
- 7 [“Changing the Credit Auto-Approval Limit For Accounts” on page 66](#)
- 8 [“Skipping Credit Checks For an Account” on page 66](#)
- 9 [“Restricting Which Employees Can Administer Credit Checking” on page 66](#)
- 10 [“Extending the ASI for Credit Check Interface Request” on page 67](#)

NOTE: If you modify any lists of values such as order types or purchase order payment methods, be sure to review the workflows processes in Credit Check - Quotes and Credit Check - Orders to verify that the application logic to determine whether to call credit check is still correct.

For more information about to how to set up, use, and modify integrations based on ASIs, see *Siebel Application Services Interface Reference*.

Verifying the External Credit Check ASI User Properties

You must verify the External Credit Check ASI user properties. This task is a step in [“Process of Setting Up Purchase Order Credit Checking Applications” on page 62](#).

To verify the External Credit Check ASI user properties

- 1 In Siebel Tools, select the External Credit Check business service.
- 2 Select Business Service User Prop.
- 3 Verify that the Names and Values of the User Properties match those in the following table.

Name	Value
siebel_port_name	Default
siebel_web_service_name	External Credit Check
siebel_web_service_namespace	http://siebel.com/asi/

Configuring Web Services for Purchase Order Credit Checking Applications

Web services are used to direct the inbound and outbound messages to and from:

- The third-party credit checking application
- A demonstration script that can be used to test your integration setup
- A middleware or integration server that will integrate with your fulfillment engine and accounts receivable system

You must make sure that the Web services are correctly configured.

This task is a step in [“Process of Setting Up Purchase Order Credit Checking Applications”](#) on page 62.

To configure the Web services

- 1 Navigate to the Administration - Web Services screen, then the Outbound Web Services view.
- 2 Select the row with External Credit Check in the Name field.
- 3 Verify that the fields in the Outbound Web Services list match those in the following table.

Namespace	Name	Status
http://siebel.com/asi/	External Credit Check	Active

- 4 In the Service Ports list, click New, and enter the following values in the fields of the new record.

Field	Comments
Name	Enter a name for the port.
Port Type	Enter <i>External Credit Check</i> .

Field	Comments
Transport	Select from the drop-down list. If you want to set up testing, for example when you are customizing applets or extending the ASI, select Local Business Service.
Address	When you select a transport, the field will be populated with a template address. Edit the address based on whether you are sending the data to middleware, the Credit Check application, and so on. If you want to set up testing, enter Credit Check ASI Test.
Binding	If a SOAP header is expected by the receiving application, select SOAP_RPC. If you are using Credit Check ASI Test, select Property Set.

Activating the Workflows for Purchase Order Credit Checking Applications

For employee credit checking, you must activate the following workflow processes:

- Credit Check - Quotes
- Credit Check - Orders

For customer credit checking in Siebel eSales, you must activate the following workflows:

- eSales - Authorize Order Process
- Credit Check - Quotes

For information about activating workflows, see *Siebel Business Process Designer Administration Guide*. For more information about configuring Web Services and setting up demonstration scripts, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.

This task is a step in ["Process of Setting Up Purchase Order Credit Checking Applications"](#) on page 62.

Modifying User Properties for Purchase Order Credit Checking Integration

Some of the user properties of the Credit Check Service business service are used to map integration object fields to their related business component fields. For example, the BC_CREDIT_DATE user property has a value of Credit Check Status As Of Date, which is the name of a business component field on the Quotes and Payments business components. The PROP_SET_CREDIT_DATE user property has a value of Credit Status As Of, which is the name of an integration object field. Together, these values show that the data in the Credit Status As Of integration object field is moved to the Credit Check Status As Of Date business component field. You should not need to modify these values.

You will need to modify the value of the ERROR_STATUS_CODE user property if it does not match the value of the error code returned from the middleware.

To modify the error status code

- 1 In Siebel Tools, select Business Service in the Object Explorer.
- 2 Query for the Credit Check Service business service.
- 3 Select Business Service User Prop in the Object Explorer.
- 4 Change the value of the ERROR_STATUS_CODE user property to match the middleware value.

This task is a step in [“Process of Setting Up Purchase Order Credit Checking Applications”](#) on page 62.

Turning Off Credit Checking

For Siebel eSales, you can turn off credit checking by removing the Credit Check subprocess step from the eSales - Authorize Order Process workflow.

For employee applications, in a quote, credit checking is part of the verify functionality. You can turn it off by changing the Credit Check user property in the Quotes business component. When the Credit Check user property is set to N instead of Y, the verify function will not perform the credit check.

You can also pick what workflow you want to call to execute the credit check by going to the Business Component screen, then the Quote view, and changing the following Business Component User Properties:

- For the Credit Check user property, change the value from Y to N.
- For the Credit Check Workflow user property, change the value from Credit Check Quotes to the workflow you want to use.

For employee applications, in an order, the user performs the credit check by clicking the Credit Check button. To turn off credit check for orders, you can either modify the Credit Check - Order workflow or remove the button from the Payment Detail - Purchase Order applet.

This task is a step in [“Process of Setting Up Purchase Order Credit Checking Applications”](#) on page 62.

Customizing When Credit Checks Are Performed

A credit check does not need to be performed on every quote or order that will be paid for with a purchase order. You can customize when a credit check is performed by modifying the Credit Check - Quotes workflow process and the Credit Check - Orders workflow process.

In the default credit check business processes, credit check will only be performed if all the following conditions apply:

- Payment method is Purchase Order
- The bill-to account's Skip Credit Check flag is Off
- The purchase order amount is greater than the bill-to account's Credit Auto Approval Limit amount

In addition, credit check is not applicable for orders of type RMA and Internal Order, so it will be skipped.

CAUTION: If you want to modify the Credit Check - Quotes workflow process, it is important to know that this workflow process is also used by Siebel eSales to create an order. For more information about the impact of this, see the section about this workflow process in *Siebel eSales Administration Guide*. If you want to have different workflows for Quotes and eSales, you will need to create an additional workflow.

This task is a step in [“Process of Setting Up Purchase Order Credit Checking Applications”](#) on page 62.

Changing the Credit Auto-Approval Limit For Accounts

You can change the credit auto-approval limit for accounts in several different ways:

- **Using Siebel Tools.** When your company wants to change the limit for all new accounts, you can change it in Siebel Tools.
NOTE: Making this change in Siebel Tools does not affect previously existing accounts.
- **Using a batch eScript.** If you need to change the value for a large number of account records, you can do so with a batch eScript.
- **Editing the Value for an Account.** To change the limit for a few accounts, you can manually edit the value of the Credit Auto Approval Limit for a specific account in the Account screen, then Credit Profile view.

NOTE: Do not confuse the Credit Auto Approval Limit field with the PO Auto Approval Limit field.

This task is a step in [“Process of Setting Up Purchase Order Credit Checking Applications”](#) on page 62.

Skipping Credit Checks For an Account

End users can skip automatic credit checking for particular accounts by changing the value of the Skip Credit Check field. This field is displayed in the Account screen, Credit Profile view. When this check box is checked, it indicates that credit checks should be skipped for the account.

This task is a step in [“Process of Setting Up Purchase Order Credit Checking Applications”](#) on page 62.

Restricting Which Employees Can Administer Credit Checking

There are two ways to restrict which employees can administer credit checking on accounts:

- Create a read-only version and a read-write version of the Account Detail - Credit Profile view. Give employees who should administer credit checking access to the read-write view. Give employees who should not administer credit checking access to the read-only view.
- Add a rule or logic to restrict who can update fields related to credit checking. For example, only allow an account's primary sales representative to update these fields.

For more information about restricting employees' access to features, see *Security Guide for Siebel Business Applications*.

This task is a step in ["Process of Setting Up Purchase Order Credit Checking Applications"](#) on page 62.

Extending the ASI for Credit Check Interface Request

If you want to extend the ASI, you must add fields to:

- The following external and internal interfaces:
 - Credit Check Interface Response
 - Credit Check Interface Request
- The following internal objects:
 - Credit Check Interface Request - Quote
 - Credit Check Interface Request - Order

This will create the necessary mapping between the Credit Check interface structure and the Siebel Quote and Order business components.

If you add a field, make sure that the names of the fields in the Internal and External integration objects match. For example, if you want to add the field *Priority* that maps on quote to Priority-quote and on order to Priority-order, you would set up the names as indicated in [Table 10](#).

Table 10. Naming Fields

Object Name	Name	External Name
Credit Check Interface Request	Priority	none
Credit Check Interface Request - Quotes	Priority	< Mapping of the Priority field to the correct field on the Quotes Buscomp >
Credit Check Interface Request - Orders	Priority	< Mapping of the Priority field to the correct field on the Orders Buscomp >

For information about how to extend the integration object, see *Integration Platform Technologies: Siebel Enterprise Application Integration*.

This task is a step in ["Process of Setting Up Purchase Order Credit Checking Applications"](#) on page 62.

7

Integrating Order Management with Third-Party Taxation Applications

This chapter describes how to set up and use Taxware applications. It contains the following sections:

- “About Third-Party Taxation Applications” on page 69
- “Installing Taxware Applications on Windows” on page 70
- “Setting Up Taxware Applications on Windows” on page 71
- “Installing and Setting Up Taxware Applications on UNIX” on page 71
- “Enabling Tax Calculation” on page 71
- “Taxing Customizable Products” on page 73
- “Taxware Integration with Siebel eSales” on page 73
- “Customizing Taxware Integration” on page 81
- “Handling Unicode Conversion Errors” on page 84

About Third-Party Taxation Applications

Taxes are calculated on quotes as part of the eSales - Complete Checkout Process workflow. The Calculate Taxes step calls the Tax Calculator business service, which uses the Taxware Adapter Service business service to make a call to Taxware. The calculated sales tax from Taxware is copied to the quote. When the quote is turned into an order, the tax information is copied to the order.

NOTE: The preconfigured integration allows tax calculations for the many countries supported by Taxware. For the latest list of supported countries, see www.taxware.com.

Taxware Applications

Taxware International is a third-party service used to calculate the sales tax on orders. Siebel eSales is designed to work with the following Taxware modules:

- **Sales/Use.** This module calculates sales and use taxes on purchases made in the United States and Canada. You can configure Sales/Use for product-specific taxation, using the Taxware Sales/Use Toolkit to map the product's part number in the Siebel Business Application to its Tax Code in Sales/Use.
- **WORLD TAX.** This module calculates sales and use taxes on purchases made outside the United States and Canada. You can configure WORLD TAX for product-specific taxation, using the Taxware WORLD TAX Toolkit to map the product's part number in the Siebel Business Application to its Commodity/Service Code in WORLD TAX.

- **STEP.** This module enables sales tax exemptions and works in conjunction with the Sales/Use module. A Siebel eSales customer is exempt from sales tax if the Siebel account with which the customer is associated has a tax certificate lodged in the STEP module. You do this by entering the Siebel account ID (row ID) in the STEP Customer ID field on the STEP certificate entry form.
- **Universal Tax Link (UTL).** UTL integrates external applications with the Sales/Use and WORLDTAX modules through a common gateway.
- **VERAZIP.** Used for address verification, this module matches state, ZIP Code, city, and county information to make sure that an address is correct and complete, so that the Sales/Use Tax System can locate the correct taxing jurisdiction.

For more information, see your Taxware documentation.

NOTE: A product's part number can be found in the Products screen of your Siebel Business Application. You find the row ID of an account by clicking the menu button and selecting About Record with the account selected in the Accounts screen.

Installing Taxware Applications on Windows

Siebel Business Applications support the use of Taxware software on the Windows NT and Windows 2000 operating systems.

The tasks for installing Taxware applications on Windows are as follows:

- Installing Sales/Use on Windows
- Installing STEP on Windows
- Installing UTL on Windows
- Installing WORLDTAX on Windows
- Setting up the Windows environment

NOTE: The drive on which Taxware applications are installed should have at least 1 GB of free disk space. Over time, the sizes of Taxware applications increase as log files and tax certificates are generated.

For information on installing Taxware applications, see the Taxware documentation. For information on which versions of Taxware are supported by Siebel Business Applications, see *Siebel System Requirements and Supported Platforms* on Oracle Technology Network.

Setting Up Taxware Applications on Windows

After installation, you must do certain tasks, including setting an administrator user name and password, checking environment variables, loading files, and putting your company information into the system.

The tasks for setting up Taxware applications you installed on Windows are as follows:

- Setting Up Sales/Use on Windows
- Setting Up STEP on Windows
- Setting Up WORLDTAX on Windows

For information on setting up Taxware applications, see your Taxware documentation.

Installing and Setting Up Taxware Applications on UNIX

Siebel Business Applications support the use of Taxware software on the Solaris and AIX operating systems.

The tasks for installing and setting up Taxware applications on UNIX are as follows:

- Installing Taxware Applications on UNIX
- Setting Up Sales/Use on UNIX
- Setting Up WORLDTAX on UNIX

NOTE: The drive on which Taxware applications are installed should have at least 1 GB of free disk space. Over time, the sizes of Taxware applications increase as log files and tax certificates are generated.

After installation, you must do certain tasks, including setting an administrator user name and password, checking environment variables, loading files, and putting your company information into the system.

For information on installing and setting up Taxware applications, see the Taxware documentation. For information on which versions of Taxware are supported by Siebel Business Applications, see *Siebel System Requirements and Supported Platforms* on Oracle Technology Network.

Enabling Tax Calculation

To use Taxware applications with Siebel eSales, you must set certain parameters for the eSales Object Manager component of the Siebel Server.

This section contains the following topics:

- [“Enabling Tax Calculation with the Sales/Use Tax System” on page 72](#)
- [“Enabling Tax Calculation with WORLDTAX” on page 72](#)

Enabling Tax Calculation with the Sales/Use Tax System

To use the Sales/Use Tax System with Siebel eSales, you need to have company information defined in the Sales/Use Tax System Toolkit and on the Siebel Server.

To enable tax calculation with Sales/Use

- 1 In the Sales/Use Tax System Toolkit, define your Company ID and Company Location, for example SIEBEL and SAN MATEO.
- 2 In your Siebel employee application, navigate to Administration - Server Configuration screen, Servers, Components, and then the Parameters view.
- 3 In the Components list, select eSales Object Manager.
- 4 In the Component Parameters list, set values for the eSales Object Manager parameters listed in the table that follows.

Parameter	Value
Company ID for Sales Tax	Your company's sales tax ID
Company Location for Sales Tax	Your company's sales tax location
Enable Sales Tax	TRUE
Sales Tax Type	Taxware

Enabling Tax Calculation with WORLDTAX

To use the WORLDTAX System with Siebel eSales, you need to have company information defined in the WORLDTAX Toolkit and on the Siebel Server.

To enable tax calculation with WORLDTAX

- 1 In the WORLDTAX Toolkit, define your Company ID and Business Location, for example SIEBEL_FR and FR (France).
- 2 In your Siebel employee application, navigate to Administration - Server Configuration screen, Servers, Components, and then the Parameters view.
- 3 In the Components list, select eSales Object Manager.
- 4 In the Component Parameters list, set values for the eSales Object Manager parameters listed in the table that follows.

Parameter	Value
Company ID for Sales Tax	Your company's sales tax ID
Company Location for Sales Tax	Your company's sales tax location

Parameter	Value
Enable Sales Tax	TRUE
Sales Tax Type	Taxware

- 5 In Siebel Tools, modify the user properties of the Tax - Configuration (Taxware) integration object, shown in the following table.

Integration Object User Property	Value
SHIPFROMCOUNTRY	ISO country code of the ship-from country (for example, FR for France)
WorldTaxInstalled	Y

SHIPFROMCOUNTRY can also be passed dynamically by modifying the Tax Integration (Siebel Quote Output) integration object and the data map to the Tax Integration (Taxware Input) integration object.

Taxing Customizable Products

Tax calculation is more complicated for customizable products because not all product components may need to be taxed. By default, for tax calculation, Siebel eSales submits the price of the product that is rolled up from its components. This means that if some of the component items do not need to be taxed, the tax calculation will be inaccurate.

You have the option of calculating tax at the component level for any customizable product. For information about setting up taxation at the component level, see *Siebel Product Administration Guide*.

Taxware Integration with Siebel eSales

Integrating Siebel eSales with third-party taxation applications involves two business services:

- Tax Calculator. See [“Tax Calculator Business Service” on page 74](#).
- Taxware Adapter Service. See [“Taxware Adapter Business Service” on page 80](#).

Tax Calculator Business Service

The Tax Calculator business service controls the process shown in Figure 2:

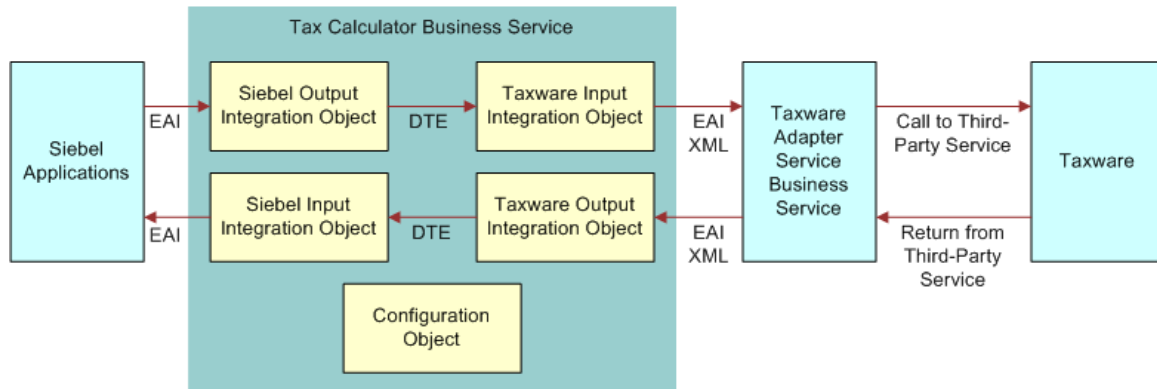


Figure 2. Tax Calculation Process Flow

- Siebel EAI passes data from a quote record and the method name to a Siebel output integration object.
- The Siebel Data Transformation Engine maps the Siebel output integration object to a Taxware input integration object.
- The Siebel EAI XML Converter converts the Taxware input integration object into XML, using the CC XML Converter Business Service, and passes the XML data and method name to the Taxware Adapter Service.
- The Taxware Adapter Service business service processes the data and uses Siebel eScript to call the Taxware API.
- The Taxware Adapter Service gets the calculated sales tax from Taxware using the Taxware API.
- The Taxware Adapter Service formats the sales tax data into an XML string.
- The Siebel EAI XML Converter converts the XML into a Taxware output integration object.
- The Siebel Data Transformation Engine maps the Taxware output integration object to a Siebel input integration object.
- Siebel EAI updates the quote record with the calculated sales tax.

The Tax Calculator business service has one method, CalculateTax, with the following input arguments:

- Siebel to Vendor Map Name
- Vendor to Siebel Map Name

The Tax Calculator business service user properties are used to set the values given in Table 11.

Table 11. Tax Calculator Business Service User Properties

Business Service User Property	Value
Taxware:Adapter Business Service	Taxware Adapter Service
Taxware:Configuration Object	Tax - Configuration (Taxware)
Taxware:Input IntObject Name	Tax Integration (Taxware Input)
Taxware:Output IntObject Name	Tax Integration (Taxware Output)

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

Integration Objects

Integration objects pass static or dynamic values to the business service. The architecture is modular in that you can create and use different integration objects for the same core business service. For example, while the preconfigured integration supports the Quote business component, you can create integration objects to calculate taxes directly on the Order business component.

The Tax Calculator business service uses the following integration objects:

- **Tax - Configuration (Taxware)**. Its user properties are shown in [Table 12](#).

Table 12. Tax - Configuration (Taxware) User Properties

Integration Object User Property	Value	Comments
AUDFILEIND	2	Audit File Indicator: (1, 2, 3, 4) <ul style="list-style-type: none"> ■ 1: Audit File/Suspense File ■ 2: No Record stored on file ■ 3: Suspense File ■ 4: Audit File
EXEMPTUSEFLAG	Y	Exemption Use Flag: (Y, L, P, D, N) <ul style="list-style-type: none"> ■ Y: Call STEP, use default record. ■ L: Call STEP, do not use default record. ■ P: Call STEP, search by product code. ■ D: Call STEP, search by reason code and accept default customer. ■ N: Do not call STEP.
InputIntObjectName	Tax Integration (Taxware Input)	None
OutputIntObjectName	Tax Integration (Taxware Output)	None
SHIPFROMCOUNTRY	US	None
SalesUseInstalled	Y	None
VendorDll	taxcommono	Name of the shared library.
WorldTaxInstalled	N	None

- **Tax Integration (Siebel Quote).** Its integration components are shown in [Table 13](#).

Table 13. Tax Integration (Siebel Quote Integration Components)

Integration Component	Fields
Quote	Account Id
	Currency Code
	Current Quote Ship To City
	Current Quote Ship To Country
	Current Quote Ship To Postal Code
	Current Quote Ship To State
	EAI Error Message
	Quote Number
	Tax Amount
Quote Item	Extended Line Total
	Extended Quantity
	Line Number
	Line Total
	Part Number
	Quantity
	Row Id
	Sales Product Flag
	Sales Service Flag
	Tax Amount
	Tax Subcomponent Flag
	Taxable

- **Tax Integration (Taxware Input).** Its integration components are shown in [Table 14](#).

Table 14. Tax Integration (Taxware Input) Integration Components

Integration Component	Fields That Pass Data from Siebel CRM
Invoice	Currency Code
	Customer Id
	Document Number
	Invoice Number
	Ship To City
	Ship To Country
	Ship To Postal Code
	Ship To State
Invoice Item	Line Number
	Line Total
	Part Number
	Quantity
	Sales Product Flag
	Sales Service Flag
	Ship to City
	Ship to Country
	Ship to Postal Code
	Ship to State

See your Taxware documentation for more fields that can be passed. For information on how to pass more fields to Taxware, see [“Passing Data from Other Fields in the Siebel Database”](#) on [page 81](#).

- **Tax Integration (Taxware Output).** Its integration components are shown in [Table 15](#).

Table 15. Tax Integration (Taxware Output) Integration Components

Integration Component	Fields That Pass Data from Taxware		
Invoice	City Tax Amount County Tax Amount Error Message Federal Tax Amount Invoice Number Secondary City Tax Amount Secondary County Tax Amount Secondary State Tax Amount State Tax Amount		
Invoice Item	City Basis Amount	City Completion Code	City Tax Amount
	City Tax Rate	County Basis Amount	County Completion Code
	County Tax Amount	County Tax Rate	Federal Basis Amount
	Federal Completion Code	Federal Tax Amount	Federal Tax Rate
	General Completion Code	General Completion Code Desc	Line Number
	Secondary City Basis Amount	Secondary City Completion Code	Secondary City Tax Amount
	Secondary City Tax Rate	Secondary County Basis Amount	Secondary County Completion Code
	Secondary County Tax Amount	Secondary County Tax Rate	Secondary State Basis Amount
	Secondary State Completion Code	Secondary State Tax Amount	Secondary State Tax Rate
	State Basis Amount	State Completion Code	State Tax Amount
	State Tax Rate		

See your Taxware documentation for more fields that can be passed.

For more information on integration objects, see *Integration Platform Technologies: Siebel Enterprise Application Integration* and *Using Siebel Tools*.

Data Maps

Data maps are used to map fields in one integration object to another integration object. You can view data maps by navigating to Administration - Integration, then Data Maps.

The data maps used in tax calculation, shown in [Table 16](#), are specified in the call to the Tax Calculator business service.

Table 16. Tax Calculation Data Maps

Name	Source Object Name	Target Object Name
TaxCalculation_QuoteToTaxware	Tax Integration (Siebel Quote)	Tax Integration (Taxware Input)
TaxCalculation_TaxwareToQuote	Tax Integration (Taxware Output)	Tax Integration (Siebel Quote)

For more information on modifying integration objects and data maps, see *Integration Platform Technologies: Siebel Enterprise Application Integration* and *Using Siebel Tools*.

Taxware Adapter Business Service

The Taxware Adapter Service business service:

- Receives input from the Tax Calculator business service in XML format.
- Passes the following information to Taxware:
 - Static information from the Tax - Configuration (Taxware) integration object
 - Dynamic information from the Tax Integration (Taxware Input) integration object
- Receives information back from Taxware.
- Passes XML data back to the Tax Calculator business service.

The Taxware Adapter Service primarily consists of methods written in C++.

Audit File

Taxware uses an Audit File to store transactional information for tax reporting purposes. The Audit File for Sales/Use is a text file that you can edit. There is a special editor for the WORLD TAX Audit File that marks transactions that have been altered.

When calculating taxes in Siebel eSales, set the audit file indicator (AUDFILEIND) to 2 (No Record) because the customer has not yet confirmed the order.

To write to the audit file, a separate call to Taxware should be made from the order. This requires creating Order integration objects and mappings to the Taxware integration objects.

You can set the value for AUDFILEIND by changing the value in the Tax - Configuration (Taxware) integration object user properties. For orders, you can set a separate default value in the data mapping.

Address Verification for Taxware

Completion codes are returned that indicate the status of the process running UTL if one of the following occurs:

- The customer enters an improper city/state/zip combination.
In most cases the completion code appears, indicating that a jurisdiction error occurred, which means something was wrong with the zip/state combination.
- The customer enters a city/state/zip combination that maps to more than one jurisdiction.
Taxware defaults to the most likely match and applies that rate for the transaction. The system generally uses the jurisdiction with the highest population, as rates for heavily populated areas are usually higher than those for areas with less population. However, the default rate used is not always the highest rate out of the possible matches.

Customizing Taxware Integration

You can customize Siebel eSales integration with Taxware. Some examples are passing more fields to Taxware, and performing tax calculations on data in other business components.

This section contains the following topics:

- [“Passing Data from Other Fields in the Siebel Database” on page 81](#)
- [“Passing Data from Fields Not in the Siebel Database” on page 82](#)
- [“Calling the Tax Calculator Business Service from Other Places in Siebel eSales” on page 82](#)
- [“Calling the Tax Calculator Business Service from Other Business Components” on page 83](#)
- [“Using Other Third-Party Taxation Applications” on page 83](#)

Passing Data from Other Fields in the Siebel Database

You can add data fields to those passed to Taxware. You must add the desired field to the appropriate integration objects and map the fields from your Siebel Business Application to Taxware and from Taxware to your Siebel Business Application.

For more information on modifying integration objects, see *Integration Platform Technologies: Siebel Enterprise Application Integration*. For more information on modifying scripts, see *Using Siebel Tools*.

To add a data field

- 1 In Siebel Tools, add the field to the appropriate integration objects.
- 2 Activate the appropriate fields in Tax Integration (Taxware Input) and Tax Integration (Taxware Output) integration objects.
- 3 In your Siebel Business Application, navigate to Integration Administration, then Data Map Editor.
- 4 Update the data map so that the appropriate Siebel data is passed to Taxware and an appropriate result is passed back to the Siebel database.

Passing Data from Fields Not in the Siebel Database

There are three ways to pass data from fields that do not exist in the Siebel database:

- Add the field to the database, add it to the necessary integration object, and then update the data map.
- Set an existing business service user property in the Tax Calculator business service, or create a new one, with a static value for all transactions. These values are read when the business service is initialized.

Any data passed dynamically using the integration objects will overwrite the value in the business service user property for that particular transaction.
- Set a value for an integration object field by setting the value in the data map.

You cannot set a default value for an integration object user property because the Tax Calculator business service does not look for this value at initialization.

Calling the Tax Calculator Business Service from Other Places in Siebel eSales

You can call a business service from any of the following:

- Button, if the applet the button is in is of the CSSBCBase class
- Workflow
- Script, either Siebel eScript or Siebel VB

For information on configuring applications and calling business services, see *Using Siebel Tools*.

To call the Tax Calculator business service

- 1 Use the `GetService()` method to get an instance of the business service.
- 2 Use `Service_InvokeMethod()` to invoke a method of the business service.

- 3 Use SetProperty() to pass values for the business service method arguments that need to be set. See ["Tax Calculator Business Service" on page 74](#) for the arguments of the CalculateTax method of the Tax Calculator Business Service.

Calling the Tax Calculator Business Service from Other Business Components

You can call the Tax Calculator business service from other business components besides Quote, for example Order. You can use the existing Tax Integration (Taxware Input) and Tax Integration (Taxware Output) integration objects for mapping.

To call the Tax Calculator business service from an order

- 1 Choose where to call the business service (button, workflow, or script).
- 2 In Siebel Tools, create integration objects for the Order business component to pass the correct data to the business service.
- 3 In your Siebel employee application, navigate to Administration - Integration, then Data Map Editor.
- 4 Create integration object maps for the Order integration objects and the Taxware integration objects.

Using Other Third-Party Taxation Applications

The default Taxware Adapter Service uses a C++ business service, but an alternative script business service is provided for your use. If you want to use other third-party taxation applications, you must modify the Taxware Adapter Service (eScript) business service or write a new script. The script in the Taxware Adapter Service (eScript) is in Siebel eScript and can therefore be easily rewritten.

For more information on Siebel eScripts, see *Siebel Tools Online Help*. For more information on business services and on debugging scripts, see *Using Siebel Tools*.

NOTE: Before creating the new tax adapter business service, you must create or modify integration objects and data maps for it.

To create a new tax adapter business service

- 1 In Siebel Tools, lock the EAI Tax project.
- 2 Select the Business Service object.
- 3 Select the Taxware Adapter Service (eScript) and copy it.
- 4 Rename the copy, for example New Tax Adapter (eScript).
- 5 Right-click New Tax Adapter (eScript), and then choose Edit Server Scripts.
The server script editor appears.

- 6 Rewrite the desired scripts, such as (declarations) and CallTaxware, and then close the edit window.
- 7 Edit the business service user properties of the Tax Calculator business service to call the New Tax Adapter (eScript) business service. The user properties include the names of the integration objects, the name of the business service, and the name of the configuration object.
- 8 Compile the .srf file, selecting the Locked projects radio button.

Handling Unicode Conversion Errors

Taxware applications use the ASCII codepage. Fields that are passed from Siebel eSales to Taxware applications are therefore converted from Unicode UTF-16 characters to ASCII characters.

This section contains the following topics:

- [“Error Prevention During Codepage Conversion” on page 84](#)
- [“Defining Required Fields in Codepage Conversion” on page 85](#)
- [“Configuring Error Messages in Codepage Conversion” on page 86](#)

For general information about Unicode support in Siebel Business Applications, see *Siebel Global Deployment Guide*.

Error Prevention During Codepage Conversion

If non-ASCII characters are entered into a required field, an error will be generated during the codepage conversion. The error is contained in the Error Message field of the integration object. The order will not be stopped by an error, but an employee will have to manually calculate the tax. It is therefore important to:

- Generate guidance messages and error messages to prevent customers from entering non-ASCII characters in a required field. A list of required fields is given in [Table 17](#).
- Only use lists of values that contain ASCII-compliant values.

Table 17. Fields Required for the Taxware Integration

Taxware Field	Siebel Field	Siebel Location	Required in Sales/Use	Required in WorldTax
Company ID	Company ID	Configuration file	Yes	Yes
Ship-From Country Code	Ship From Country	Business service integration object	Yes	Yes
Destination/Ship-To Country Code	Ship To Country	Database	Yes	Yes
POO Country Code	From Taxware	Business service integration object	Yes	Yes

Table 17. Fields Required for the Taxware Integration

Taxware Field	Siebel Field	Siebel Location	Required in Sales/Use	Required in WorldTax
POA Country Code	From Taxware (Defaulted to the setting in the Taxware Toolkit.)	Business service integration object	Yes	Yes
Line Item Amount	Line Total	Database	Yes	Yes
State Code	Ship To State	Database	Yes	No
Zip Code	Ship To Postal Code	Database	Yes	No
Document Number	Quote #	Database	No	Yes
Tax Point	Set in Adapter business service	Set in Adapter business service	No	Yes
Transaction Type	Set in Adapter business service (value of 1)	Set in Adapter business service (value of 1)	No	Yes
Seller Registration	From Taxware	Set in the Taxware Toolkit. You can pass dynamic data by configuration.	No	Yes
WT Code	Siebel Sales Product Flag (set to 01) or Siebel Service Product Flag (set to 23)	Siebel Sales Product Flag (set to 01) or Siebel Service Product Flag (set to 23)	No	Yes
Commodity Code	Part Number	Database	No	Yes
Primary Currency Code	Currency Code	Database	No	Yes

Defining Required Fields in Codepage Conversion

You can define which fields that are passed to Taxware are required and whether a field is required for WorldTax, Sales/Use, or both applications.

To define which fields are required

- 1 In Siebel Tools, from the View menu, select Options.
- 2 In the Development Tools Options dialog box, select Object Explorer.
- 3 Move Integration Object to the right pane of the dialog box and click OK.

- 4 Select the integration object Tax Integration (Taxware Input).
- 5 Select Integration Component Field from the Object Explorer.
- 6 To make a field required, check the External Required column.
- 7 To make a field required for:
 - Both WorldTax and Sales/User, leave the External DataType as String.
 - WorldTax only, change the External DataType to StringWT.
 - Sales/User only, change the External DataType to StringSU.

Configuring Error Messages in Codepage Conversion

You can perform the following configurations related to codepage errors:

- You can configure the eSales - Complete Checkout Process workflow so that the order process stops when a codepage error is returned by Taxware. The default behavior is to allow the order process to continue.
- You can configure the error messages displayed in the Quote Summary and Order Confirmation views of your employee application. For more information, see *Siebel Order Management Guide*.
- You can change the error messages that are displayed to customers on the Quote Form applet - Summary (eSales) applet and Order Form Applet - Confirmation (eSales) applet of your Siebel eSales Web site.

To configure error messages displayed to customers

- 1 In Siebel Tools, select either the Quote Form - Summary (eSales) applet or Order Form Applet - Confirmation (eSales) applet.
- 2 Select Applet User Prop in the Object Explorer.
- 3 Replace the EAI Error Message text with the text of your choice in the user property that has the value LabelTaxNotCalculated.

8

Creating and Managing Catalogs

This chapter describes how to create and administer catalogs. It includes the following subjects:

- “About Siebel Catalog” on page 87
- “Roadmap for Creating Catalogs” on page 88
- “Process of Setting Up Catalogs” on page 89
- “Process of Setting Up Categories” on page 91
- “Building Catalog Hierarchies” on page 97
- “Example Process of Creating Display Templates for Categories” on page 98
- “About Dynamic Product Catalogs” on page 103

About Siebel Catalog

Siebel catalog provides core functions that are used by a number of applications to organize master data, for both administrative and display purposes. The data types used by some applications are shown in [Table 18](#).

Table 18. Applications That Use Catalog Functions

Application	Master Data Type
Siebel eSales	<ul style="list-style-type: none">■ Products■ Literature
Siebel Sales Catalog	<ul style="list-style-type: none">■ Products■ Literature
Siebel eTraining	Training courses
Siebel eEvents	Events
Siebel eService	<ul style="list-style-type: none">■ Solutions■ Smartscripts■ Literature■ Resolution Items

In Siebel eSales, catalogs allow customers to browse for products and literature of interest. If you also want your customers to be able to browse for training courses or event information, your company must also have licenses for Siebel Training or Siebel Events, respectively.

Siebel Sales Catalog, which allows employees to browse for products and literature, is available for use with the Siebel Quotes or Siebel Order modules of the Siebel Partner Relationship Management, Siebel Sales, and Siebel Call Center applications.

Roadmap for Creating Catalogs

A catalog is a collection of items arranged in a logical hierarchy of categories. A schematic showing the relationships between a catalog, categories, and products is shown in [Figure 3](#).

- Categories can contain content items and other categories (called subcategories).
- Each category can belong to only one catalog and one parent category.
- Products can be associated with multiple categories.

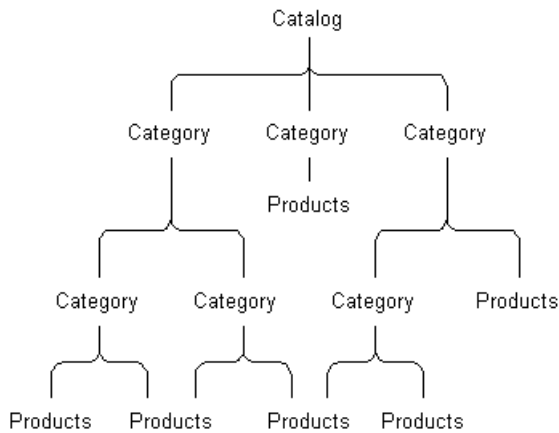


Figure 3. Catalog Hierarchy

Catalogs are created and managed using the following steps:

- **Setting up the catalog.** For more information, see [“Process of Setting Up Catalogs” on page 89](#)
- **Setting up its categories.** For more information, see [“Process of Setting Up Categories” on page 91](#)
- **Building the catalog hierarchy.** For more information, see [“Building Catalog Hierarchies” on page 97](#)

Process of Setting Up Catalogs

To set up catalogs, perform the following tasks:

- [“Creating Catalogs” on page 89](#)
- [“Assigning Access to Catalogs” on page 90](#)
- [“Selecting Languages for Catalog Translation” on page 91](#)

This process is a step in [“Roadmap for Creating Catalogs” on page 88](#).

Creating Catalogs

You create catalogs on the Catalogs page in the Catalog Administration screen.

This task is a step in [“Process of Setting Up Catalogs” on page 89](#).

To create a catalog

- 1 Navigate to the Catalog Administration screen.
- 2 Add a new record to the Catalogs list and complete the necessary fields in the record and the More Info form. Some fields are shown in the following table using the form under the More Info tab.

Field	Description
Name	Enter a name for the catalog.
Sequence	Enter a number to control how this catalog is displayed. Catalogs are displayed in ascending order by their Sequence field. NOTE: We strongly recommend making an entry in this field. Records where this field is empty appear either before or after records where this field is populated, depending on the database platform, but the records with the Sequence field empty will be randomly sequenced.
Private	Select this checkbox to make the catalog visible only to users who belong to the access groups associated with it. If the catalog is private, all of its categories will also be private.
Effective Start Date	Enter the date when the catalog becomes visible to end users.
Effective End Date	Enter the date when the catalog stops being visible to end users.
Active	Select this checkbox to make the catalog visible to end users.

Field	Description
Catalog Type	<p>Choose Buying from the drop-down list if you want the catalog to be displayed on the Web site and in the employee application.</p> <p>Catalog Type can be used to control what is displayed by setting search specifications on applets. For example, you could create two catalog types named Customer and Partner. You could then create a view with an applet that has a search specification to display only catalogs of type Partner and a second view with an applet that has a search specification to display only catalogs of type Customer.</p>
Interactive Designer Project	<p>Select a Siebel Interactive Designer project with which to associate the catalog.</p> <p>Do this if you want to place a Get Advice hyperlink next to the name of a catalog in the Product Catalog View (eSales) view. For more information about how to create a Siebel Advisor pageset, see <i>Siebel Advisor Administration Guide</i>.</p>
Image	Select an Image file associated with the catalog.

Assigning Access to Catalogs

Access groups control which groups of users can see particular catalogs. Access groups are associated with catalogs under the Access Groups tab in the Catalog Administration screen.

NOTE: Before you can perform this step, you must create the access group. For information on creating access groups, see *Siebel Security Guide*.

This task is a step in “[Process of Setting Up Catalogs](#)” on page 89.

To associate an access group with a catalog

- 1 Navigate to the Catalog Administration screen.
- 2 In the Catalogs list, select a catalog.
- 3 Click the Access Groups view tab.

The access groups associated with the catalog appear.

- 4 Add a new record to the Access Groups list.
- 5 Select an access group, and then click Add.

The access group appears under the Access Groups tab.

Selecting Languages for Catalog Translation

You can set up your catalogs in multiple languages. This is done under the Catalog Translations tab in the Catalog Administration screen.

For more information on creating multilingual applications, see *Siebel Global Deployment Guide*.

This task is a step in [“Process of Setting Up Catalogs” on page 89](#).

To choose a language for translation

- 1 Navigate to the Catalog Administration screen.
- 2 In the Catalogs list, select a catalog.
- 3 Click the Catalog Translations view tab.
- 4 Add a new record to the Catalog Translations list.
- 5 Click the Code field select button.
The Language Name dialog box appears.
- 6 Select a language, and click OK.
The language name and code appear in the Catalog Translations list.
- 7 In the Description field, type a description of the catalog in the new language.

Process of Setting Up Categories

Categories group content items, such as products and literature.

To set up categories, perform the following tasks:

- [“Creating Categories” on page 92](#)
- [“Adding Products to Catalogs” on page 93](#)
- [“Adding Literature to Catalogs” on page 94](#)
- [“Updating the Category Item Count” on page 95](#), and if necessary, [“Removing the Category Item Count” on page 95](#)
- [“Assigning Access to Categories” on page 96](#)
- [“Selecting Languages for Category Translation” on page 96](#)

This process is a step in [“Roadmap for Creating Catalogs” on page 88](#).

Creating Categories

Categories are created in the Catalog Administration screen under Categories. They are displayed to the end user in ascending order by their Sequence field.

This task is a step in [“Process of Setting Up Categories” on page 91](#).

To create a category

- 1 Navigate to the Catalog Administration screen.
- 2 In the Catalogs list, click the Name hyperlink for the catalog to which you wish to add categories. The Categories list displays the categories belonging to that catalog.
- 3 Add a new record to the Categories and complete the necessary fields in the record and the More Info tab. Some fields are described in the following table.

Field	Description
Name	Enter a name for the category
Display Name	Enter the name that the end user sees.
Sequence	Enter a number that controls the sequence in which categories are displayed. Categories are displayed in ascending order starting with 0.
Effective Start Date	Enter the date when the category becomes available for use.
Effective End Date	Enter the date when the category stops being available.
Active	Select this check box to make the category available.
Private	Select this check box if you do not want the category to inherit access properties from its parent category. If the parent category has been marked private, this category also must be private.
Usage	Select the type of category.

Field	Description
Display Template	<p>Select a template for displaying the category to the end user.</p> <p>The following display templates are available by default:</p> <ul style="list-style-type: none"> ■ Add to Cart. Use this when you want customers to move items from a list to the Shopping Cart one at a time. ■ Category Only. Use this for categories that have subcategories but no products. ■ Multiselect Checkbox. Use this when you want the customer to select items from a list and move all selected items to the Shopping Cart at one time. ■ Product Basic. Use this to include the name of the product, a description, and quantity. ■ Product Rich. Use this basic template to include just the name of the product and a description. <p>For information on creating new display templates, see “Example Process of Creating Display Templates for Categories” on page 98.</p>
Image	Select an image file associated with the category.

Adding Products to Catalogs

You add products to catalogs by associating them with categories that belong to those catalogs. This is done using the Products tab in the Categories view under the Catalog Administration screen.

NOTE: Before you can perform this step, you must define products. For information on defining products, see *Siebel Product Administration Guide*.

This task is a step in [“Process of Setting Up Categories” on page 91.](#)

To associate products with a category

1 Navigate to the Catalog Administration screen.

2 Click the Name hyperlink for a catalog.

The Categories list displays the categories belonging to that catalog.

3 Select a category with which to associate products.

4 Click the Products tab.

The products associated with the category appear.

5 Add a new record to the Products list.

A query pop-up window appears.

- 6 Enter query terms, and then click Go or Cancel.

The Add Internal Products dialog box appears with query results if you clicked Go, or with a list of products if you clicked Cancel.

- 7 Select products, and then click OK.

The products are associated with the category and appear under the Products tab.

- 8 You can also click New in the dialog box.

This adds a new record under the Products tab, where you can enter information about the new product.

Adding Literature to Catalogs

You can make literature available to employees or customers by creating catalog categories and associating documents with them. Customers can click the Literature Catalog link in the eSales Web site to access the catalog and the documents in it. You can also create new applets for your Web site to display literature.

This task is a step in ["Process of Setting Up Categories" on page 91](#).

To associate a document with a category

- 1 Navigate to the Catalog Administration Screen.

- 2 In the Catalogs list, select the eService Catalog catalog.

- 3 Click the eService Catalog hyperlink in the Name field.

- 4 Select a category or add a new one.

- 5 In the Literature list, click New.

The Literature form appears.

- 6 In the File Name field, click the select button and in the dialog box that appears, browse to the document.

- 7 Click Add.

- 8 Select a Literature Type and complete other optional fields.

Make sure that the Name field is unique.

For more information about working with literature, see *Siebel eService Administration Guide*.

Updating the Category Item Count

The category item count displayed at run time reflects the total number of items in each category. You must update it after adding new items to categories.

This task is a step in [“Process of Setting Up Categories” on page 91](#).

To update the category item count

- 1 Navigate to Catalog Administration.
The Catalogs list appears.
- 2 Click the name of a catalog.
The Categories list displays the categories belonging to that catalog.
- 3 Select a category.
- 4 Click the menu button under the Categories tab, and then choose Update Count.
The category item count is updated for that category.

Removing the Category Item Count

The category item count reflects the total number of items in the category. Certain users might not have access to all of the items in a category. If so, the count would not be accurate for those users.

If this does not meet your needs, you can use Siebel Tools to remove the display of the count from the following applets by making the count inactive:

- Product Catalog RootSubCategory List Applet (eSales)
- Product Catalog SubCategory List Applet (eSales)

This task is a step in [“Process of Setting Up Categories” on page 91](#).

To remove the category item count

- 1 In Siebel Tools, lock the eCatalog project.
- 2 Select the Applet object.
- 3 Query for the appropriate applet.
- 4 Select Base, expand the Applet Web Template object, and then select Applet Web Template Item.
The Applet Web Template Items list appears.
- 5 In the Count row, select the Inactive check box.
The Count record text turns red.
- 6 Save the project.
- 7 Compile the .srf file, selecting the Locked projects radio button.

Assigning Access to Categories

Access groups control which groups of users can see particular categories. Access groups are associated with categories under the Access Group tab.

If you have already associated an access group with a catalog, as described in [“Assigning Access to Catalogs” on page 90](#), that group of users also has access to all the categories in the catalog, and you do not have to assign it access to the categories. Assign access to categories only if you want access to individual categories to users who do not have access to the entire catalog.

NOTE: Before you can perform this step, you must create the access group. For information on creating access groups, see *Siebel Security Guide*.

This task is a step in [“Process of Setting Up Categories” on page 91](#).

To associate an access group with a category

- 1 Navigate to the Catalog Administration screen.
- 2 In the Catalogs list, click the name of a catalog.
The Categories list displays the categories belonging to that catalog.
- 3 Select a category.
- 4 Click the Access Groups view tab.
The access groups associated with that category appear.
- 5 Add a new record to the Access Groups.
A dialog box appears.
- 6 Select an access group, and then click Add.
The access group appears in the Access Groups list.

Selecting Languages for Category Translation

You can choose the languages for which to translate category information.

For more information on creating multilingual Web sites, see *Siebel Global Deployment Guide*.

This task is a step in [“Process of Setting Up Categories” on page 91](#).

To choose a language for translation

- 1 Navigate to the Catalog Administration screen.
- 2 In the Catalogs list, click the name of a catalog.
The Categories list displays the categories belonging to that catalog.
- 3 Select a category.

- 4 Click the Category Translations tab.

Languages for translation appear.





- 5 Add a new record to the Category Translations list and complete the necessary fields, described in the following table.

Field	Description
Code	Select a language
Display Name	Name in the new language that the Siebel eSales Web site visitor sees.
Description	Brief description of the category in the new language.
Extended Description	More detailed description of the category in the new language.

Building Catalog Hierarchies

A catalog hierarchies determines the structure and navigation paths within the catalog. Hierarchies are built and modified using the buttons in the Categories list. [Table 19](#) shows the four buttons that are used to promote, demote, move up, and move down categories.

Table 19. Buttons For Modifying Category Hierarchies

Button	Function
	Demote one level
	Promote one level
	Move up
	Move down

This task is a step in [“Roadmap for Creating Catalogs”](#) on page 88.

To create subcategories

- 1 Navigate to the Catalog Administration screen.

The Catalogs list appears.

- 2 Click the name of a catalog whose hierarchy you wish to modify.

The Categories list displays the categories belonging to that catalog.

- 3 Use the move up and move down buttons to place a category you wish to make a subcategory beneath the category you wish to make its parent.

- 4 With the child category selected, click the demote one level button.

The subcategory appears in a tree as a node below its parent. The tree can be expanded and collapsed.

- 5 Arrange other categories below the parent category as necessary.

- 6 Select each category in turn and click the demote one level button.

The subcategories are placed in the tree below the other subcategory. The Sequence field can be used to display the subcategories in the correct order on the Categories page and on the Siebel eSales Web site.

- 7 Use the buttons as necessary to extend the catalog hierarchy.

Subcategories are displayed under categories on the Siebel eSales Web site in ascending order by sequence, and then in alphabetical order by display name.

Example Process of Creating Display Templates for Categories

Display templates control how catalog categories are displayed to the end user. A number of templates are available by default, as described in [“Creating Categories” on page 92](#). You can also create custom display templates.

You create and edit display templates in Siebel Tools, and then add them to the Siebel eSales application using your employee application’s administration screens.

The example shown in this process uses a display template called Product New, which uses a view called Product Catalog Category New Detail View (eSales).

For more information on creating Siebel views and applets, and on dynamic drilldown behavior, see *Using Siebel Tools*.

To create a new display template, perform the following tasks:

- [“Creating a Category Detail View” on page 98](#)
- [“Creating Drilldown Objects for the View” on page 99](#)
- [“Editing the Web Layout of the New Display Template” on page 100](#)
- [“Adding the New Display Template to the Application” on page 100](#)

NOTE: You must also add the view to the appropriate responsibilities, for example Siebel Administrator and Web Registered User.

Creating a Category Detail View

You create the view and add it to the Siebel eSales Catalog screen using Siebel Tools.

This task is a step in [“Example Process of Creating Display Templates for Categories” on page 98](#).

To create a detail view for the new display template

- 1 In Siebel Tools, lock the eCatalog project.
- 2 Select the View object.
- 3 Query for Product Catalog Category Detail View (eSales).
- 4 Copy the record, and then give the copy a new name, for example Product Catalog Category New Detail View (eSales).
- 5 Select the Screen object.
- 6 Query for eSales Catalog Screen.
- 7 Expand the Screen object, and then select Screen View.
- 8 Add Product Catalog Category New Detail View (eSales) to the Screen Views list.

Adding the View to the Siebel eSales Catalog Screen

In Siebel Tools, use the standard method for adding the view to the Catalog screen. For more information, see *Using Siebel Tools*.

Creating Drilldown Objects for the View

You create drilldown objects for the view using Siebel Tools.

This task is a step in [“Example Process of Creating Display Templates for Categories”](#) on page 98.

To create drilldown objects for the view

- 1 In Siebel Tools, select the Applet object.
- 2 Query for Product Catalog RootSubCategory List Applet (eSales).
- 3 Expand the Applet object, and then select Drilldown Object.
The Drilldown Objects list appears.
- 4 Copy the Product Basic record.
- 5 In the new record, fill in the fields shown in the following table, leaving the rest the same as in Product Basic.

Field	Value
Name	Product New
View	Product Catalog Category New Detail View (eSales)

- 6 Expand Drilldown Objects, and then select Dynamic Drilldown Destination.
The Dynamic Drilldown Destinations list appears.
- 7 Copy the Product Basic record.

- 8 In the new record, fill in the fields shown in the following table, leaving the rest the same as in Product Basic.

Field	Value
Name	Product New
Field	Display Template Lang Indep Name
Value	Product New
Sequence	3

- 9 Repeat [Step 6](#) through [Step 8 on page 100](#) for the Product Basic and Product Rich drilldown objects.
- 10 Repeat [Step 2 on page 99](#) through [Step 9](#) for Product Catalog SubCategory List Applet (eSales).

Editing the Web Layout of the New Display Template

You edit the Web layout of the new display template using Siebel Tools, and then compile the project.

For more information on editing Web layouts, see *Siebel Tools Reference*.

This task is a step in [“Example Process of Creating Display Templates for Categories” on page 98](#).

To edit the Web layout of the new template

- 1 In Siebel Tools, select the View object.
- 2 Query for Product Catalog Category New Detail View (eSales).
- 3 Right-click on the view record, and then choose Edit Web Layout.
The Web layout appears.
- 4 Edit the layout, and then save it.
- 5 Compile the .srf file, selecting the Locked projects radio button.

Adding the New Display Template to the Application

To add the new display template to the application, you must do the following in the Application Administration screen:

- Add the display template to the List of Values.
- Add its view to the Views list.
- Add its view to the appropriate responsibilities in the Responsibilities list.

This task is a step in [“Example Process of Creating Display Templates for Categories” on page 98](#).

To add the new display template and view to the application

- 1 Navigate to the Application Administration screen, then the List of Values view.
The List of Values appears.
- 2 Add a new record.
- 3 Fill in the fields in the following table.

Field	Value
Type	PROD_CTGY_DISPLAY_TEMPLATE
Display Value	Product New
Language Independent Code	Product New
Language	English-American

- 4 Choose Views from the Show drop-down menu.
The Views list appears.
- 5 Add a new record.
- 6 Fill in the fields in the following table.

Field	Description
View Name	Product Catalog Category New Detail View (eSales)
Description	Product Catalog Category New Detail View (eSales)
Local Access	Check the check box.

- 7 Choose Responsibilities from the Show drop-down menu.
- 8 Add Product Catalog Category New Detail View (eSales) to the appropriate responsibilities, for example Siebel Administrator.
- 9 Restart the Siebel Server.

Process of Setting Up Attribute Search

Users can choose to search for products based on values of the attributes of those products. This is known as *attribute search*, and it is sometimes also known as *parametric search*.

Attribute search allows users to take advantage of the class system. Instead of entering free-form search strings into a full-text search engine, users of attribute search can select from known attributes (for example, color, size, shape, and maximum temperature) of a particular class of products.

Use of Attribute Search

Sales representatives access attribute search as follows:

- Click Search in the link bar of the Catalog view of a Quote or Order. The Attribute Search form appears.
- Select a product family in the Select a Product Family drop-down list. Attributes and other product details specific to the product family appear in the search form below the product family.
- Selects specific values for one or more of these attributes and product details. There are drop-down lists that the user can use to select attributes. The user can also enter values manually, including comparison operators.
- Click Search. Search results appear to the right of the form, including all products in the catalog that match these search criteria.

Some examples of possible attribute searches are:

- **Multiple Attribute Search.** The user enters values for more than one attribute. For example, in searching for a car, the user can select Red as the value for the Exterior Color attribute and Gray as the value for the Interior Color attribute. The search returns all cars in the catalog with red exteriors and gray interiors.
- **Attribute-Price Search.** The user enters values for an attribute and for the price. For example, in searching for a coat, the user can select black as the value for the Color attribute, and enter less than 250 as the value for price. The search returns all coats in the catalog that are black and cost less than \$250.

To set up attribute search, perform the following tasks:

- [“Making Classes Searchable” on page 102](#)
- [“Making Attributes Searchable” on page 103](#)
- [“Removing the List Price Field from Attribute Search” on page 103](#)

Making Classes Searchable

Product families are those classes that have been made searchable.

You must set the Searchable checkbox separately for each class that you want to make searchable. Subordinate classes in the hierarchy do not inherit this property from their parent classes. See *Siebel Product Administration Guide* for more information about the class system.

This task is a step in [“Process of Setting Up Attribute Search” on page 101](#).

To make a class searchable

- 1 Navigate to the Administration Product screen, then the Product Classes view.
- 2 In the Product Classes list, select the Locked Flag checkbox for the desired class.
- 3 Click the Details view tab.
- 4 In the Details form, select the Searchable checkbox.
- 5 Click Release New Version.

Making Attributes Searchable

You can choose which attributes are searchable.

This task is a step in [“Process of Setting Up Attribute Search” on page 101](#).

To make an attribute searchable

- 1 Navigate to the Administration Product screen, then the Product Classes view.
- 2 In the Product Classes list, select the Locked Flag checkbox for the class that the attribute is in.
- 3 Click the Class Attributes view tab.
- 4 In the Class Attributes list, in the record for the attribute, select the Searchable checkbox.
- 5 In the Product Classes list, select the class and click Release New Version.

Removing the List Price Field from Attribute Search

You can remove the List Price field from a attribute search.

This task is a step in [“Process of Setting Up Attribute Search” on page 101](#).

To remove the List Price field

- 1 In Siebel Tools, select the Applet in the Object Explorer.
- 2 Query for the Applet Attribute Search Applet.
- 3 In the Object Explorer, select Applet User Prop.
- 4 Select the Show Price Attribute user property.
- 5 Change the Value from Y to N.

About Dynamic Product Catalogs

The dynamic product catalog is displayed when the user is creating a quote or an order in an application that uses the high-interactivity interface. This screen has enhancements that are useful for employees placing orders.

- In addition to the usual header and line items area, it has a product selection work area, which consolidates all product selection mechanisms and makes them accessible from one location. This work area displays all product selection mechanisms using the high-interactivity interface, improving performance.
- It has a Show Navigator button that the user can click to view a menu of the structure of the catalog, which allows the user to jump immediately to a product.
- It gives users access to the persistent Quote or Order header and selected product information.

- It allows users to select attributes within the catalog, while browsing or searching for products, before adding the products to a quote or order.
- It allows users to edit the header and line items, and only the data is refreshed, not the view.
- It performs only minimum screen refresh.
- It can show multiple price information.
- It is integrated with eligibility and compatibility, which are supported in all product selection mechanisms, including Catalog, Configurator, product pick-applets, Add Item and Search.
- It is integrated with promotions.
- It includes an integrated search tool, which allows you to search based on S_PROD_INT fields and price. The list of search criteria can be configured using Siebel Tools.
- It allows users to select Favorites, predefined product instances that the user can add to the current line item. Users can choose to add the entire list of Favorites or individual items. Users can edit Favorites before adding them to the line item. Users can add multiple products using the Quick Add add applet.
- Users can view all the assets of the account of the current quote or order. Users can perform the asset-based ordering operations, Modify, Disconnect, Suspend, and Resume.
- For inactive quotes and orders, which the user, it suspends the user's ability to add or edit items.
- It is administered using the standard catalog administration screen and it supports all catalog visibility, including price list based visibility, without configuration.
- It can be configured using standard Siebel tools object changes.

The dynamic catalog is also fully integrated with Configurator:

- When the user clicks Customize, Configurator appears in the catalog within the header and line item applets. Header and Line item applets are read-only in this view
- Configurator UI refresh does not refresh the whole view.
- Child component display does not refresh the whole view.
- Tab change does not refresh the whole page.
- It can be configured using Siebel Tools so it does not display header and line items applets.

For more information about how end users work with the dynamic catalog, see [“Adding Line Items to a Quote or an Order” on page 129](#).

For more information about setting up the dynamic product catalog, see:

- [“About Configuring Dynamic Product Catalog Applets” on page 105](#)
- [“Configuring the Show Navigator Button of the Dynamic Product Catalog” on page 106](#)

About Configuring Dynamic Product Catalog Applets

All Dynamic Catalog applets belongs to special classes, This specialization is needed because the dynamic catalog view render Standard Interactivity (SI) catalog applets in High Interactivity (HI) views.

These specialized classes all use same technique to expose SI applets in HI views. All these classes are declared as HI enabled, but the applets are configured as SI applets with one specialized ActiveX control added: the control ProdSelectionCC of type CustomControl.

This control should be added to a web template item of the applet definition as well as to a control type item.

This specialized ActiveX control is used to create a place holder HI applet with one single hidden ActiveX control on it. When the Siebel Web Engine renders the SI applet for the view, this custom control is instantiated and the SI layout is generated. This layout then is inserted into the empty HI applet placeholder space.

Special code is needed both on the server side and on the client side to provide HI user experience, to render SI controls as HI, and to take user input from this controls.

Each class used for Dynamic Catalog applets addresses specific needs and customizations, but most of this classes can be reused by customers who want to extend or customize existing catalog applets. All new implementations based on these applet classes should follow base guidelines for developing SI applets. In addition, they should to limit types of the controls and layouts to ones shipped with the product.

Dynamic Catalog applets belong to the following specialized classes:

- **ProdCatalogHI**. This class is used for catalog category list applets. Siebel catalog applet is a combination of two applets, catalogs and root categories. Root categories applet is not rendered separately from catalogs applet, so no special support is needed for the root categories applet, but it needs to be of this class to render properly as a part of the parent applet. To indicate this applet user property NoAxSupport is set to TRUE. If an applet is of this class and has no ActiveX control but has the user property CanShowInHighInteractivity, then it is rendered using SI renderer, but it is treated as an HI applet.
- **ListProdSelection** and **ProdSelection**. These are generic classes that should be used for new product selection applets, such as ISS Promotion Edit UI Detail List Applet. These classes implement all HI conversion functionality, including rendering customizations used by the other classes. If you add new controls with new methods that require UI refresh to the applet, you should set the user property PSPEXecute with a value = to comma separated method names. As an example, see the ISS Promotion Edit UI Detail List Applet in the sample data; in this example, PSPEXecute = DeleteItem,NotifyNewData. This PSPEXecute call causes the application to invalidate the PSP cache on the corresponding products Business Component and to refresh the applet content of the UI. Buttons and edit fields have HI behavior. Drilldowns work like HI and perform new view navigation.
- **ListCatProducts** and **CatProducts**. These classes are very similar to ListProdSelection, but they also support some functionality and methods specific to catalog category products.
- **ParametricSearch**. Applets using this class should not extend or customize layout and functionality extensively, because this class is very specific to its purpose and layout, used for searching. It implements server-side support for HTML control used as select forms.

- **UMF.** This is a custom class for the Recommendations list applet. It shows a variable number of controls depending on active row.

Configuring the Show Navigator Button of the Dynamic Product Catalog

You can configure the Show Navigator button by modifying the .cfg file and by using Siebel Tools.

Modifying the CFG File

To configure the Navigator menu by modifying the .cfg file, you must add a [Catalog Navigator] section to the .cfg file and enter the values shown in [Table 20](#) in that section.

To configure Navigator by modify the CFG

- 1 Locate the configuration file (*.cfg file) for your Siebel Business Application.

For Siebel server, *.cfg files can be found in the directory (\$Siebel Server\Instal\Dir)\bin\$(Language). For example, the ENU version of Siebel Call Center application uses the file bin\enu\uagent.cfg.

For Siebel Developer Web client, *.cfg files are in the following directory:

(\$Siebel Client\Instal\Dir)\bin\$(Language)

- 2 Back up the original .cfg file.
- 3 Use Notepad to open the .cfg file and add the following section:

```
[Catalog Navigator]
```

```
FontName =
```

```
FontSize =
```

```
FontColor =
```

```
ForegroundColor =
```

```
BackgroundColor =
```

```
LastSelectionFontColor =
```

```
LastSelectionBackgroundColor=
```

NOTE: Enter specific values for these parameters, as defined in [Table 20](#).

- 4 Save the .cfg file.

- 5 For the Siebel Server, you must restart the Object Manager. For the Siebel Developer Web client, you must restart the client before the change takes effect.

Table 20. Configurator Settings in the Catalog Navigator Section of the CFG File

Feature Controlled by Setting	Variable Name	Variable Value
Font	FontName	Font for the navigator menu string. For example, Arial.
Font Size	FontSize	Font size for the navigator menu string. For example, Size8.
Font Color	FontColor	Font color for the navigator menu string. For example, 0xCC6633.
Foreground Color	ForeGroundColor	Foreground color for the navigator. For example, 0x3399CC.
Background Color	BackGroundColor	Background color for the navigator. For example, 0x99ffff.
Font Color for the Last Selection	LastSelectionFontColor	Last selection menu thread font color. For example, 0x79B67E.
Background Color for the Last Selection	LastSelectionBackGroundColor	Last selection menu thread font background color. For example, 0xF7F3F7.

Using Siebel Tools

By using Siebel Tools, you can change the navigator menu in the ways described in this section.

You should be familiar with Siebel Tools to perform these tasks. For more information, see *Using Siebel Tools*.

Making the Menu Display Different Strings Instead of the Product Name

You can make the menu display different information instead of just the product name. For example, the menu can display product description, product, and price or it can display product and eligibility status.

To making the menu display different strings, do the following in Siebel Tools:

- 1 Search for and select the Business component PDS Internal Product - Navigator.
- 2 Search for and select the field Product Display String.
- 3 Change the Calculated Value column from [Name] to whatever string you want to display.

Use the following procedure to change the Catalog Detail page.

Changing the Catalog Detail Page

The Catalog Detail Page is the view on top level navigator menu selection.

To Change the Catalog Detail page, do the following in Siebel Tools:

- 1** Search for and select the applet named COM ActiveX Placeholder Applet - Quote.
- 2** Search for and select the control named HTML Navigator Control.
- 3** Search and select the control user property Catalog View.
- 4** Modify the value field of this user property to the new view.

Use the following procedure to always show the expanded version of the Navigator Menu.

Always Showing the Navigator Menu Expanded

To always show the navigator menu expanded, do the following in Siebel Tools:

- 1** Search for and select the applet named COM ActiveX Placeholder Applet - Quote.
- 2** Search for and select the control named HTML Navigator Control.
- 3** Search for and select the control user property DefaultExpanded.
- 4** Modify the value field of this user property so it is Y instead of N.

9

Setting Up Product Recommendations

This chapter covers product recommendations. It includes the following topics:

- “About Product Recommendations” on page 109
- “Scenario for Product Recommendations” on page 110
- “Creating Product Recommendations” on page 111
- “Turning Off Product Recommendations” on page 112
- “Best Practices for Implementing Product Recommendations” on page 112
- “Product Recommendation Technical Reference” on page 113
- “Configuring Recommendation and Scoring Logic” on page 117
- “The Unified Messaging Service and Product Recommendations” on page 118

NOTE: Instead of using the methods described in this chapter, you can create recommendation rules in tabular form using either adjustment groups or dynamic matrices. This is recommended when you are creating recommendation rules for many different products at the same time. For more information, see the sections about adjustment groups and dynamic matrices in *Siebel Pricing Administration Guide*.

About Product Recommendations

Product recommendations allow a marketing administrator to define up-sell and cross-sell recommendations for a product. The marketing administrator enters the text of the recommendation message and a score indicating how important this recommendation is compared with other recommendations for the product.

When a sales representative uses the product catalog to add a product to a quote or order, the Messages list displays the recommendations for this product in order of their score.

The sales representative can click the Accept button in the Messages list to accept a recommendation, automatically adding the recommended product to the quote or order. The sales representative can click the Reject button to reject a recommendation, removing the recommended product from the Messages list.

If an upsell recommendation is rejected, it will not be shown again to the same account or contact. If a cross-sell recommendation is rejected, it will not be shown again in the same quote or order, but it will be shown again if the same account or contact creates a new quote or order for the product. The administrator can change this behavior.

The recommendations list can be displayed in two ways:

- Messages list is displayed in the product catalog.
- A button is displayed in the Line Items list applet to indicate whether messages are available. The user clicks this button to display a pop-up Messages list.

In addition to displaying product recommendations that have been defined, the Messages list also automatically displays a recommendation for every product promotion that the customer is eligible for. This only applies to product promotions, which are defined in the Administration - Product screen, Product Promotions view, and not to other types of promotions. For more information about product promotions, see *Siebel Pricing Administration Guide*.

Scenario for Product Recommendations

A marketing administrator is defining recommendations associated with a 2.0 megapixel digital camera. The product administrator has already defined this product and related products. The marketing administrator is creating recommendations for products that have been defined.

Market research has shown that it is often possible to persuade customers to buy a 3.2 megapixel camera instead of a 2.0 megapixel camera by telling them that higher resolution is needed to print full-sized pictures. The marketing administrator defines a recommendation associated with the 2.0 megapixel camera that has the values:

- **Message Type.** Upsell Recommendation.
- **Recommended Product.** 3.2 megapixel camera that is in the same product line as the 2.0 megapixel camera.
- **Message.** Higher resolution allows you to print pictures up to 8' x 10'.
- **Score.** 20. (This is the highest number in this marketing administrator's scoring system. It is possible to use higher numbers as scores. Without configuration, the accepted scores are 0 to 100.)

Market research has also shown that it is often possible to persuade customers to buy extra memory cards with their digital cameras by telling them that more memory is needed to store large numbers of pictures. The marketing administrator wants this recommendation to be high on the Messages list but lower than the upsell message, because customers should decide what camera they want before they decide what size memory card they want.

For the 2.0 megapixel camera, the marketing administrator recommends a small memory card by defining a recommendation with the values:

- **Message Type.** Cross-sell Recommendation.
- **Recommended Product.** 8 megabyte memory card that is compatible with the 2.0 megapixel camera.
- **Message.** An extra memory card is needed to store more than 20 pictures.
- **Score.** 19.

The marketing administrator goes on to define more recommendations for other products. In addition, the marketing administrator defines a product promotion that offers a 5 percent discount if you buy both a 2.0 megapixel camera and a memory upgrade.

A customer who has seen the 2.0 megapixel camera in a catalog telephones to order it. The call center representative creates an order for the customer and adds this camera as a line item.

The sales representative sees the first recommendation in the Messages list and suggests that the customer may want to buy a 3.2 megapixel camera instead, to print 8x10 pictures. The customer says that it is not necessary to print such large pictures. The sales representative clicks Reject.

The sales representative looks at the recommendation that is now at the top of the Message list and suggests the customer may want to buy a memory card to store more than twenty pictures. The customer agrees that it may be necessary to store more pictures. The sales representative clicks Accept to add the memory card to the order.

The customer now qualifies for the promotional discount for buying this camera and memory card. A recommendation appears in the messages list saying the customer is eligible for this promotion. The customer is glad to receive the discount, and the sales representative clicks Accept to add the product promotion to the order.

Creating Product Recommendations

To improve performance, do not add more than 10 recommendations for each product. Each recommendation must be eligibility checked and priced, which can slow performance. Users only view the first three or four recommendations in the Messages list, so there is no benefit to defining more than 10.

After creating the product recommendation, you can also specify translations for the message text.

NOTE: Before the marketing administrator can create product recommendations, the product administrator must have already created all the products involved. For more information about creating products, see *Siebel Product Administration Guide*.

To create a product recommendation

- 1 Navigate to the Administration - Product screen.
- 2 In the Products list, select the product that you want to create a recommendation for.
- 3 In the link bar of the More Info view, select Product Recommendations.
- 4 In the Product Recommendations list, add a new record and complete the necessary fields, described in the following table.

Field	Comments
Score	Enter a score that will be used to determine this recommendation's rank in the Message list.
Recommended Product	Select the recommended product.
Message Type	Select the type of the recommendation. Options are Cross-Sell Recommendation and Upsell Recommendation.
Reason	Enter the message to be displayed in the Messages list.
Effective From and Effective To	Enter the start date and end date of the time period when this recommendation is active.

- 5 To specify translations for the message text that you entered in the Reason field, in the Translations list that is below the Product Recommendations list, add new records and complete the necessary fields, described in the following table.

Field	Comments
Language	Enter the language code for the translation. For example, if this is the French translation of the message text, enter the code FRA.
Text	Enter the translation of the message text. This will be displayed in the Messages list of implementation in the specified language.

Turning Off Product Recommendations

Turning off product recommendations can improve performance.

To turn off product recommendations

- 1 Navigate to the Administration - Runtime Event screen, then the Action Sets view.
- 2 In the Actions Sets list, select the record named Product Recommendation.
- 3 In the child list, in the record named Raise Signal, deselect the Active checkbox.

Best Practices for Implementing Product Recommendations

The following best practices improve the performance of product recommendations:

- Avoid heavy eligibility and pricing processing.
 - The product recommendation procedure is executed every time the line item focus changes. It must run very quickly, or it will slow performance.
 - If the customer has slow eligibility or pricing logic (for example, an external call), configure the underlying procedure so that the slow logic is not executed when called from the product recommendation procedure (for example, by passing an input Mode).
 - Alternatively, remove the eligibility and pricing subprocedure calls from the product recommendation procedure.
- Avoid suppressing duplicate messages for business-to-business accounts.
 - Duplicate suppression processing loads all previous responses for the account at the beginning of the call. Loading more than 100 responses will result in a perceptible delay.
 - For business-to-business selling, configure the upsell and cross-sell message types to suppress duplicates for the quote or order instead of for the account. For more information, see [“Customizing Duplicate Message Suppression for Product Recommendations” on page 118](#).

- Simplify the variable maps used to construct the shared context variables and row set.
 - Product recommendation only needs the Product Id from the current line item.
 - All other fields are used for eligibility and pricing of the recommendations.
 - If you are using a limited version of eligibility or pricing, create a special variable map that only loads the variables that are required.
- If the product recommendation procedure does not run quickly enough to be invoked every time a line item is selected (for example, because it invokes an external real-time marketing engine), then reconfigure the run-time events that run the engine:
 - Only generate recommendations when a product is picked.
 - Add a button to generate product recommendations on demand.

Product Recommendation Technical Reference

In order to customize recommendations to suit your business model, you can modify the controlling workflow, the Recommendation Procedure, and the business service used to implement product recommendations. For more information about workflows, see *Siebel Business Process Framework: Workflow Guide*.

The Recommendation Procedure is a PSP procedure. For more information about PSP procedures, see *Siebel Order Management Infrastructure Guide*.

Product recommendations are based on:

- [“Product Recommendation Driver Workflow” on page 113](#)
- [“Product Recommendation Get Recommended Products” on page 114](#)
- [“Product UpSell CrossSell Service” on page 115](#)

Product Recommendation Driver Workflow

Product Recommendation Driver Workflow is the controlling workflow that is responsible for gathering current context, passing it into the Responsibility Procedure, and passing the result to Unified Message Service.

This workflow is shown in [Figure 4](#).

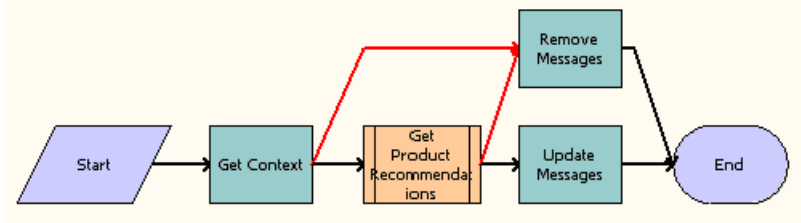


Figure 4. Product Recommendation Driver Workflow

Workflow Description. This workflow does the following:

- **Get Context.** Gathers current context. Using Context Service, it collects the quote or order information, and the product information of current line item.
- **Get Product Recommendations.** Calls the PSP process Product Recommendation Get Recommended Products, which uses the product information for the current line item and generates the recommended products.
- **Remove Messages.** Handles errors. If any errors occurred, this error handling step removes all the messages to prevent showing wrong recommended products.
- **Update Messages.** Using the output of the previous step, populates the recommended products into the user interface.

Product Recommendation Get Recommended Products

Product Recommendation Get Recommended Products is the PSP procedure for recommendations. It is responsible for gathering the recommended products, running them through Eligibility and Pricing, and then constructing them in payload format.

This workflow is shown in [Figure 5](#).

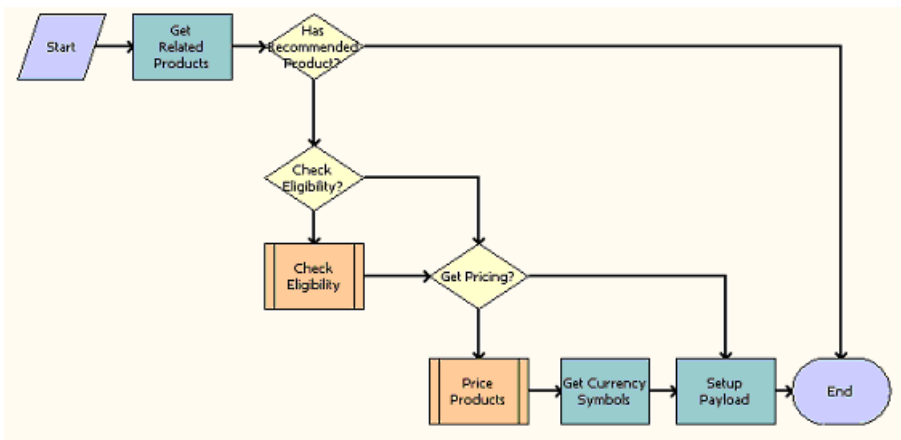


Figure 5. Product Recommendation Get Recommended Products

Workflow Description. This workflow does the following:

- **Get Related Products.** Finds all the recommended products based on the product in the current line item.
- **Has Recommended Product?.** Checks if any recommended product exists. If not, skip all the remaining steps.
- **Check Eligibility?.** Checks whether the process property EligibilityFlag=Y. If not, skip the Check Eligibility step.
- **Check Eligibility.** Calls the subprocess Product Eligibility & Compatibility - Default, which runs an eligibility test on each recommended products. For more information about this subprocess, see the section about eligibility in *Siebel Product Administration Guide*.
- **Get Pricing?.** Checks whether the process property PricingFlag=Y. If not, skip the Price Products and Get Currency Symbols steps.
- **Price Products.** Calls the subprocess Pricing Procedure - Default, which prices each recommended product based on current context. For more information about this subprocess, see the technical reference in *Siebel Pricing Administration Guide*.
- **Get Currency Symbols.** Gets currency symbols from the pricing result, and passes them to the payload. The currency symbol will be used in the user interface.
- **Setup Payload.** Sets up the required message payload for the message service. This payload will be used by the Update Messages step in the driver workflow.

Product UpSell CrossSell Service

This business service includes the following methods:

- [“ExecuteUpsell Business Service Method” on page 116](#)
- [“ExecuteCrossSell Business Service Method” on page 117](#)

This business service does not work without the user interface. It works for quote and order entry line items, not for any other business component.

ExecuteUpsell Business Service Method

This method is part of “[Product UpSell CrossSell Service](#).”

Usage

ExecuteUpsell Business Service method is triggered when the user clicks Accept for an upsell recommendation.

It changes the product on the current line item to the recommended product. Then, depending whether the current product and recommended product are simple, bundle, or customizable products, it performs the actions described in [Table 21](#).

Table 21. Additional Actions Performed by AcceptUpsell Method

From \ To	convert to: Simple Product	convert to: Bundle Product	convert to: Customizable Product
convert from: Simple Product		Generates subcomponents	Generates default components and attributes.
convert from: Bundle Product	Deletes subcomponents	Deletes original subcomponents that are not in the new bundle. Adds any missing subcomponents.	Deletes original subcomponents of bundle. Generates default subcomponents and attributes of customizable product.
convert from: Customizable Product	Deletes all subcomponents and attributes.	Deletes subcomponents and attributes of customizable product. Generates subcomponents of bundle.	Prompts user to launch Configurator.

When one compound product is changed to another, the user must launch Configurator to generate missing components and attributes, to delete disallowed components and attributes, and to ensure a valid configuration. As much of the original configuration as possible is retained.

Input

If the business service is invoked from UMS, then Related Product Id is a required property under the child property set Payload.

If the business service is invoked from anywhere else, Related Product Id is the only required property.

Output

None.

ExecuteCrossSell Business Service Method

This method is part of [“Product UpSell CrossSell Service.”](#)

Usage

ExecuteCrossSell Business Service Method is triggered when the user clicks Accept for a cross-sell recommendation message.

It adds a new line item for the recommended product to the current quote or order.

Input

If the business service is invoked from UMS, then Related Product Id is a required property under the child property set Payload.

If the business service is invoked from anywhere else, Related Product Id is the only required property.

Output

None.

Configuring Recommendation and Scoring Logic

You can modify the PSP procedure used for product recommendations to call custom recommendation and scoring logic. For example:

- The first step of the PSP procedure gets a list of recommended products. You can modify it to call any business service or workflow to generate this product list.
- The last step of the PSP procedure scores the recommended products to determine their order on the Messages list. You can modify it to call any business service or workflow to score the products.

To avoid degradation of performance, make sure that any custom or external logic executes with acceptable (very low) latency.

Use the Siebel Web Services invocation framework to call external real-time marketing functionality.

For more information about the PSP procedure used for product recommendations, see [“Product Recommendation Get Recommended Products”](#) on page 114.

The Unified Messaging Service and Product Recommendations

Without configuration, product recommendations support two message types, Cross-Sell Recommendation and Upsell Recommendation.

You can modify existing message types, for example to change message response logging and duplicate suppression. You can also define new message types.

The messages use the Unified Messaging Service. For more information about the Unified Messaging Service, see *Siebel Order Management Infrastructure Guide*.

Common tasks for customizing the messaging include:

- [“Customizing Message Response Logging for Product Recommendations” on page 118.](#)
- [“Customizing Duplicate Message Suppression for Product Recommendations” on page 118.](#)

Customizing Message Response Logging for Product Recommendations

Without configuration, the Unified Messaging Service logs both Accept and Reject responses for Upsell Recommendations and for Cross-Sell Recommendations.

You can disable logging by editing the message type responses definition.

You can change the field values that are logged by editing the message type payload definition and changing the Product Recommendation PSP Procedure to populate the additional payload fields.

Logged responses are stored in the S_COMMUNICATION table. You can view responses using Siebel Reports. For more information about Siebel Reports, see *Siebel Reports Administration Guide*.

For more information about working with the Unified Messaging Service, see *Siebel Order Management Infrastructure Guide*.

Customizing Duplicate Message Suppression for Product Recommendations

Without configuration, the Unified Messaging Service suppresses the following duplicate product recommendations:

- Upsell recommendations will never be shown to the same account or contact after they have been rejected
- Cross-sell recommendation will never be shown in the same quote or order after they have been rejected. However, if the customer places a new quote or order and picks the same product, the cross-sell messages that have been rejected in earlier quotes or orders will be displayed.

You can edit the message type responses definition to:

- Suppress recommendations after they have been accepted.
- Alter the scope of suppression.
- Disable suppression completely.

NOTE: Duplicate suppression works only if logging is enabled.

For more information about working with the Unified Messaging Service, see *Siebel Order Management Infrastructure Guide*.

10 Creating a Quote or Sales Order

This chapter provides the processes and procedures to create quotes and sales orders. It covers the following topics:

- [“Process of Creating a Quote” on page 121](#)
- [“Process of Creating a Sales Order That Is Not Based on a Quote” on page 126](#)
- [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#)
- [“Changing the Default Price List and Rate List” on page 164](#)
- [“How End Users Work with Product Promotions” on page 164](#)
- [“Process of Enabling the Automatic Configuration of Customizable Products” on page 167](#)

For more information about quotes, see [Chapter 11, “Working with Quotes.”](#)

For more information about orders, see [Chapter 12, “Working with Sales Orders.”](#)

This chapter focuses primarily on sales orders. For details about working with service orders, see *Siebel Field Service Guide*.

Process of Creating a Quote

To create a quote, perform the following tasks.

- 1 Create the Quote record in one of two ways:
 - [“Starting a Quote.”](#) You can create a new quote record manually from a number of screens.
 - [“Using Auto Quote from an Opportunity.”](#) Alternatively, you can create the new quote record by using Auto Quote from an opportunity.
- 2 [“Performing Common Tasks for Creating Quotes and Sales Orders.”](#) Because the remaining tasks for entering information about the quote are the same whether you are creating a quote or an order, they are covered in [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).
- 3 [“Verifying a Quote.”](#) When you have finished creating a quote, you should verify it to see if you have made any errors.

Starting a Quote

You can start a new quote from a number of screens:

- If you start the quote from the account, contact, or opportunity screen, your Siebel Business Application automatically copies the account, contact, or opportunity information into the quote. If a price list is associated with the account or opportunity, it is also entered.
- If you start the quote using the Quotes screen, you must enter all this information manually.

For information about how to start a quote using an existing asset, see [Chapter 13, "Using Asset-Based Ordering."](#)

This task is a step in ["Process of Creating a Quote" on page 121.](#)

To start a quote

- 1 Perform one of the following actions, depending on which screen you want to use to start the quote:
 - To start a quote from the Quotes screen, navigate to the Quotes screen.
 - To start a quote from an opportunity, navigate to the Opportunities screen, Opportunities List view, drill down on the name of the opportunity for which you want to generate a quote, and then click the Quotes view tab.
 - To start a quote for an account, navigate to the Accounts screen, Accounts List view, drill down on the name of the account for which you want to generate a quote, and then click the Quotes view tab.
 - To start a quote for a contact, use the site map to navigate to the Contacts screen, Contacts List, then the Quotes view; in the Contacts list, select the name of the contact for which you want to generate a quote.
- 2 In the Quotes list, add a new record. The information in the following table is entered automatically. Not all of this information is visible in the Quotes views of the Opportunity, Account, or Contact screen, but if you create quotes from these views, the information will be visible when you display the quotes in the Quotes screen.

Field	Comments
Sales Rep	Displays the name of the user who created the quote.
Quote #	Displays a unique system-generated number assigned to the quote when it is created.
Revision	Displays the number indicating which revision of the quote this is. When the quote is created, this value is 1.
Created	Displays the date the quote was created.

Field	Comments
Active	<p>A checkbox indicating whether the quote is active. When you create a quote, it is automatically selected, since the quote is active.</p> <p>NOTE: The quote must be designated as active in order to attach files to it or otherwise update it.</p>
Status	<p>Displays the initial status of the quote, In Progress. The status can be changed later, as the quote process continues. For example, if you convert the quote to an order, the status changes to Order Placed. Other statuses for the quote are defined by your company. Some of the statuses companies often use include Approved, Rejected, Expired, Placed, and Active.</p>
Effective As Of	<p>Defaults to the created date. You can change this, if appropriate.</p>
Effective Through	<p>Defaults to the effective date plus 30 days. You can change this if the quote will be available for a different length of time.</p>
Currency	<p>Displays the default currency for the quote.</p>

3 Enter the following information in the new record:

Field	Comments
Name	<p>Enter a name for the quote. If you do not enter a name, the quote number is assigned as the name.</p>
Price List	<p>Enter a price list to be used for the quote, if one is not assigned automatically through association with the account. Available price lists are restricted by the currency associated with this quote.</p>
Discount	<p>(Optional.) Enter a Override Policy Discount discount for this quote. This discount will be used instead of any pricing rules associated with a price list. For more information, see “Applying a Manual Discount” on page 140.</p> <p>NOTE: If you created the quote from the Quotes views of the Opportunity, Account, or Contact screen, you must drill down on the quote name to the quote in the Quotes screen to view this field of the Quote record.</p>
Opportunity	<p>(Optional.) Select an opportunity associated with the quote. The account associated with opportunity is automatically inserted.</p> <p>NOTE: If you created the quote from the Quotes views of the Opportunity, Account, or Contact screen, you must drill down on the quote name to the quote in the Quotes screen to view this field of the Quote record.</p>

Field	Comments
Account	Select the account with which the quote should be associated, if one has not been entered automatically. NOTE: If you created the quote from the Quotes views of the Opportunity, Account, or Contact screen, you must drill down on the quote name to the quote in the Quotes screen to view this field of the Quote record.
Last Name and First Name	Select the contact for this quote, if one has not been entered automatically. NOTE: If you created the quote from the Quotes views of the Opportunity, Account, or Contact screen, you must drill down on the quote name to the quote in the Quotes screen to view this field of the Quote record.
Due	(Optional.) Enter a due date for the quote. NOTE: If you created the quote from the Quotes views of the Opportunity, Account, or Contact screen, you must drill down on the quote name to the quote in the Quotes screen to view this field of the Quote record.

Using Auto Quote from an Opportunity

If sales representatives are working with an opportunity where the products have already been specified, they can save time by using the Auto Quote button of the Opportunities screen to generate the quote.

Products are automatically copied from the opportunity to the quote when the Auto Quote check box for the product is selected. When end users create opportunities, they use the Product view of the Opportunity screen to specify products for the opportunity. When they add a product to this list, the Auto Quote check box is automatically selected, but they can exclude a product from a quote by clearing this check box.

This task is a step in [“Process of Creating a Quote” on page 121](#).

To use Auto Quote

- 1 Navigate to the Opportunities screen, then the Opportunities List view.
- 2 Click the name of the opportunity for which you want to generate a quote.
- 3 Click the Quotes view tab.
- 4 In the Quotes list, click Auto Quote.

A new quote record appears. The products from the opportunity are copied into the quote.

- 5 Fill in the Name and Price List fields for the quote.

Performing Common Tasks for Creating Quotes and Sales Orders

After starting the quote, you must enter all the information associated with it. Because the tasks for entering this information are the same whether you are creating a quote or an order, they are covered in [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

This task is a step in [“Process of Creating a Quote” on page 121](#).

Verifying a Quote

In your company, quotes may be verified manually or may be verified automatically through a custom workflow process. Salespeople should check with the application administrator to find out how the verification process is handled in your company and whether they should verify quotes manually.

This task is a step in [“Process of Creating a Quote” on page 121](#).

Salespeople can also verify quotes while working with them. For example, they can verify a quote after changing it, to see if the change has introduced errors.

When an end user verifies a quote manually, the application:

- Verifies that the price list is valid. This includes checking that:
 - The price list exists in the dialog box
 - The price list starts before the quote’s start date and ends after the quote’s end date (if the quote start date and end date exist)
- Verifies that the products in the quote’s line items are valid. This includes checking that:
 - The product exists in the dialog box
 - The product starts before the quote’s start date and ends after the quote’s end date (if the quote start date and end date exist)
 - The product has valid attributes
 - The product has the correct list price
- Checks to see if a configurable product has been added. If it has, verifies that all required components are included
- If a purchase order has been entered as a payment type, checks the customer’s credit status,

To verify a quote manually

- 1 Navigate to the Quotes screen, then the Quotes List view.
- 2 In the Quotes list, click the name of the quote you want to verify.
- 3 Click the Line Items view tab.

- 4 In the Quote header, click Verify.

Your Siebel Business Application checks the validity of the products, price lists, and totals shown in the quote. When verification is complete, the application displays a message. Any problems in the quote are detailed.

Use the following procedure to manually verify a quote line item.

To verify a quote line item manually

- 1 Navigate to the Quotes screen, then the Quotes List view.
- 2 In the Quotes list, click the name of the quote you want to verify.
- 3 Click the Line Items view tab.
- 4 In the Quote header, click Verify.

Your Siebel Business Application checks the validity of the products and price lists for the line item and the customer's eligibility to purchase the line item. When verification is complete, the application displays a message. Any problems in the line item are detailed.

Process of Creating a Sales Order That Is Not Based on a Quote

This section describes how to create a new order that is not based on a quote.

NOTE: If you have already created a quote, create the order by converting that quote to an order, rather than by using the procedures in this section. The order automatically includes all the details from the quote, so you do not have to reenter them. For more information, see [“Converting a Quote to an Order” on page 190](#).

Creating an order that is based on a quote allows you to verify the quote to check for any errors. If you are creating a complicated order that might have errors, you should do it by creating quote, verifying the quote, and then converting the quote to an order. For more information, see [“Process of Creating a Quote” on page 121](#).

To create an order that is not based on a quote, perform the following tasks:

- 1 [“Starting an Order” on page 127](#). You can create a new order record from a number of screens.
- 2 [“Performing Common Tasks for Creating Quotes and Sales Orders” on page 128](#). Because the remaining tasks for entering information about the order are the same whether you are creating a quote or an order, they are covered in [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).
- 3 [“Submitting an Order” on page 128](#). When the customer is ready to place the order, the end user submits the order. For more information, see [“Submitting an Order” on page 194](#).

Starting an Order

This section describes how to start a new order from a number of screens:

- If you start the order from the Account, Service Request, Project, Contact, Campaign, or Contract screen, your Siebel Business Application automatically copies information from that screen into the order.
- If you start the order using the Orders screen, you must enter all this information manually.

This task is a step in [“Process of Creating a Sales Order That Is Not Based on a Quote”](#) on page 126.

For information about how to start an order based on an existing asset, see [Chapter 13, “Using Asset-Based Ordering.”](#)

To start an order

- 1 Perform one of the following tasks, depending on which screen you want to start the order from:
 - To start an order from the Orders screen, navigate to the Sales Orders screen, then the List view.
 - To start an order from a quote, account, service request, project, contact, campaign, or contract, navigate to the screen for the object and to the list view, drill down on the name of the record with which the order will be associated, and click the Orders view tab.

NOTE: If you start the order from a record that has account, contact, or other information, your Siebel Business Application copies the relevant information into the order.
- 2 In the Orders list, add a new record. The information in the following table is added automatically.

Field	Comments
Order #	Displays a unique system-generated number assigned to the order when the order is created.
Status	New orders are assigned the status Pending. The status can be changed later, as the order process continues. Some of the statuses companies often use for sales orders include Open, Awaiting Approval, Approved, Complete, Booked, In Transit, Shipped, and Cancelled.
Status as of Date	Initially, reflects the current date and time. When the status is changed, this field also updates to show the date and time when the status changed. NOTE: If you created the order from some screen other than the Sales Orders screen, you must drill down on the order name to display the order in the Orders screen to view this field.
Priority	The priority of the order. New orders are assigned the priority Medium.
Order Date	The date and time the order was created.

Field	Comments
Version	The version associated with the order. When the order is created, this value is typically 1. The number is incremented every time the order is revised. For details see “Revising an Order” on page 197 .
State	The state of the order. For example: open, closed, pending. Note that this may not be the same as status.

- 3 In the Type field, select the type of order you are creating.
- 4 If you are in the Orders list at the bottom of the Accounts screen, Quotes screen, Service Request screen, or another screen, drill down on the order number to display the Order screen.
- 5 In the Sales Order form, click the Show More button.
- 6 In the Sales Order form, review the information that has been copied into the order, and make any changes to it, as appropriate. Some fields are described in the following table.

Field	Comments
Last Name	Select the contact for this order, if it has not been entered automatically.
Account	Enter the account to which this order will be sold, if it has not been entered automatically.
Site	When an account has more than one address, select the correct address for this order.
Currency	Select the currency for the order.
Price List	Select a the price list associated with this account. Price lists that can be assigned to this order are restricted by the currency.

Performing Common Tasks for Creating Quotes and Sales Orders

After you start the order, you must enter all the information for it. Because the tasks for entering this information are the same whether you are creating a quote or an order, they are covered in [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

This task is a step in [“Process of Creating a Sales Order That Is Not Based on a Quote” on page 126](#).

Submitting an Order

When the customer is ready to place the order, the end user submits the order. This task is a step in [“Process of Creating a Sales Order That Is Not Based on a Quote” on page 126](#).

For information about how to submit an order, see [“Submitting an Order” on page 194](#).

Common Tasks for Creating Quotes and Sales Orders

After you create either a quote or an order record, complete the following common tasks:

- 1 [“Adding Line Items to a Quote or an Order” on page 129](#)
- 2 [“Working With Line Items of Quotes and Orders” on page 135](#)
- 3 [“Selecting a Nondefault Price List” on page 137](#)
- 4 [“Viewing and Recalculating Prices” on page 138](#)
- 5 [“Applying a Manual Discount” on page 140](#)
- 6 [“Adding Shipping Information” on page 150](#)
- 7 [“Calculating Shipping Charges” on page 151](#)
- 8 [“Calculating Taxes” on page 151](#)
- 9 [“Checking Availability to Promise \(ATP\)” on page 152](#)
- 10 [“Entering Payment Information for Quotes or Orders” on page 154](#)

Adding Line Items to a Quote or an Order

Users can add products to a quote or order as line items in the following ways:

- [“Adding Multiple Items at One Time” on page 129](#)
- [“Adding Line Items One at a Time” on page 130](#)
- [“Adding Line Items by Browsing the Catalog” on page 130](#)
- [“Adding Line Items by Using a Favorite” on page 131](#)
- [“Adding Line Items Using Siebel Advisor” on page 132](#)
- [“To add a write-in product” on page 133](#)
- [“Adding a Package Line Item” on page 133](#)
- [“Adding a Service Product to a Quote or Order” on page 134](#)

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

Adding Multiple Items at One Time

The Add Items feature allows an end user to add multiple items at one time and to specify the quantity and attributes for those items at the same time.

NOTE: Your company can set a flag in Siebel Tools to show only the products in the selected price list. For more information, see *Using Siebel Tools*.

To add a product to a quote or order using Add Items

- 1 Navigate to the quote or order to which you want to add items.
- 2 In the Line Items list, select Add Items from the menu.
- 3 In the Pick Products dialog box, select the products to add to the quote.
 - a Enter the quantity in the Order Qty field for the products you want to add and click Add.
 - b To specify attributes for a product, click Attributes in the link bar and specify the attributes in the Line Item Attributes list.
 - c When you are finished specifying product quantity and attributes, click OK.

The products appear in the Line Items list.

Adding Line Items One at a Time

The New Record menu option allows an user to enter one record at a time. This method is useful when the end user already knows the product name.

To add items one at a time

- 1 Navigate to the quote or order to which you want to add items.
- 2 In the Line Items list, click New.
- 3 In the Line Items list, in the Product field, select the product.
- 4 Make any necessary changes to the quantity or attributes.

Adding Line Items by Browsing the Catalog

While end users are creating quotes or orders, they can select products by browsing the product catalog. Some products may also have deals associated with them, which the end user can select to obtain special pricing for a customer.

For more details about working with the Catalog, see ["About Dynamic Product Catalogs" on page 103](#).

To browse the catalog to add line items

- 1 Navigate to the quote or order to which you want to add items.
- 2 Click the Catalog view tab.
- 3 In the Browse list, click one of the Categories.

The products in that category appear.
- 4 If you want to select a simple product with attributes, you can modify the values of the attributes in the Items list.

Modifying attributes in the catalog is optional. You can also select attributes after adding the product as a line item.

- 5 Click Add Item to add a product.

Adding Line Items by Searching the Catalog

While end users are creating quotes or orders, they can select products by browsing the product catalog. Some products may also have deals associated with them, which the end user can select to obtain special pricing for a customer.

For more details about working with the Catalog, see [“About Dynamic Product Catalogs” on page 103](#).

To search the catalog to add line items

- 1 Navigate to the quote or order to which you want to add items.
- 2 Click the Catalog view tab.
- 3 In the Catalog view link bar, click Search.
- 4 In the Search form, use the drop-down list to select the product family that you want to search. The search fields are displayed that are appropriate for that product family.
- 5 Enter criteria in one or more search fields, and click Search.
- 6 In the Products list, select a desired product.
- 7 If this product has attributes, select the values of the attributes in the Product Attributes list below the Products list.

Selecting attributes in the catalog is optional. You can also select attributes after adding the product as a line item.
- 8 In the Products list, click Add Selected Items.

Adding Line Items by Using a Favorite

Product selection favorites are groups of products and attributes that have been saved for reuse:

- Some product selection favorites are public, and are available to anyone using the Siebel Business Application. Public templates are created by the product administrator.
- Other product selection favorites are private, and are available only to a specific user. Private favorites are templates that end users create for themselves.

When the end user adds a favorite, the items and associated attributes are copied into the quote or order as line items. The end user can make any additional changes to the line items, such as configuring a product with attributes or components.

For information about creating favorites, see [“Creating Product Selection Favorites” on page 34](#).

To add a favorite to the current quote or order

- 1 Navigate to the quote or order to which you want to add items.
- 2 Click the Catalog view tab.
- 3 In the Catalog view link bar, click Favorites.

- 4 To quickly add a product, enter the information in the Product Name or Part Number text box, and click Add Item.
- 5 Alternatively, add items using the Favorites list:
 - a In the Favorites list, select a record.

The line items in the favorite are displayed in the Products list, below the favorites list.
 - b Select one or more products in the Favorites list.
 - c If a product has attributes, select the values of the attributes in the Product Attributes form below the Products list.

Selecting attributes in the catalog is optional. You can also select attributes after adding the product as a line item.
 - d Click Add Selected Items.

Use the following procedure to create a private product template.

To create a private product template

- 1 Make sure the current quote or order contains the line items you want to save in the favorite.
- 2 In the Quote or Order header summary form, from the menu select Save As Favorite.
- 3 In the Save As Template dialog box, enter a name for the template and click Save.

The items in the quote or order are saved as a private template.

NOTE: If two quote items have same integration id, only one quote item is copied to private product template.

Adding Line Items Using Siebel Advisor

Siebel Advisor helps customers find products that meet their requirements. For information about setting up Advisor applications, see *Siebel Interactive Designer Administration Guide*.

When a sales representative user starts Advisor, a list of questions to help identify the appropriate solution for the customer appears. Depending on the information that the sales representative enters, Advisor displays a recommended product that can be added to a quote or order.

If a product has attributes, then the end user can make changes to the product.

To use Advisor to add line items

- 1 Navigate to the quote or order to which you want to add items.
- 2 Click the Catalog view tab.
- 3 In the Catalog view link bar, click Get Advice.
- 4 In the Advisors list, click the name of one of the available Advisor options.
- 5 Read and answer the needs analysis questions.
- 6 Click Add Items to add the product as a line item.

Adding Write-In Products

An end user can also create and add a write-in product for items that are not included in the price list.

To add a write-in product

- 1 Navigate to the quote or order to which you want to add the product.
- 2 In the Line Items list, click New.
- 3 In the Product field, click the Select button.
- 4 In the Pick Product dialog box, in the Starting With text box, type *Write* and then click Go.
A product named Write-In Product is entered as a line item.
- 5 Enter the price and other information for this product in the Line Item record.
You can enter the price in the Manual Price Override or Manual Discount Amount field.
- 6 In the Item Details view, in the Comment field, enter the product's name or description.

Adding a Package Line Item

The end user can use the Line Items list to create a group of products identified as a *package*. The package price is the rolled-up price of all the products in the group. This is useful when the end user wants to give a price break to a customer based on the purchase of two or more items.

To add a package line

- 1 Navigate to Line Items view for the quote or order where you want to create the package.
- 2 In the Line Items list, add all the line items that you want to include in the package.
- 3 Select all the line items that you want to include in the package.
- 4 From the Line Items menu, select Package.

All the selected items are added to the package. A new line item record named Package is added, and the selected line items are indented below it to show that they are part of the package.

Use the following procedure to remove products from a package.

To remove products from a package

- 1 Navigate to Line Items view for the quote or order that contains the package.
- 2 In the Line Items list, select one or more products that are part of a package.
- 3 From the Line Items menu, select Unpackage.

The selected items are removed from the package and are no longer indented. If you selected all the items in the package, the line item named Package is deleted.

Adding a Service Product to a Quote or Order

Service products are generally associated with a physical product. For example, a warranty extension for a new computer would be set up as a service product.

When an end user adds a service product to a quote or order, the price of the service product is based on its list price plus a percentage based on a service method. The price, percentage, and service method are all specified in the price list for the service product. The service method specifies how the service price is calculated.

For example, if the list price of a service product is \$100, the service method is Net Price (of the covered product) and the percentage is 10, then the price of the service will be \$100 (its own list price) plus 10 percent of the net price of the product with which it is associated.

You use different methods for adding service products to a quote and to an order.

To add a service product to a quote

- 1 Navigate to the quote to which you want to add a service product.
- 2 Click the Line Items view tab.
- 3 In the Line Items list, select the line item for the covered product for which you want to add a service product.
- 4 From the Line Items menu, select Service.
- 5 In the Pick Sales Service Product dialog box, select the appropriate service product and click OK.
The product is added to the Line Items list and the total price appears in the Totals form.

Use the following procedure to add a service product to an order.

To add a service product to an order

- 1 Navigate to the order to which you want to add a service product.
- 2 Click the Line Items view tab.
- 3 In the Line Items list, add the product with which the service product will be associated.
- 4 In the Line Items list, add a record for the service product.
 - a In the Product field, enter the name of the of service product.
The base price of the service product appears.
 - b In the Covered Product field for the service product, click the select button.
NOTE: The Covered Product field can only be edited when the line item is a service product. For other products, this field is read-only.
 - c In the dialog box, select the physical product with which this service product is associated and click Add.
The price now reflects the service method and percentage, as well as the base price.

Working With Line Items of Quotes and Orders

After adding products to a quote or order as line items, users may need to work with the line items in the following ways:

- [“Viewing the Price Waterfall” on page 135](#)
- [“Deleting a Line Item” on page 135](#)
- [“Customizing a Product” on page 135](#)
- [“Changing Component Quantities” on page 136](#)

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

Viewing the Price Waterfall

The end user can view a *price waterfall*, which displays all the steps that went into the calculation of the line item, beginning with the start price and listing all the discounts, markups and final price.

The waterfall can be used to answer customers' questions about how prices were calculated.

To view a price waterfall

- 1 Navigate to the quote or order.
- 2 In the Line Items list, click the net price of a line item.

A waterfall dialog box appears, listing all the steps in determining that net price.

Deleting a Line Item

Sometimes an end user may need to delete a line item to remove a product from a quote or an order.

NOTE: To delete a component of a product with components, the end user must do so in the configuration session. The end user cannot delete a component by deleting a record in the line items list, as described in the following procedure.

To delete line items

- 1 Navigate to the quote or order.
- 2 In the Line Items list, select the item.
- 3 Click Delete.

Customizing a Product

End users can customize some products in a quote or order by selecting their components. For instance, if a customer is buying a computer, the customer can select components such as the type of monitor, hard drive, and so on. To create the quote or order, the end user first adds the computer system as a product line item, and then customizes it using Siebel Configurator.

The end user can tell when a product can be configured because the Customize button is enabled when the product record is selected. When a customizable product has components, the end user can expand the item to see the components included in the customizable product.

For more information about customizable products, see *Siebel Product Administration Guide*.

NOTE: The customize feature is only available if you have licensed Siebel Configurator.

To customize a product

- 1 Navigate to the quote or order that contains the product that you want to configure.
- 2 In the Line Items list, select the line item that contains the product with components, or add a new record for a product with components.
- 3 With the customizable product selected, click Customize to start a configuration session.
- 4 In the selection pages, check to see that the item is configured correctly and make any necessary or desired changes.
- 5 If you are working in a quote, click the menu button in the quote header and then click Verify.

NOTE: When you choose the Verify menu option in a quote, the quote is verified as complete or incomplete. Part of the verification process checks to see whether the product with components is incomplete. If you removed an item from the product with components that is part of the minimum configuration, you must click Configure again to launch another configuration session and add it back in.

Changing Component Quantities

A customer might want to order a different number of components than what is set as the default in a product with components.

Typically, end users change the quantity of a component in the configuration session that starts when they click the Customize button in the Line Items list. When an end user clicks Customize, Siebel Configurator checks all configuration rules to make sure that the change in quantity is appropriate.

Your company can decide to allow changes to component quantities directly in the Line Items list in the quote or order. For this to occur, a user property must be set in Siebel Tools. For more information, see [“Configuration with Siebel Tools” on page 38](#).

When this user property has been set, the Qty field in line item for components of products with components is editable. If the Qty field is read-only, then this user property has not been set.

Selecting Product Attributes for Line Items

Some products have attributes that the end user can choose. For example, a shirt may have the attribute of size, with the possible values S, M, L, and XL.

If the product has both components and attributes, then the user selects both the attributes and components during the configuration session, as described in [“Customizing a Product” on page 135](#).

If the product is a simple product with attributes, meaning that it has attributes but does not have components, then the user can either:

- Select the attributes within the catalog, before adding the product to the quote or order, as described in [“Adding Line Items by Browsing the Catalog” on page 130](#) and [“Adding Line Items by Searching the Catalog” on page 131](#).
- Select the attributes for the line item, after adding the product to the quote or order, as described here.

To select attributes for a line item

- 1 Navigate to the line item.
- 2 In the link bar of the Line Items view, click Attributes.
- 3 In the Line Items list, select the line item whose attributes you want to choose.
- 4 In the Line Items Attributes list (below the Line Items List), specify the values for the attributes, as described in the following table.

Field	Description
Name	Displays the name of the attribute
Value	Select the value of the attribute
Action	Displays the action code for the line item. For more information about action codes, see “Action Codes” on page 205 .
Data Type	Displays the data type of the attribute. For example, if the user chooses yes or no, then the data type of the attribute is boolean; if the user chooses among options that are written out, then the data type of the attribute is text.

Selecting a Nondefault Price List

When products are added to a quote or order, their prices are based on the price list associated with the order. The default price list is typically based on the account, but sales representatives can also select a different price list in the quote or order.

For more information about price lists, see *Siebel Pricing Administration Guide*.

To select a nondefault price list

- 1 Navigate to the quote or order.
- 2 In the Quote form or the More Info form, in the Price List field, select a price list.

Viewing and Recalculating Prices

The user can view the prices many times while developing a quote and order.

Prices are recalculated automatically when the user performs certain actions. The user can also recalculate prices manually at any time, to see the latest price.

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#)

This section describes how the user can view and recalculate prices. It includes the following topics:

- [“Factors That Impact Prices” on page 138](#)
- [“When Prices Are Recalculated” on page 138](#)
- [“When to Manually Recalculate Prices” on page 139](#)

Factors That Impact Prices

The prices for quotes and orders are based on:

- **Price list.** Determines the list price for each product and the promotional prices for products that have them. For information about setting up price lists, see *Siebel Pricing Administration Guide*.
- **System-based policy discounts.** Discounts and markups that are applied automatically, such as volume discounts and deals associated with the account contacts. For information about setting up these policy discounts, see *Siebel Pricing Administration Guide*.
- **Manual discounts.** Discounts that are applied manually by sales representatives while they are placing an order, in addition to the system discounts that are defined by the pricing administrator and applied automatically. For information about manual discounts, see [“Applying a Manual Discount” on page 140](#).
- **Shipping charges.** Determined by the shipping carrier and method indicated on the Fulfillment view tab for the quote or order. For information about shipping charges, see [“Calculating Shipping Charges” on page 151](#).
- **Taxes.** Calculated on each line item in the quote or order. For information about taxes, see [“Calculating Taxes” on page 151](#).

When Prices Are Recalculated

Prices in a quote or order are automatically recalculated:

- Each time the end user adds an item to a quote or order
- When the end user changes the quantity for a line item
- When the end user changes the price list in the header
- When the end user verifies a quote
- When the end user adds a service product associated with a covered product

NOTE: Line items are excluded from repricing when the Override Policy Discount field is selected. This field is selected when the end user applies a manual discount to the line item. For more information, see [“Applying a Manual Discount” on page 140](#). If a user wants a line item to be included in a repricing calculation, the user must be sure that the Override Policy Discount field is not checked.

When to Manually Recalculate Prices

At times when prices are not automatically recalculated, end users can manually reprice an individual line item or all line items.

End users should reprice individual line items when they have changed a parameter at the line level (other than product or quantity) that could affect price.

End users should reprice all line items when:

- They want to have a bundle or aggregate-type pricing rule triggered.
- They have changed a field on the quote or order that may affect the price. For example, changing the account might result in using different pricing factors that are associated with account.

NOTE: If a quote or order included a product with components, then if you reprice one of the component products, the parent product with components is automatically repriced. For example, if the quote or order includes a computer that is a product with components and includes the monitor, mouse, and keyboard that are components of this product, then if you reprice one of the components, the entire computer is also repriced.

To reprice an individual line item

- 1 Navigate to the quote or order.
- 2 In the Line Items list, select the line item.
- 3 In the Line Items list menu, select Reprice.

Use the following procedure to reprice all line items.

To reprice all line items

- 1 Navigate to the quote or order.
- 2 From the Line Items list menu, select Reprice All.

Applying a Manual Discount

The net price of a line item in a quote or order is determined by:

- **Start Price.** The calculation begins with the start price, which is typically the list price or promotional price of the product in the price list. Attribute adjustments and customizable product adjustments affect the start price.
- **Policy Discounts.** The application applies discounts such as promotions, contract prices, and volume discounts.
- **Manual Discounts.** The salesperson applies manual discounts. End users can enter manual discounts for individual line items or for the entire quote or order.

For more information about start price and policy discounts, see *Siebel Pricing Administration Guide*.

When users work with pricing information, they can use the fields and button listed in [Table 22](#).

Table 22. Working with Pricing in Quotes and Orders

Field Name	Comments
Policy Discounts field	Displays a money amount equal to the sum of the discounts that the application has applied automatically, including promotional discounts, contractual discounts, volume discounts, and so on.
Manual Discounts field	Displays a money amount equal to the manual discount that the user applied in one of the manual discount fields (Manual Discount Amount, Manual Discount %, Manual Price Override)
Net Price field	If licensed for Siebel Dynamic Pricing, in the Discount Negotiation view, the end user can click the Net Price field to display a pricing waterfall that shows how all the adjustments were used to calculate the net price. The net price is the final price arrived at after applying all discounts to the start price.
Manual Discount Amount field	The end user can enter a manual discount amount for a line item. (The three fields that apply discounts to individual line items, Manual Discount Amount, Manual Discount % and Manual Price Override, are mutually exclusive. The end user can only use one of them.)
Manual Discount % field	The end user can enter a manual discount percentage for a line item.
Manual Price Override field	The end user can specify an override price for the line item. This price is used as the net price for the line item. Specifying a value in this field overrides any applicable policy discounts.
Discount field	In the Discount field of the quote or order header, the end user can enter a discount percentage in the that applies to all the line items in the quote or order. However, this does not apply if you enter a manual discount for the line item, which overrides the discount entered in the header.

Table 22. Working with Pricing in Quotes and Orders

Field Name	Comments
Header Discount Amount	<p>If you enter a percentage in the Discount field of the header, this field of the Line Item record displays a money amount equal to the value of the header Discount for this line items. This field is read only on the line item.</p> <p>To display this field, you may have to select Columns Displayed from the Line Items list menu.</p>
Margin % field	<p>Displays the profit margin at the current price. The margin is calculated as $(\text{Net Price} - \text{Cost}) / \text{Net Price} * 100\%$</p>
Spread Discount Button	<p>In the totals form for the Line Items, the user can click the Spread Discount button and enter a total discount amount, percent, or target total for the entire quote or order. The discount will be spread among the line items.</p> <p>NOTE: This is the best practice for entering a discount for the entire quote or order. It is recommended that end users do this instead of using header Discount field.</p>
Override Policy Discount field	<p>Selecting this check box overrides any policy discounts such as volume discounts and contractual discounts, generated by the application. The system does not apply policy discounts to that line item. Discounts depend only on manual discounts. Use this flag if you want the Manual Discount Amount or Manual Discount % to replace the policy discounts rather than being applied in addition to the policy discounts.</p> <p>This flag is deselected by default. Whenever the user selects or deselects this flag, the item is repriced.</p> <p>In earlier releases, this field was named Keep Discount.</p>

These discounts are applied by the default pricing procedures, which may be modified to change the way the net price is calculated. For more information, see the workflow and Pricing Procedure reference in *Siebel Pricing Administration Guide*.

The following sections discuss the different ways an end user can enter a manual discount:

- [“Entering a Manual Discount for an Individual Line Item” on page 142.](#)
- [“Spreading a Manual Discount Across Line Items” on page 142](#)
- [“Using Discount Negotiations View” on page 146](#)

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129.](#)

Entering a Manual Discount for an Individual Line Item

End users can apply manual discounts to individual line items.

To enter a manual discount for an individual line item

- 1 Navigate to the quote or order with which you want to work.
- 2 In the Line Items list, select the line item to which you want to apply a discount.
NOTE: You can also apply a manual discount to an individual component of a configurable product.
- 3 Click the Line Item Detail view tab, below the Line Items list.
- 4 In the Line Item Detail form, enter information in one of the fields described in the following table:

Field	Comments
Manual Discount %	Enter a number that is subtracted from the price as a percentage discount. For example, if you enter 10, a 10% discount is subtracted from the net price.
Manual Discount Amount	Enter a number that is subtracted from the net price as an absolute amount. For example, if you enter 10, a \$10 discount is subtracted from the net price (assuming that the price is in dollars).
Manual Price Override	Enter a number that is used as a discount price that overrides the net price. For example, if you enter 10, the discount price for the line item is \$10 net price (assuming that the price is in dollars). Specifying a value in this field overrides any applicable policy discounts.

NOTE: These fields are mutually exclusive, so you can only enter a value in one of them.

Spreading a Manual Discount Across Line Items

You can enter a manual discount that is spread across all line items in two ways:

- [Using the Discount field in the Header](#)
- [Using the Spread Discount Button](#)

Using the Discount field in the Header

The Discount field allows you to enter a percentage discount to line items for quotes and orders.

If you enter a discount by using this field and then enter a manual discount for the line item, using the line item's Manual Discount Amount, Manual Discount %, or Manual Price Override field, the line-item level manual discount overrides the discount entered in the header Discount field.

If you use the Discount field, the discount applies to all products of any price type. That is, it applies to products with the price type One-Time, Recurring and Usage. When you use this field, be careful that it does not create undesired discounts for products with the price type Recurring or Usage.

To enter a percent discount at the header level for line items of a quote or order

- 1 Navigate to the Quotes or Orders screen, locate the quote or order with which you want to work, and drill down on the Name hyperlink for the quote or order.
- 2 In the Quote or Order header, click the Show More button, and in the Discount field, select or enter the discount (a percentage value) that you want to apply to the line items in the quote.
- 3 Add the products that receive this discount. For information about adding products, see [“Adding Multiple Items at One Time” on page 129](#).

Using the Spread Discount Button

End users can also click the Spread Discount button and:

- Enter a discount amount discount percent, or target price.
- Spread this discount across all line items, across selected line items, or across line items of a particular type (products, services, or training).

If you enter a discount amount or target total price, the discount is spread across the line items in proportion to the total price selected as source, which could be list price or net price.

Spread Discount updates the Manual Discount Amount field on a line item, unless the line item already has a Manual Price Override specified, in which case it updates the Manual Price Override.

The spread discount can apply to hierarchical products and services. For example, a computer is a product made of many components. If a customer buying twenty computers gets a discount, you can enter the discount for the entire quote. When you click Spread, the discount will be spread among the twenty computers and among the components of each computer.

The discount is spread across products with the price type One-Time. Spread discount does not involve products with the price type Recurring and Usage. The Current Total field on the popup applet shows the total of all selected products with the One-Time price type.

There is special behavior for the current total field, when the discount is applied to customizable Products and their components. For example, assume quote contains a customizable product which has 10 component products. The end user selects the root customizable product and two of the component products, and then clicks Spread Discount. The current total field on the popup applet shows the total net price of the customizable product and all of its components, not just the total of just the three items that were selected.

Maximum and minimum prices are honored while spreading the discount; this behavior can be configured.

Spread Discount honors minimum prices. It discounts a line item until the minimum price is reached. Then it recalculates and spread the remaining discount amongst the other line items.

If you enter a Discount Amount or Target Total, Spread Discount first calculates a weighted average before distributing discounts. It calculates the weighted average as follows:

- If the Source is List Price:
 - $\text{Weighted Average} = \text{Line Item List Price} / \text{Total List Price}$
 - $\text{Manual Discount Amount} = \text{Weighted Average} * \text{Discount Amount}$

- Source = Net
 - Weighted Average = Line Item Net Price / Total Net Price
 - Manual Discount Amount = Weighted Average * Discount Amount

If the spread discount type is Selected Items and one of the selected items is the root of a product with components, the discount percent applies to or the discount amount is spread across the entire instance of the selected product with components.

To spread discounts across quote or order line items

- 1 Navigate to the desired quote or order.
- 2 Click the Line Items view tab.
- 3 To spread the discount among selected items, select multiple items in the Line Items list.
- 4 In the Totals form under the Line Items list, click Spread Discount.
- 5 To spread the discount among items that are a specific product type, select that type in the Product Type drop-down list.
- 6 In the Spread Discount dialog box, complete the necessary fields and click Spread. Some fields are described in the following table:

Field	Comments
Type	Select which items to which you want to spread the discount. The options are: <ul style="list-style-type: none"> ■ Entire Document. Spreads discount among all the line items. This is the default if items are not multi-selected. ■ Selected Items. Spreads discount among the selected line items. ■ Product. Spreads discount among all line items that are products. ■ Service. Spreads discount among all line items that are services. ■ Training. Spreads discount among all line items that are training.
Current Total	Displays the quote total before the spread discount is applied, if the type is Entire Document. Displays the total of the selected items before the spread discount is applied, if the type is Selected Items. If one of the selected items is a customizable product, displays the total for the entire customizable product, not just for components that are selected.

Field	Comments
Source Price Field	<p>Select List Price or Net Price to determine how the discount is calculated.</p> <p>If you are using a Discount Percent, it is calculated as follows:</p> <ul style="list-style-type: none"> ■ Source = List Price <ul style="list-style-type: none"> ■ Manual Discount Amount (MDA) = Previous MDA + (Discount Percent * List Price) ■ Net Price = Net Price – (Discount Percent * List Price) ■ Source = Net Price <ul style="list-style-type: none"> ■ Manual Discount Amount (MDA) = Previous MDA + (Discount Percent * Net Price) ■ Net Price = Net Price – (Discount Percent * Net Price) <p>If you are using a Discount Amount, it is calculated as follows:</p> <ul style="list-style-type: none"> ■ Source = List Price <ul style="list-style-type: none"> ■ Manual Discount Amount (MDA) = Previous MDA + ((List Price/ Total List Price) * Discount Amount) ■ Net Price = Net Price – ((List Price/Total List Price) * Discount Amount) ■ Source = Net Price <ul style="list-style-type: none"> ■ Manual Discount Amount (MDA) = Previous MDA + ((Net Price/ Total Net Price) * Discount Amount) ■ Net Price = Net Price – ((Net Price/Total Net Price) * Discount Amount) <p>If you are using a Target Total, it is calculated as follows:</p> <ul style="list-style-type: none"> ■ Source = List Price <ul style="list-style-type: none"> ■ Manual Discount Amount (MDA) = Previous MDA + ((List Price/ Total List Price) * (Current Total – Target Total)) ■ Net Price = Net Price – ((List Price/Total List Price) * (Current Total – Target Total)) ■ Source = Net Price <ul style="list-style-type: none"> ■ Manual Discount Amount (MDA) = Previous MDA + ((Net Price/ Total Net Price) * (Current Total – Target Total)) ■ Net Price = Net Price – ((Net Price/Total Net Price) * (Current Total – Target Total))
Discount Amount	<p>Enter the total amount of the discount. This amount will be subtracted from the current total and spread among the line items. (If you enter this, you may not enter a Discount Percent or Target Total.)</p>

Field	Comments
Discount Percent	Enter a percent discount. This discount will be applied to the line items. It applies to the source specified in the Source Price field, but it updates the net price. (If you enter this, you may not enter a Discount Amount or Target Total.)
Target Total	Enter the total price for the quote after the discount. The difference between the current total and the target total will be spread among the line items. (If you enter this, you may not enter a Discount Amount or Discount Percent.)

After you click Spread, your Siebel Business Application performs the spread and enters unit net price and discount amount for each line item. If the line items previously had individual discounts, they are updated based on this spread.

Using Discount Negotiations View

If you have licensed Siebel Dynamic Pricing, the end-user can use the Discount Negotiations view as a dashboard for negotiating discounts, gaining visibility into prices, and communicated those prices and discounts to customers.

Some key features of the line items list in the Discount Negotiation View include:

- **Pricing Waterfall.** In the discount negotiation view, the user can click the Net Price field to display the net price waterfall, which shows all adjustments that were applied to arrive at the final net price
- **Margin % field.** Displays the profit margin for the line item. This is calculated as $(\text{Net Price} - \text{Cost}) / \text{Net Price} * 100\%$
- **Other key features.** The Discount Negotiation form provides sales users with referential price data, actionable price and discount data, as well as a quick view of how the net price was calculated.

The following fields in the discount negotiation form provide end users with data useful for negotiating discounts:

- Referential Pricing Data:
 - **Cost.** The cost of the product from the price list
 - **List Price.** The list price of the product from the price list
 - **Minimum Price.** The floor price of the product as set by Product or Pricing Administrators in the Price List.
 - **Maximum Price.** The ceiling price of the product as set by Product or Pricing Administrators in the Price List.
 - **Current Volume Discount.** The current volume discount that has applied to the line item, if applicable
 - **Next Volume Discount.** The next volume discount that would apply if to the line item if the quantity were incremented to meet the next volume discount requirements

- **Upsell.** Upsell message for next volume discount quantity break.
- **Margin %.** Displays the profit margin for the line item. This is calculated as $(\text{Net Price} - \text{Cost}) / \text{Net Price} * 100\%$
- **Line Discount %.** Displays the total discount % for the line item. This is calculated as $(\text{Total Line Discounts} / \text{Net Price}) * 100\%$
- Actionable Pricing and Discount Data:
 - **Price List.** Allows the user to choose a price list for the line item that may differ from the price list on the header
 - **Currency.** Allows the user to choose a currency code for the line item that may differ from currency on the header. This allows the sales user to quote individual line items on the same quote or order in different currencies.
 - **Entitlement.** Allows the user to associate a pricing entitlement with the line item.
 - **Promotion.** Allows the user to associate a promotion with the line item.
 - **Manual Discount Amount.** The end user can enter a manual discount amount for a line item. (The three fields that apply discounts to individual line items, Manual Discount Amount, Manual Discount % and Manual Price Override, are mutually exclusive. The end user can only use one of them.)
 - **Manual Discount %.** The end user can enter a manual discount percentage for a line item.
 - **Manual Price Override.** The end user can specify an override price for the
 - **Line item.** This price is used as the net price for the line item. Specifying a value in this field overrides any applicable policy discounts.
 - **Override Policy Discounts.** Selecting this check box overrides any policy discounts such as volume discounts and contractual discounts, generated by the application. The system does not apply policy discounts to that line item. Discounts depend only on manual discounts. Use this flag if you want the Manual Discount Amount or Manual Discount % to replace the policy discounts rather than being applied in addition to the policy discounts. This flag is deselected by default. Whenever the user selects or deselects this flag, the item is repriced. In earlier releases, this field was named Keep Discount.
- Data used to calculate the net price:
 - **Start Price.** The start price of the product, including any customizable product adjustments or attribute adjustments.
 - **Policy Discounts.** The sum of discounts applied by the application (such as volume discounts, contractual discounts, etc.)
 - **Manual Discounts.** The sum of manual discounts applied by the user.
 - **Net Price.** The Net Price of the item. Calculated as $\text{Start Price} - \text{Policy Discounts} - \text{Manual Discounts}$.
 - **Qty.** The quantity of the item.
 - **Extended Net Price.** Calculated as $\text{Extended Qty} * \text{Net Price}$

- **Sub Total.** The One-Time total. If the line item is a customizable product, this will be the Sub Total of the Net Price for the customizable product and any components with a Price Type of One - Time.
- **Monthly Sub Total.** The Monthly Sub total for the line item. If the line item is a customizable product, this will be the Sub Total of the Net Price for the customizable product and any components with a Price Type of Per Month.

These fields of the Discount Negotiation form provide a top-down view of how the net price was calculated.

Using this view, the salesperson can see what the profit margin for the product is with the policy discounts that the pricing administrator has set and with different manual discounts that the salesperson is considering offering to the customer. The salesperson can set the manual discounts in this view, and see the margin for each.

To use the Discount Negotiations view

- 1 Navigate to the quote and line item that you are negotiating the discount for.
- 2 Click the Pricing view tab.

The Discount Negotiation form is under the Line Items list.

Example of Calculation of Discount Amounts

This section gives an example of how the application calculated the discount price for three products, based on:

- **Start Price.** \$100 list price for each product, defined by the pricing administrator.
- **Policy discounts.** Contractual and market discounts that the pricing administrator defined. Contractual discounts are applied first.
- **Manual Discounts.** Specified by the end user.

The data for the three products in the example is shown in [Table 23](#).

Table 23. Pricing Data for Example Products

	Product 1	Product 2	Product 3
Contractual Discount	10%	None	10%
Market Discount	\$10 off	\$5 off	None
Manual Discount Amount	\$10	None	None
Manual Discount %	None	10%	None
Manual Price Override	None	None	\$5

The prices calculated for the three products based on this example data is shown in [Table 24](#). This table assumes that the pricing procedure has been set up to apply the contractual discount first and then the market discount. It also assumes that the user did not select the Override Policy Discount Field.

Table 24. Pricing Calculation for Example Products

Product	Start Price	Policy Discounts	Manual Discounts	Net Price	Price Calculation
Product 1	\$100	\$20 (\$10 Contractual + \$10 Market)	\$10 entered in Manual Discount Amount field	\$70	\$100 (Start Price) – 10% (Contractual) - \$10 (Market) - \$10 (Manual Discount Amount)
Product 2	\$100	\$5 (Market)	10% entered in Manual Discount % field	\$85.50	\$100 (Start Price) - \$5 (Market) – 10% (Manual Discount %)
Product 3	\$100	\$10 (10% Contractual)	\$5 entered in Manual Price Override field	\$95	\$95 (Manual Price Override, overrides start price and policy discounts.)

If the end user selected the Override Policy Discount field, the products would have the prices shown in [Table 25](#). In every case, the price calculation would just be based on the start price and manual discount and would ignore any system generated discounts such as Volume Discounts, Contractual Discounts, and so on.

Table 25. Pricing Calculation for Example Products using Override Policy Discount

Product	Start Price	Manual Discounts	Policy Discounts	Net Price	Price Calculation
Product 1	\$100	\$10 entered in Manual Discount Amount field	0	\$90	\$100 (Start Price) – \$10 (Manual Discount Amount)
Product 2	\$100	10% entered in Manual Discount % field	0	\$90	\$100 (Start Price) – 10% (Manual Discount %)
Product 3	\$100	\$5 entered in Manual Price Override field	0	\$95	\$95 (Manual Price Override, overrides start price)

Adding Shipping Information

End users specify the following shipping information for a quote or order:

- Ship-to information, including account name, contact name, and address.
- Shipping method, terms, and carrier, which are factor in shipment cost.
- Whether all the items should be shipped at the same time (Shipping Complete).
- Whether all the items should be delivered at one time (Single Delivery).

When working with a quote, the user specifies one shipping address for the entire quote. When working with an order, the user can specify different shipping addresses for individual line items.

When working with an order, after entering the necessary information, the user clicks Create Shipment to generate shipment records. The application creates one shipment record for line items that have the same values in the following fields: Request Delivery Date, Ship-To Address, Source (Warehouse), Priority, Shipment Method, Carrier.

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders”](#) on page 129.

NOTE: If you want different line items on an order to be shipped to different locations, see [“To specify different ship-to addresses for different line items in an order”](#) on page 151.

To add shipping information to an order

- 1 Navigate to the quote or order with which you want to work.
- 2 Click the Shipping view tab.

The account, site, contact, and address are automatically populated based on the account information.

- 3 Change the default shipping information, if necessary, and fill in the Shipping form. Some fields are described in the following table.

Field	Comments
Shipping Method	Required. Select the method by which products should be shipped.
Shipment Terms	Required. Select the terms for shipment.
Carrier	Required. Select the carrier to be used for shipping.
Ship Complete	Select this check box to indicate that all items in the order should be shipped together.

Use the following procedure to specify different ship-to addresses for different line items in an order.

To specify different ship-to addresses for different line items in an order

- 1 Navigate to the quote or order with which you want to work.
- 2 Click the Shipping view tab.
- 3 Under the Shipping view tab, click the Line Items view tab.

The Shipping applet is now a list of all the line items, instead of a form with just one shipping address for the order.

- 4 In the Shipping list, for any line item which you want to have a different shipping address, enter a name, address, shipping method and carrier.

Calculating Shipping Charges

Shipping charges depend on the shipping method and carrier used.

The end user should enter shipping information before calculating shipping charges. For more information, see [“Adding Shipping Information” on page 150](#).

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

To calculate shipping charges

- 1 Navigate to the quote or order with which you want to work.
- 2 Click the Payments view tab.
- 3 In the Totals form, which is under the Payments form, click Calculate Shipping.

The shipping charge is calculated and appears in the Totals form.

Calculating Taxes

If your Siebel Business Application has been integrated with third-party tax software from Taxware, an end user can click the Calculate Taxes button to determine taxes and insert them in a quote or order. If your application is not integrated with third-party tax software, an end user can enter a tax rate manually.

For products with components, taxes may be calculated either on the individual components, or on the extended price for the product with components. The method used is determined through the Product Administration screen.

NOTE: If you change items or prices in the quote or order, be sure to recalculate the taxes when you are finished.

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

To calculate taxes by entering a tax rate manually

- 1 Navigate to the quote or order with which you want to work.
- 2 Click the Payments view tab.
- 3 In the Tax Rate field, if a rate is not yet assigned, enter the appropriate tax rate.
- 4 If a customer is tax-exempt, select the Tax Exempt Flag field and enter a reason and tax exempt certification ID.

Use the following procedure to calculate taxes using third-party tax software.

To calculate taxes using third-party tax software

- 1 Navigate to the quote or order with which you want to work.
- 2 Make sure the ship-to address is accurate.

The ship-to address is used by third-party tax software when determining the tax rate. When line items in an order have different ship-to addresses, different tax rates may apply to the line items. For information about entering ship-to information, see [“Adding Shipping Information” on page 150](#).

- 3 Click the Payments view tab.
- 4 In the Totals form, which is under the Payments form, click Calculate Taxes.

The tax on the items appears in the Tax field on the Totals form.

Checking Availability to Promise (ATP)

Your Siebel Business Application can check with your back-office software to determine the availability of products in a quote or order, so that an end user can confirm availability for a customer. Using this feature, an end user can request delivery by a particular date, inquire about availability, and then reserve the items. An end user can also request that items be shipped from a particular source, such as a warehouse or other inventory location. If a customer decides they do not need all of the items, the end user can also unreserve items from the quote or order.

An end user can specify a requested date and source for the entire quote or order, or for individual line items. The end user can also request that certain items be shipped together, or that all items be shipped together.

Your Siebel Business Application must be set up to make special calls to your back-office system in order to use this functionality. For details, see [Chapter 5, “Integrating Order Management with Third-Party Product Availability Applications.”](#)

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

To check availability and reserve items in a quote or order

- 1 Navigate to the quote or order for which you want to check availability.
- 2 Click the Shipping view tab.

- In the Shipping form, enter any requested information that applies for the entire quote or order. The following table shows some of the fields you might want to set.

Field	Comments
Requested Date	Enter the date you want the items to be delivered. When entered in the fulfillment form, this date is for the entire quote or order; it will be copied onto each line item. Leave this field blank to request the earliest possible date.
Ship Complete	Check this field to indicate that the order needs to be shipped complete or not at all. All line items are assigned the number one in the Package field.
Source	Use this field to request that the items in the quote or order be shipped from a particular source. Leave this field blank to indicate that any source is okay. This source will be copied to each line item.
Single Delivery	Select this checkbox to indicate that all line items in the order should be shipped from a single source and have a single delivery date.

- Click the Fulfillment view tab under the Shipping view, and make any changes to the requested information for individual line items. The following table shows some fields you might want to change.

Field	Comments
Qty	Defaults to the quantity of the line item being ordered.
Requested Date	Leave this field blank to request the earliest possible date.
Source	Use this field to request that information be shipped from a particular source. Leave this field blank to indicate that any source is okay.

- To check availability for an individual item, select the line item in the Requested Schedule Lines list below the Fulfillment form, and then click Inquire.

Your Siebel Business Application checks with your back-office system to determine availability for the line item, and the fulfillment engine returns information to the Promised Schedule Lines list.

- To reserve individual items, in the Line Items list below the Fulfillment form, select the items and click Reserve.

Your Siebel Business Application sends a reservation request to your back-office system and the fulfillment engine returns an indication that the items are promised to the Promised Schedule Lines list.

- To unreserve line items that you have previously reserved, in the Line Items list, select the items and click Unreserve.

NOTE: You can also reserve items without having previously inquired about them. When a line item is reserved, the requested quantity, date, and source are read-only. If you need to make a change to any of those settings, you must unreserve the items first.

Splitting Line Items To Accommodate Different Requested Dates

A customer ordering a large quantity of the same item might want to request delivery of part of the order at two or more different times. In this case, the end user can split the line item, assigning quantities and requested dates to each new line. To split a line item, the end user enters two or more records in the Requested Schedule Lines and specifies the quantity and dates for each.

To split a line item across requested dates

- 1 In the Fulfillment list, select the line item that you want to split.
- 2 In the Requested Schedule Lines list, click New and enter the requested date and quantity for the first batch.
- 3 Add another record in the Requested Schedule Lines list for the second batch.
- 4 Continue to add records until you have the appropriate number of delivery requests. Make sure that the total quantity matches the quantity in the Line Items list.

Entering Payment Information for Quotes or Orders

End users enter billing and payment information in the Payments view tab of a quote or order.

Siebel Order Management provides these payment methods: credit card, purchase order, check, money wire, cash, and stored value. Your company may add other payment methods through list-of-values administration.

If you entered a payment profile for this customer, then when you make a selection in the Payment Method field, the Payment Detail form is automatically populated with the information that you entered in the profile for that payment method. The end user can edit this default information. For more information, see [“Creating Payment Profiles” on page 30](#).

This task is part of the [“Common Tasks for Creating Quotes and Sales Orders” on page 129](#).

To enter payment information

- 1 Navigate to the quote or order for which you want to enter payment information.
- 2 Click the Payments view tab.
- 3 If payment terms are appropriate for this quote or order, in the Payment Terms field, select the payment terms.

Your company's policies determine when payment terms should be used.

- 4 In the Payment Lines list, below the Payment form, add a payment line item.

For the first payment line, the total amount of the order is copied into the Transaction Amount field.

NOTE: If this is an order that was created from a quote which included payment information, that information appears as a payment line item.

- 5 If the customer will use more than one payment method, change the amount in the Transaction Amount field to the amount for this first payment method.
- 6 In the Payment Method field, select the method for the transaction amount.
The default payment method is Credit Card.
- 7 In the Payment Detail form below the Payment Lines list, complete additional fields for the selected payment method.
- 8 The form changes depending on the payment method selected. For details about important fields for each payment type, see [“Payment Fields for Payment Methods” on page 155](#).
- 9 For credit card and purchase order payments, check the customer’s credit.
 - For a purchase order payment, click Credit Check.
 - For a credit card payment, click Authorize.

NOTE: For sales orders, you will typically use Authorize before placing the order. Then later, after the order has been filled, you may return and click Settle. When creating field service orders or cash and carry orders, you may want to use Authorize and Settle instead of Authorize at the time of order.
- 10 Review the Payment Status field and select a status, if appropriate.
You may return to change this field later, for example, after receipt of a check. For details about changing the payment status, see [“Changing the Status of a Payment” on page 160](#).
- 11 For each additional payment method, repeat [Step 4](#) through [Step 10](#). When you add another payment method, the transaction amount will default to the remaining amount not yet associated with a payment method.

Payment Fields for Payment Methods

Each payment method requires different information. When an end user adds a payment method to an order, the Payment Details form below the Payment Lines list shows the appropriate fields for that payment method.

The available buttons on the form also change, to reflect the appropriate actions for that payment type. For example, a cash payment does not need to be authorized or settled, while a credit card payment does.

The tables below list important fields for each of the payment methods.

- Checks - [Table 26 on page 156](#)
- Credit Cards - [Table 27 on page 156](#)
- Purchase Orders - [Table 28 on page 158](#)
- Wire Transfers - [Table 29 on page 159](#)
- Stored Values - [Table 30 on page 159](#)

Table 26. Payment Detail Fields for Checks

Important Fields	Description
Transaction Amount	Amount for the individual payment transaction.
Payment Method	Check
Payment Type	Type of check being used: Personal, Corporate, or Cashiers.
Check Number	The identifying check number.
Date of Birth	The customer's date of birth.
Checking Account Number	The bank account number for the check.
ABA Code	The American Banking Association code for the bank on the check.
Social Security #	The customer's social security number.
Drivers License State	The state in which the customer has a drivers license.
Drivers License #	The customer's drivers license number.
Bill To Account Name and Address	Name and address of the account being billed for this payment line item. Defaults from the Payment form.
Authorization Code	Code indicating that authorization of the check has been given.
Authorization Date	Date authorization was given for the check. Can be entered manually or configured to be entered automatically.
Check Mailing Address	Your company's mailing address, to tell the customer where to mail the check.
Payment Status	Defaults to Pending Receipt of Check Receipt. Change this after the check has been received and deposited, and funds received.

Table 27. Payment Detail Fields for Credit Cards

Important Fields	Description
Transaction Amount	Amount for the individual payment transaction.
Payment Method	Credit Card
Payment Type	The type of credit card. Out-of-the-box, available types are Visa, MasterCard, Discover, and American Express.
Credit Card #	The credit card number.
Expiration Month	The month the credit card expires.
Expiration Year	The year the credit card expires.
Issuing Bank	The name of the bank that issued the card.

Table 27. Payment Detail Fields for Credit Cards

Important Fields	Description
Issuing Bank Phone Number	The phone number for the bank that issued the card.
Credit Card Holder	Name of the person on the credit card.
Billing Address, City, State, Zip	Address fields for the person responsible for this payment line item. Defaults to the account's bill-to address.
Payment Status	<p>After you click Authorize or Authorize and Settle, the credit card authorization process returns one of these values as the status:</p> <p>Authorized. Indicates the credit card payment for the transaction amount entered has been approved.</p> <p>AVS Failed. Indicates that the address entered for the customer did not match the address in the Address Verification System (AVS).</p> <p>Card Verification Declined. Indicates this payment was declined because the card could not be verified.</p> <p>Charged. Indicates the charge was authorized and has been charged.</p> <p>Declined. Indicates authorization was declined.</p> <p>Need Verbal Authorization. Indicates that the bank must call the owner of the card for authorization.</p> <p>Referral. Neither approved nor declined. The bank needs to research something related to authorizing this payment.</p>
Authorization Code	Code returned when the transaction was authorized.
Authorization Date	Date the transaction was authorized.
AVS Code	Code provided by the Address Verification System (AVS) to indicate the address for the credit card was verified.
Customer Code	For a corporate customer, a code verifying that the credit card may be used.
Card Verification #	<p>This is a four digit unique identifier that is often printed on the back of a credit card. It is used to reduce fraud because only the person holding the card should know it.</p> <p>This field should be deleted after the number is submitted for authorization.</p>
Merchant ID	Your company's identifying number. If more than one Merchant ID is available, the correct ID for this payment can be selected from drop-down list.

Table 28. Payment Detail Fields for Purchase Orders

Important Fields	Description
Transaction Amount	Amount for the individual payment transaction.
Payment Method	Purchase Order
Purchase Order #	Number of the purchase order. May display Pending if the order was created from a quote which had Pending as the PO#.
Payment Type	For a purchase order, the payment type is Payment.
Payment Status	Status of the payment. Defaults to Pending Check Receipt. Change this after the funds have been received.
Credit Status	Status information returned from the back office after a credit check is done by clicking Check Credit.
Credit Status As Of	Date the credit check status information was returned.
Credit Check Message	Message text returned with the credit status.
Bill To Account	Name of the account responsible for this payment line item.
Bill To Address	Address of the account to be used in relation to this payment line item.
Approval Date	Date that the purchase order payment was approved.
Approved By	The name of the person who authorized the purchase order.
Authorization Code	Code returned when the payment was authorized.
Authorization Date	Date the payment was authorized. Can be the date the funds appear in the account.
Payment Comments	Any comments appropriate for this payment.

Table 29. Payment Detail Fields for Wire Transfers

Important Fields	Description
Transaction Amount	Amount for the individual payment transaction.
Payment Method	Wire Transfer
Originating Bank	The bank sending the transfer.
Branch Bank Address, City, State, Zip	The address of the bank sending the transfer of funds.
Bank Routing #	Routing number for the bank.
Payment Account #	Wire transfer account number.
Date of birth	The customer's date of birth.
Bill To Account Name	Name of the account responsible for this payment line item.
Contact Name	Person to contact in relation to this payment line item.
Contact Phone	Phone number for the contact.
ABA Code	The American Banking Association code for the bank on the check.
Social Security #	The customer's social security number.
Authorization Code	Code returned when the payment was authorized.
Authorization Date	Date the payment was authorized. May be the date you see the funds in the account.
Payment Status	Status of the payment. Defaults to Pending Check Receipt.
Drivers License #	The customer's drivers license number.
Drivers License State	The state in which the customer is licensed to drive.

Table 30. Payment Detail Fields for Stored Value

Important Fields	Description
Transaction Amount	Amount for the individual payment transaction.
Payment Method	Stored Value
Payment Type	Type of stored value. Preconfigured values are Gift Certificate and In-Store Credit
Payment Status	Status of the payment. Defaults to Pending Check Receipt.
Contact Name	Contact name associated with the stored value.
Payment Account #	Number of the account that will provide the payment of the stored value.

Table 30. Payment Detail Fields for Stored Value

Important Fields	Description
Account Name	Name of the account with which the payment is associated. Defaults to the bill-to account.
Authorization Code	Code returned when the payment was authorized.
Authorization Date	Date the payment was authorized. May be the date you see the funds in the account.

Approving a Payment

Depending on how your company has set up payments, certain payment methods might require approvals before they can be accepted.

The initial payment status is set to pending. A user with approval capabilities will then need to change the status to approved.

NOTE: Approving a payment is not the same as authorizing a payment. Authorization performs a credit check through a back-office system.

To approve a payment

- 1 Navigate to the quote or order for which payment needs to be approved.
- 2 Click the Payment view tab.
- 3 In the Payment Lines list, select the purchase order payment to approve.
- 4 In the Payment Detail form, below the Payment Lines list, enter your name in the Approved By field and enter today's date in the Approval Date field.

Changing the Status of a Payment

The status assigned to a payment may be set automatically in some cases (such as when a credit card is authorized), but needs to be set manually in others. For example, when the payment method is a check, the initial status is set to Pending Check Receipt. After a company receives funds for the check, an end user can manually change the status of the payment transaction to Authorized, for example.

Your company may also create business processes that automatically update the status under certain circumstances.

Table 31 on page 161 lists the possible payment statuses and explains when they are likely to be used.

To change the status of a payment

- 1 Navigate to the quote or order for which the payment status needs to be changed.
- 2 Click the Payment view tab.
- 3 In the Payment Lines list, select the appropriate status in the Payment Status field.

Table 31. Payment Statuses

Status	Comment
New	Payment information was sent, but confirmation of receipt from the back-office system was not received. The message may not have been received.
Authorized	The payment has been authorized.
Declined	The payment has been declined.
Charged	The payment has been charged to a credit card.
Refunded	The payment has been refunded to the customer.
Reversed	The payment shown was previously charged to a credit card, and that charge has been reversed; a credit for the same amount was sent to the credit card.
Referral	Payment has been held by the bank until they can gather additional information.
Pending Check Receipt	A check, purchase order, or wire transfer has been received. Receipt of the payment has not yet occurred.
AVS Failed	Indicates that the address entered for the customer did not match the address in the Address Verification System (AVS). Typically used with credit card payments
Card Verification Declined	A third-party authorization system was not able to verify the credit card.
Need Verbal Authorization	This payment needs to be verbally authorized by the credit card company.

Checking Credit for a Purchase Order

An end user can check a customer’s credit when the payment method is a purchase order.

The end user can also check credit when payment is made using a credit card. For information, see [“Authorizing and Settling Credit Card Payments” on page 162](#).

To check credit for a purchase order

- 1 Navigate to the quote or order which you are working.
- 2 Click the Payment view tab.
- 3 If necessary, enter the purchase order information.

- 4 In the Payment form, click Credit Check.

Your Siebel Business Application sends an authorization request to your back office or financial system to confirm whether the purchase order is valid and the payment can be authorized.

The back-office system returns information to three fields: Credit Status, Credit Status As Of, and Credit Check Message.

Authorizing and Settling Credit Card Payments

In an order, an end user can check authorization of payment by credit card and can then settle the payment, to collect the amount authorized.

For credit card authorization to be available, your Siebel Business Application must have implemented integration with another payment processor. For more information, see *Siebel eSales Administration Guide*.

To authorize and settle a credit card payment

- 1 Navigate to the quote or order with which you are working.
- 2 Click the Payments view tab.
- 3 If necessary, add a Payment Line and enter the credit card payment information, or select the payment line containing the credit card payment.
- 4 Perform one of the following:
 - To authorize the credit card payment, in the Payment Detail - Credit Card form, click Authorize.
 - To settle a payment that has previously been authorized, click Settle.
 - To authorize and settle a credit card payment at the same time, click Authorize and Settle.

Your Siebel Business Application sends an authorization request to a third-party payment processing system to confirm whether the payment can be authorized, and settled, if appropriate.

NOTE: When the end user clicks Authorize or Authorize and Settle, credit check calls a payment processing system to approve the transaction. Sometimes an error will be returned, or the payment will be rejected. When this occurs, the end user can use the status and any error message returned to determine the appropriate course of action.

Authorizing a Credit Card Payment Manually

When the credit check of a credit card payment returns the Payment status Declined or Referred, the end user will need to assess the reason the payment has not been approved. If the end user determines that the payment is good, he or she can manually authorize the payment. In such a case, the end user should obtain an authorization code verbally from the credit card company.

To manually authorize a credit card payment

- 1 Navigate to the order with which you want to work.
- 2 Click the Payments view tab and select the credit card payment line with the Payment Status of Declined or Referred.
- 3 In the Authorization Code field, enter the authorization code.
- 4 When you are prompted to confirm the change to the order, click Yes.

Your Siebel Business Application accepts the new entry and the credit status on the line item is changed to Authorized. A note appears in the Payment History with the change request date and requestor. This manually entered code will be used to validate the order approval with the bank during settlement processes.

Checking Payment History

It is important to be able to explain to customers all of the transactions that relate to their payment method. An end user can see all transactions against a specific payment line by checking the payment history. For example, if a credit card is authorized manually, that action will be noted in the history, along with the date and requestor.

The specific changes that are recorded in the payment history are determined by settings your company makes in the Application Administration screen, Audit Trail view. For complete information about setting up Audit Trail, see *Siebel Applications Administration Guide*.

To check payment history

- 1 Navigate to the order for which you want to check payment history.
- 2 Click the Payments view tab.
- 3 In the Payment Lines list, below the Payments form, select the payment for which you want to see history information.
- 4 From the menu of the Payment Lines list, select Payment History.

The Payment History dialog box appears, listing information about changes to the payment item.

Entering Refunds

An end user can enter a refund of a credit card payment for a customer, when appropriate. Refunds are given after a settlement of a payment has occurred and funds have been transferred.

To enter a refund

- 1 Navigate to the order for which you want to enter a refund.
- 2 Click the Payments view tab.
- 3 In the Payment Lines list, below the Payments form, select the credit card payment for which you want to enter a refund, and click Refund.

Changing the Default Price List and Rate List

An end user can change the default price list that is used for both quotes and orders.

To set the default price list

- 1 Navigate to the User Preferences screen, then the Price List Sales Methodology.
- 2 In the Price List field, select the price list to be used as a default.
- 3 In the Rate List field, select the rate list to be used as a default.
- 4 If needed, select a sales methodology from the Sales Methodology drop-down list.

How End Users Work with Product Promotions

Product promotions can be displayed in employee applications in product catalogs and in the drop-down list in the Promotions field in the line items of quotes and orders. For information about how to display promotions in these places, see the section about promotions in *Siebel Pricing Administration Guide*.

Displaying the promotion in these places gives the end user many options for working with product promotions.

In every case, the price discount that the customer gets because of the promotion is clearly visible on the quote or order.

The following sections describe how end users work with product promotions:

- [“About Selecting Product Promotions from a Catalog” on page 164](#)
- [“About Using Coupon Product Promotions” on page 165](#)
- [“About Using Bundle Product Promotions” on page 165](#)
- [“About Product Promotion Recommendations” on page 166](#)
- [“Editing Bundle Product Promotions” on page 166](#)

About Selecting Product Promotions from a Catalog

If promotions are displayed in product catalogs, they will be visible in the Promotions applet of catalogs that contain the products they apply to. The expiration date for each promotion is also displayed to encourage customers to buy the product before the promotion expires.

Sales representatives using the catalog can click Add Promotion to add the promotion to a quote or order and apply the promotional discount. The products associated with the promotion are automatically added to the quote or order.

Sales representatives using the catalog can click Edit Promotion if they want to modify the selections within a promotion. For example, if the promotion requires the customer to purchase one product from the Television product line, the sales representative clicks Edit Promotion to navigate to a view where the television can be selected.

About Using Coupon Product Promotions

If you display coupon promotions on the line items of quotes and orders, they will be available in the drop-down list in the Promotion field of any line item where you add a product that qualifies for the coupon. The drop-down list displays the names of all the promotions that could apply to this product, and the sales representative applies the promotion by choosing from this drop-down list.

Two possible uses of this feature are:

- **Customer has coupon.** A customer buys a product, and the sales representative adds it to an order as a line item. The customer presents the sales representative with a promotional coupon for that product, and the sales representative chooses that coupon in the Promotion field of the line item to apply the promotional discount to the product.
- **Sales representative suggests coupon.** A customer adds several products as line items to a quote, but is uncertain about whether to buy the products because of the high total price of the quote. The sales representative uses the Promotion fields of the line items to see which coupon promotions could apply to these products, and offers the customer a promotion to convince the customer to make the purchase.

About Using Bundle Product Promotions

Sales representatives can use bundle promotions displayed in catalogs for the top-down selection of promotions, and they can use promotions displayed in the line items of quotes and orders for the bottom-up selection of bundle promotions.

Two possible uses of this feature are:

- **Top-down selection of bundle promotion.** A customer wants to buy a specific bundle promotion that has been advertised. The sales representative chooses the promotion from the catalog, and all the product items are added to the order with the promotional discount.
- **Bottom-up selection of bundle promotion.** A customer is placing an order, and the sales representative adds several products as line items to a quote. The recommendation engine displays a message saying that there is a promotion available that includes these products. The customer decides whether to accept this promotion.

About Product Promotion Recommendations

To display product promotion recommendations, the sales representative selects Verify Promotion from the applet-level menu of a Quote or Order header.

A pop-up list displays all the recommended promotions and allows the user to accept or reject each promotion recommendation. The order in which promotions are listed is based on the ranking entered in the Score field of the Promotion record and the percentage of current Quote or Order line items matching the promotion definition.

Promotions are recommended only if the administrator selects the Recommendable flag on the Product Promotions screen, Products view while creating the promotion.

Editing Bundle Product Promotions

After an end user has added a bundle product promotion to a quote or order, the user can edit the product promotion to change the products it includes or the quantities of these products. Then the user can validate the edited promotion to make sure that the new products and quantities still qualify for the promotion.

To edit a bundle product promotion

- 1 Add the Bundle as a line item of a Sales Order.
- 2 One record is added representing the bundle promotion and others records are added, indented under the promotion record, representing the products in the promotion.
- 3 In the Line Items list, select the promotion record
- 4 From Menu, select Edit Promotion.
- 5 In the Edit Promotion form:
 - a Edit the Quantity field for products to change the products' quantity.
 - b Click the Delete icon next to a product to delete that product.
 - c Click the Configure icon next to a product to configure that product.
- 6 In the Edit Promotion form, after you are finished making edits, Click Validate.
An error message appears if the quantities or products as edited qualify for the promotion. If so, correct the quantities or products.
- 7 In the Edit Promotion form, click Save
- 8 The edited information for the bundle product promotion is added to the Line Items list. In the indented line items under the promotion line item record, quantities are changes, new products are added, and former products are deleted, as you specified in the Edit Promotion form.

Process of Enabling the Automatic Configuration of Customizable Products

When you enable the automatic configuration of customizable products that are based on a promotion definition, you enable the automatic configuration of the following relationships:

- Promotion bundle and product class relationship
- Promotion bundle and product relationship

You also populate the default settings of the promotion on the line item. You can add a promotion line item to a quote or order in any of the following ways:

- By changing the promotion associated with an existing line item either by selecting the promotion from the promotion picker on an existing line item, or by adding a new promotion line item so that it is associated with an existing line item.
- By accepting a bottom-up recommendation for a product (this option is available when the user clicks Verify or adds products from the Catalog view).
- By upgrading an existing promotion.

NOTE: In previous versions of Siebel Order Management, when you added a promotion line item to a quote, the *existing* line items that got associated with the new promotion line item were not automatically configured with the default settings of the new promotion. The default settings of the promotion were populated only when they enter the Siebel Configurator session. In addition, the default settings of the promotion were not populated on the existing relationships of the customizable product when they enter the Siebel Configurator session.

To enable the automatic configuration of customizable products that are based on a promotion definition, perform the following tasks:

- 1 [“Setting Up Siebel Tools for the Automatic Configuration of Customizable Products” on page 168](#)
- 2 [“Setting Up Siebel Business Applications for the Automatic Configuration of Customizable Products” on page 170](#)

For more information about the automatic configuration of customizable products, see the following:

- [“Activating Workflows for the Automatic Configuration of Customizable Products” on page 173](#)
- [“Headless Configuration Service” on page 174](#)
- [“ISS Promotion Management Service” on page 178](#)
- [“Adding a Promotion Line Item” on page 179](#)

Setting Up Siebel Tools for the Automatic Configuration of Customizable Products

Use the following procedure to set up Siebel Tools to support the automatic configuration of customizable products that are based on a promotion definition. This procedure is a step in [“Process of Enabling the Automatic Configuration of Customizable Products” on page 167](#).

To set up Siebel Tools to support the automatic configuration of customizable products

- 1 Start Siebel Tools, and connect to the server data source.
- 2 Navigate to Projects in the Object Explorer, and do the following:
 - a Lock the following repository projects:
 - ❑ ISS Promotion Admin
 - ❑ ISS Promotion Integration
 - ❑ ISS Promotion Workflow
 - ❑ SIS OM Base Architecture
 - ❑ Symbolic Strings
 - ❑ UMSUI
 - b Create a new repository project where *Name* is Headless Configuration.
- 3 Create the required symbolic strings:
 - a Navigate to Symbolic Strings in the Object Explorer.
 - b To expose this object type (if it is not already exposed): Click View, select Options, go to the Object Explorer tab, and then select the check box next to Symbolic Strings.
 - c Create three new records, with the following values:
 - ❑ *Name* is SBL_PROM_AUTOMATCH
Current String Value is Promotion Automatch
Translate Flag is TRUE
Type is Conversion
Project is Symbolic String
 - ❑ *Name* is SBL_APPLY_PROM_DE
Current String Value is Apply Promotion Defaults
Translate Flag is TRUE
Type is Conversion
Project is Symbolic String
 - ❑ *Name* is SBL_LOG_HDLS_ERR
Current String Value is Log Error
Translate Flag is TRUE
Type is Conversion
Project is Symbolic String

4 Import the archived files:

NOTE: Archived (.sif) files are located in the ACR471.zip file located in the <Siebel Tools Installation Directory>\REPPATCH folder.

a Import the CSSHeadlessCfgService Class:

- ❑ Click Tools, and select Import From Archive.

Click Yes if prompted with the following message: This operation should only be performed while connected to your local database.

- ❑ Import the Class - CSSHeadlessCfgService.sif file.
- ❑ Select the Merge option in the Conflict Resolution radio group.
- ❑ Follow the remaining steps in the import wizard to complete the import.

b Import the Headless Configuration Service business service:

- ❑ Click Tools, and select Import From Archive.

Click Yes if prompted with the following message: This operation should only be performed while connected to your local database.

- ❑ Import the Business Service - Headless Configuration Service.sif file.
- ❑ Select the Merge option in the Conflict Resolution radio group.
- ❑ Follow the remaining steps in the import wizard to complete the import.

c Import the ISS Promotion Management Service business service:

- ❑ Click Tools, and select Import From Archive.

Click Yes if prompted with the following message: This operation should only be performed while connected to your local database.

- ❑ Import the Business Service - ISS Promotion Management Service.sif file.
- ❑ Select the Merge option in the Conflict Resolution radio group.
- ❑ Follow the remaining steps in the import wizard to complete the import.

d Import the UMF Message List SI applet:

- ❑ Click Tools, and select Import From Archive.

Click Yes if prompted with the following message: This operation should only be performed while connected to your local database.

- ❑ Import the Applet - UMF Message List SI.sif file.
- ❑ Select the Merge option in the Conflict Resolution radio group.
- ❑ Follow the remaining steps in the import wizard to complete the import.

5 Import the workflow processes:

NOTE: Workflow (.xml) files are in the ACR471.zip file located in the <Siebel Tools Installation Directory>\REPPATCH folder.

a Navigate to Workflow Process in the Object Explorer.

b Import the workflow files as follows:

- ❑ Right-click the workspace, and select Import Workflow Process.
- ❑ Choose the workflow_name.xml file that you want to import. Import the workflow files in the order given in the following table.

Order	Workflow File	Project
1	SIS OM Get Future Asset SubProcess.xml	SIS OM Base Architecture
2	SIS OM Sync Delta SubProcess.xml	SIS OM Base Architecture
3	ISS Promotion Upgrade Process.xml	ISS Promotion Workflow
4	Headless Configuration Web Service.xml	Headless Configuration

- ❑ Add the workflow file to its corresponding project, see the preceding table.
The just-imported workflow has a status of In Progress.
- ❑ Click the Publish/Activate button to change the status to Complete.

6 Set up the Business Component:

- a** Navigate to Business Component in the Object Explorer.
- b** Search for the business component: ISS Promotion Item Attribute Value.
- c** Set the value of Sort Specification to *Created*.

7 Compile the following locked projects into an srf file:

- ISS Promotion Integration
- Headless Configuration
- Symbolic Strings
- ISS Promotion Admin
- UMSUI

8 Unlock all projects.

9 Close Siebel Tools.

Setting Up Siebel Business Applications for the Automatic Configuration of Customizable Products

Use the following procedure to set up your Siebel Business Application to support the automatic configuration of customizable products that are based on a promotion definition. This task is a step in [“Process of Enabling the Automatic Configuration of Customizable Products” on page 167](#).

To set up the Siebel Business Application to support the automatic configuration of customizable products

- 1 Start the Siebel Business Application as Siebel Administrator.
- 2 Deploy the workflows:
 - a Navigate to the Administration - Business Processes screen, then the Workflow Deployment view.
 - b In the Repository Workflow Processes applet, query for and activate the following workflows:
 - SIS OM Get Future Asset SubProcess
 - SIS OM Sync Delta SubProcess
 - ISS Promotion Upgrade Process
 - Headless Configuration Web Service

For more information about deploying and activating workflows, see *Siebel Business Process Framework: Workflow Guide*.

- 3 Set up the following signals and actions:

Signal Name	Action			
	Sequence	Type	Service Name	Service Method
HdlsCfgSvcLoad	1	Business Service	ISS Copy Service	LoadEAI
HdlsCfgSvcLoadABO	1	Workflow	SIS OM Get Future Asset SubProcess	RunProcess
HdlsCfgSvcSync	1	Business Service	Remote Complex Object Instance Service	SyncInstance
HdlsCfgSvcSyncABO	1	Workflow	SIS OM Sync Delta SubProcess	RunProcess

For more information about signals, see *Siebel Order Management Infrastructure Guide*. For information about how to call a workflow process from a run-time event, see *Siebel Business Process Framework: Workflow Guide*.

For information about associating events (service methods) with action sets (service names), see *Siebel Personalization Administration Guide*.

- 4 Configure the Promotion Automatch system preference:
 - a Navigate to the Administration - Application screen, then the System Preferences view.
 - b Add a new system preference where the name is Promotion Automatch and System Preference Value is Y.
- 5 Set up the Unified Messaging Framework (UMF) as follows:
 - a Navigate to the Administration - Order Management screen, then the Message Types view.

- b** Click New, and add the following new records to the All Message Types list that is displayed.

Name	Display Mode	Group	Title	Full Text
Headless Configuration Message	Passive	Promotion	Product Structure Changed	Product [Product Name] ([Id]) associated to promotion [Promotion Instance Id] has changed: [Error Text].
Headless Configuration Error Message	Passive	Promotion	Undo Apply Promotion	An error was detected during processing of your last request. Your last request was rolled back.

- c** Select the Headless Configuration Message record, and click the Payload tab.
- d** Click New, and add four new records, where each record has the following Payload Field values:
NOTE: These records form the basis of the message (stored in the Full Text field of the preceding table).

Payload Field Value
Error Text
Id
Product Name
Promotion Instance Id

- e** Select the Headless Configuration Message record, and click the Responses tab.
- f** Click New, and add two new records, each with the following values:

Sequence	Name
1	Accept
2	Reject

Repeat this step for the Headless Configuration Error Message.

- 6** Set up the Web service as follows:
 - a** Navigate to the Administration - Web Services screen, then the Inbound Web Services view.
 - b** Add the following inbound Web service with the following details:

Namespace	Name	Status
http://siebel.com/OrderManagement/HeadlessConfiguration	HeadlessConfigurationWS	Active

- c Set up the following service port for the inbound Web service, HeadlessConfigurationWS.

Service Port Name	Type	Business Service Name	Transport	Address	Binding
HeadlessConfigurationPort	Workflow Process	Headless Configuration Web Service	HTTP	http://<webserver>/eai_<lang>/start.swe?SWEEExtSource=SecureWebService&SWEEExtCmd=Execute&UserName=<UserName>&Password=<Password> For example: http://sdc78187svod/eai_enu/start.swe?SWEEExtSource=SecureWebService&SWEEExtCmd=Execute&UserName=SADMIN&Password=SADMIN	SOAP_DOC_LITERAL

- d Set up the following operation for the inbound Web service, HeadlessConfigurationWS.

Name	Method Display Name	Authentic Type
HeadlessConfiguration	RunProcess	None

- e Click Clear Cache.

Activating Workflows for the Automatic Configuration of Customizable Products

You must activate the following workflows to support the automatic configuration of customizable products that are based on a promotion definition.

- ["ISS Promotion Upgrade Process" on page 269](#)
- ["Headless Configuration Web Service" on page 270](#)
- ["SIS OM Get Future Asset Subprocess Workflow" on page 271](#)
- ["SIS OM Sync Delta Subprocess Workflow" on page 273](#)

For more information about deploying and activating workflows, see *Siebel Business Process Framework: Workflow Guide*.

Headless Configuration Service

The Headless Configuration business service is required to enable the automatic configuration of customizable products that are based on a promotion definition. It works with or without the user interface. It contains the following public methods:

- [“ApplyPromotionDefaults Method” on page 174](#)
- [“Restore Document Method” on page 176](#)
- [“Save Document Method” on page 177](#)

[Table 35](#) describes the Headless Configuration service user properties that you must set.

ApplyPromotionDefaults Method

This method is automatically triggered by the Siebel Business Application when you apply a promotion, provided the Promotion Automatch system preference is set to Y. This method is not triggered if the Promotion Automatch system preference is set to N, or if the Promotion Automatch system preference is not defined.

This method configures customizable product line items in the current product as follows:

- 1 It loads the product line item.
- 2 Runs the batch validation on the product line item.
- 3 Changes the product line item according to the Promotion Automatch argument value.

[Table 32](#) describes Siebel CRM behavior when the Promotion Automatch argument value is set to Default Cardinality, and when the Promotion Automatch argument value is set to Min Max Cardinality.

For more information about cardinality, see [“About Cardinality” on page 174](#).

- 4 It writes the line item back to the document.

This method does not require a user interface context to be called. It contains the method arguments listed in [Table 32](#).

In asset-based ordering (ABO) mode, ApplyPromotionDefaults calls the SIS OM Get Future Asset subprocess workflow, which computes the action codes.

About Cardinality

Cardinality refers to the quantity of the component that a user can select. *Minimum cardinality* governs whether or not selecting items from a relationship is optional or required. *Maximum cardinality* sets the maximum number of items that a user can select from a relationship. *Default cardinality* specifies what quantity of the default product is automatically added to the initial solution that the user sees. For more information about cardinality, see *Siebel Product Administration Guide*.

Table 32. ApplyPromotionDefaults Method Arguments

Argument Name	Data Type	Input or Output	Comments
Promotion Automatch	String	Input	<p>If set to <i>Default Cardinality</i>, then Siebel CRM behavior is as follows:</p> <ul style="list-style-type: none"> ■ Non-existing items change to the default quantity. ■ Existing ports below the minimum quantity change to the default quantity. ■ Existing ports above the maximum quantity change to the default quantity. ■ Existing product ports not violating the cardinality remain the same. ■ Existing class ports below the default quantity change to the default quantity. <p>If set to <i>Min Max Cardinality</i>, then Siebel CRM behavior is as follows:</p> <ul style="list-style-type: none"> ■ Non-existing items change to the default quantity. ■ Existing ports below the minimum quantity change to the min quantity. ■ Existing ports above the maximum quantity change to the max quantity. ■ Existing product ports not violating the cardinality remain the same. <p>NOTE: This can happen if neither Min nor Max cardinality on the promotion is specified.</p> <ul style="list-style-type: none"> ■ Existing class ports below the default quantity change to the default quantity. <p>If set to blank (if no value is set), then Siebel CRM behavior reverts to the existing behavior (that is, the behavior in previous versions of Siebel Order Management). The default setting is blank.</p>
Log Error	String	Input	<p>If set to Y, then logs error messages.</p> <p>The default is Y.</p>
Document Id	String	Input	The Header Id of the quote or order.
Document Type	String	Input	This must be either Quote or Order.

Table 32. ApplyPromotionDefaults Method Arguments

Argument Name	Data Type	Input or Output	Comments
Display Error	String	Input	<p>If set to Y, then displays Unified Messaging Framework (UMF) messages; a user interface context is required.</p> <p>If, depending on application of the promotion, the customizable product structure changes, then the UMF message displays the recommendations applet in the dynamic catalog view; or, the user can open the recommendations applet using the recommendation icon.</p> <p>The default is N.</p>
Integration Object	String	Input	<p>Depending on document type and ABO mode, this argument defaults to either one of the following:</p> <ul style="list-style-type: none"> ■ SIS OM Order, or SIS OM Quote ■ When ABO is turned off: 7.7 Order Entry Integration Object, or 7.7 Quote Integration Object
Search Spec	String	Input	<p>The Search Spec is applied to the business component line item. By default, this argument is empty. However when ApplyPromotionDefaults is invoked automatically on applying a promotion (by setting the Promotion Automatch system preference to Y), this argument is set by the application to retain only those line items that are associated with that promotion instance.</p> <p>See also the following related Search Spec user properties in Table 35 on page 177:</p> <ul style="list-style-type: none"> ■ Order Default Search Spec ■ Quote Default Search Spec
Sync	String	Input	<p>If set to Y, then the result is synchronized to the database.</p> <p>The default is N.</p>

Restore Document Method

This method restores the document to its saved state and contains the method arguments listed in [Table 33](#). If an error is encountered during execution of the ApplyPromotionDefaults method, then Restore Document is automatically triggered by the application (provided the Promotion Automatch system preference is set to Y). Restore Document is not triggered if the Promotion Automatch system preference is set to N, or if the Promotion Automatch system preference is not defined.

Table 33. Restore Document Method Arguments

Argument Name	Data Type	Input or Output	Comments
Document Id	String	Input	The Header Id of the quote or order.
Document Type	String	Input	Document Type must be either Quote or Order.

Save Document Method

This method saves the document in its current state and contains the method arguments listed in [Table 34](#). This method is automatically triggered by the application to save the state of the document before applying the promotion, provided that the Promotion Automatch system preference is set to Y. This method is not triggered if the Promotion Automatch system preference is set to N, or if the Promotion Automatch system preference is not defined.

Table 34. Save Document Method Arguments

Argument Name	Data Type	Input or Output	Comments
Document Id	String	Input	The Header Id of the quote or order.
Document Type	String	Input	Document Type must be either Quote or Order.

Headless Configuration Service User Properties

Use the Headless Configuration service user properties to set the values given in [Table 35](#).

Table 35. Headless Configuration Service User Properties

Business Service User Property	Value
Logging Level	3 NOTE: This is the threshold log level for error messages.
Order Business Object	Order Entry (Sales)
Order Default Search Spec	[IsComplexProductRoot]='Y' AND [Action Code] <> LookupValue('DELTA_ACTION_CODE','Deleted') NOTE: The search specification is appended to the input argument Search Spec.
Order Due Date Field	Requested Ship Date
Order Header Business Component	Order Entry - Orders
Order Line Item Business Component	Order Entry - Line Items

Table 35. Headless Configuration Service User Properties

Business Service User Property	Value
Quote Business Object	Quote
Quote Default Search Spec	[IsComplexProductRoot]='Y' AND [Action Code] <> LookUpValue('DELTA_ACTION_CODE','Deleted') NOTE: The search specification is appended to the input argument Search Spec.
Quote Due Date Field	Due Date
Quote Header Business Component	Quote
Quote Line Item Business Component	Quote Item
UMF Headless Configuration Messages Source	Headless Configuration
UMF Headless Configuration Error Messages Score	100 NOTE: The UMF message is displayed whenever an apply promotion is undone.
UMF Headless Configuration Error Messages Type	Headless Configuration Error Message NOTE: The UMF message is displayed whenever an apply promotion is undone.
UMF Headless Configuration Messages Source	Headless Configuration Proceed Message NOTE: The UMF message is displayed when changes are made to the customizable product based on ApplyPromotionDefaults.
UMF Headless Configuration Messages Score	30 NOTE: The UMF message is displayed when changes are made to the customizable product based on ApplyPromotionDefaults.
UMF Headless Configuration Messages Type	Headless Configuration Message

ISS Promotion Management Service

This business service is required to enable the automatic configuration of customizable products that are based on a promotion definition. The ISS Promotion Management Service is used to handle product promotions at run time, such as Apply Promotion, Recommend Promotion, and so on. This business service also provides the functions to support Unified Messaging and Asset-Based Ordering, such as Load Message and Load Promotion-Related Assets. For more information about the ISS Promotion Management service, see *Siebel Order Management Infrastructure Guide*.

User Properties for ISS Promotion Management Service

Use the user properties of the ISS Promotion Management Service to set the values given in [Table 36](#).

Table 36. User Properties of ISS Promotion Management Service

User Property	Value	Description
Promotion Automatch	Default Cardinality	Specifies Promotion Automatch as the input to the Headless Configuration Service business service
Promotion Automatch Display Error	Y	Specifies Display Error as the input to the Headless Configuration Service business service
Promotion Automatch Log Error	Y	Specifies Log Error as the input to the Headless Configuration Service business service

Adding a Promotion Line Item

The behavior of Siebel Order Management when it adds a promotion line item to a quote or an order when the Siebel CRM system preference Promotion Automatch is set to Y is different from when Promotion Automatch is set to N:

- When Promotion Automatch is set to N (that is, when the automatic configuration of customizable products is not enabled), Siebel CRM behavior is as follows:
 - The existing customizable product line items that are associated with a promotion are not added with the default configuration when you add a promotion line item to a quote or an order.
 - The default settings of the promotion are populated only by manually using Siebel Configurator to add them.
- When Promotion Automatch is set to Y (that is, when the automatic configuration of customizable products is enabled), Siebel CRM behavior is as follows:

NOTE: You must click the **Customize** button to launch Siebel Configurator, where you can manually add the default settings of a promotion.

- The promotion-specific default settings are not processed on the existing product lines.

When you add a promotion line item to a quote or an order, the existing root line items that are associated with the promotion are modified according to the Promotion Automatch user property of the ISS Promotion Management Service. For more information about the ISS Promotion Management Service, see [ISS Promotion Management Service on page 178](#).

NOTE: This behavior applies whether modifying, upgrading, or recommending a promotion. If a conflict occurs when adding a promotion line item to a quote, an order, or a customizable product, then Siebel CRM automatically reverts to the previous product definitions.

Example: Adding a Promotion Line Item

This example shows the expected output when you apply a promotion to a customizable product that is based on the Promotion Automatch argument value, which can be set to either Default Cardinality or Min Max Cardinality. In this example:

- 1 A customizable product called CP1 is defined and a promotion called Promo1 is defined as shown in Figure 6.
- 2 CP1 is then customized as shown in Figure 7.
- 3 The expected output when you apply a promotion (Promo1) to a customizable product (CP1) that is based on the Promotion Automatch argument value is shown in Figure 8.

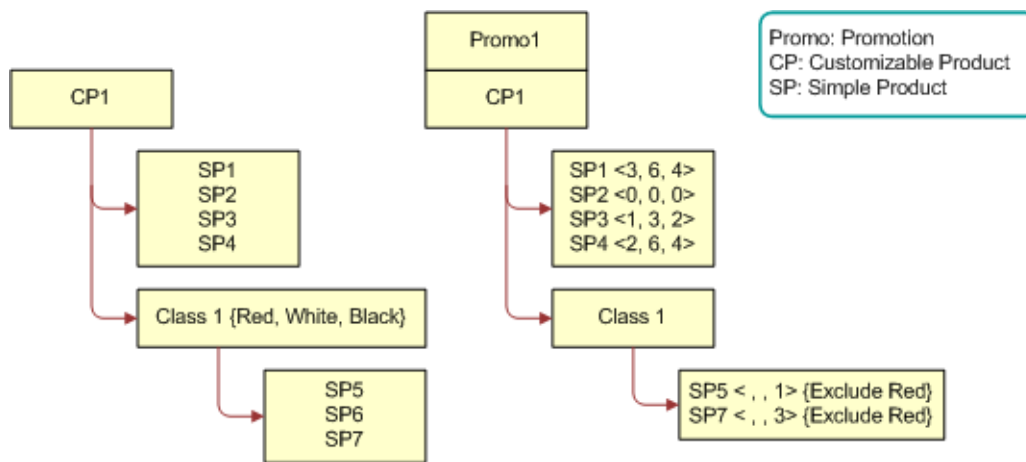


Figure 6. Product Structure for CP1 and Promo 1

Figure 6 shows a product called CP1 with the following structure: CP1 has four simple product relationships defined (SP1, SP2, SP3, SP4) and a Product Class called Class 1. A further three simple product relationships (SP5, SP6, SP7) are defined and associated with Class 1. Class 1 is associated with an attribute that has the values {Red, White, Black}.

NOTE: The relationships SP1 to SP4 have Domain Type set to Product. The Class 1 relationship has Domain Type set to Class.

Figure 6 shows a promotion called Promo1, where CP1 has the following structure: CP1 has four simple product relationships defined (SP1, SP2, SP3, SP4) and a Product Class called Class 1. A further two simple product relationships (SP5, SP7) are defined and associated with Class 1. For SP1, Min is set to 3, Max is set to 6, and Default is set to 4. For SP2, Min is set to 0, Max is set to 0, and Default is set to 0. For SP3, Min is set to 1, Max is set to 3, and Default is set to 2. For SP4, Min is set to 2, Max is set to 6, and Default is set to 4. For SP5, Default is set to 1, and the attribute value Red is excluded for this relationship. For SP7, Default is set to 3, and the attribute value Red is excluded for this relationship.

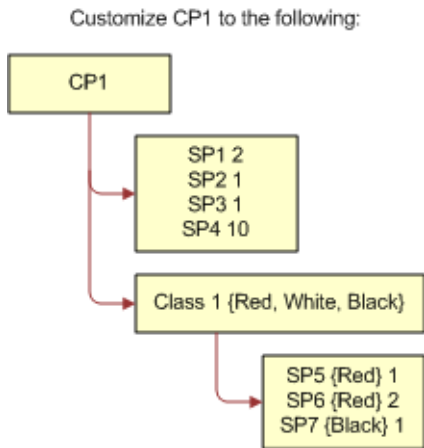


Figure 7. Customized CP1

Figure 7 shows the customized CP1 with the following structure: CP1 has four simple product relationships defined (SP1, SP2, SP3, SP4) and a Product Class called Class 1. A further three simple product relationships (SP5, SP6, SP7) are defined and associated with Class 1. Class 1 is associated with an attribute with the values {Red, White, Black}. SP1 has a default quantity of 2, SP2 has a default quantity of 1, SP3 has a default quantity of 1, and SP4 has a default quantity of 10. SP5 has a default quantity of 1 and the attribute value Red. SP6 has a default quantity of 2 and the attribute value Red. SP7 has a default quantity of 1 and the attribute Black.

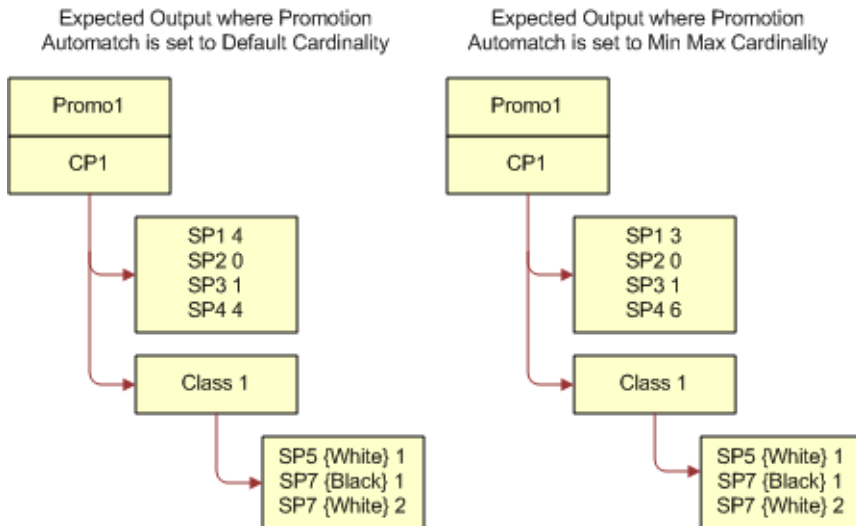


Figure 8. Expected Output for Adding a Promotion Line Item Example

Figure 8 shows the expected output when Promotion Automatch is set to Default Cardinality, which is as follows: SP1 has a default quantity of 4, SP2 has a default quantity of 0, SP3 has a default quantity of 1, and SP4 has a default quantity of 4. SP5 has a default quantity of 1 and the attribute value White. SP7 has a default quantity of 1 and the attribute value Black. SP7 has a default quantity of 2 and the attribute value White.

Figure 8 shows the expected output when Promotion Automatch is set to Min Max Cardinality, which is as follows: SP1 has a default quantity of 3, SP2 has a default quantity of 0, SP3 has a default quantity of 1, and SP4 has a default quantity of 6. SP5 has a default quantity of 1 and the attribute value White. SP7 has a default quantity of 1 and the attribute value Black. SP7 has a default quantity of 1 and the attribute value White.

To add a promotion line item to a customizable product that is based on the Promotion Automatch argument value

- 1 Create the product structure for CP1 and Promo1 as shown in [Figure 6](#).
- 2 Add CP1 to a quote or an order line item, and then customize CP1 as shown in [Figure 7](#).
- 3 Choose Promo1 for CP1 using the promotion picker.

Figure 8 shows the expected output when Promotion Automatch is set to Default Cardinality, and when Promotion Automatch is set to Min Max Cardinality.

For more information about how Siebel CRM behaves depending on the Promotion Automatch argument value, see [Table 32 on page 175](#).

Handling Attribute Defaults

Attribute default values are handled as follows when applying a promotion to a customizable product line item. Attribute default values are handled as follows whether modifying, upgrading, or recommending a promotion:

- If the current attribute value of an existing component is allowed by the promotion definition (because it is either listed in an *Include* rule, or omitted from an *Exclude* rule), then the attribute value is retained.
- If the current attribute value of an existing component is not allowed by the promotion definition, or if the component was added (for example, by applying default values), then:

- If an Include rule is defined, then the current attribute value is updated with the default value.

This default value is controlled by the Sort Specification on the business component ISS Promotion Item Attribute Value. If the Sort Specification is set to Created, then the default value is the first created attribute value for the promotion in the Promotion Item Attribute Value List Applet.

- If an Exclude rule is defined, then the default value cannot be specified within the rule. The current attribute value is initialized according to the existing behavior.

Example: Handling Attribute Defaults

The following example shows the expected output for attribute defaults when you apply a promotion to a customizable product. In this example, a customizable product called CP-A is defined and a promotion called Promo-D is defined. In this example:

- 1 A customizable product called CP-A is defined and a promotion called Promo-D is defined as shown in Figure 9.
- 2 CP-A is then customized as shown in Figure 10.
- 3 The expected output for attribute defaults when you apply a promotion (Promo-D) to a customizable product (CP-A) that is based on the Promotion Automatch argument value is shown in Figure 11.

NOTE: The expected output for attribute defaults when you apply a promotion (Promo-D) to a customizable product (CP-A) is the same whether Promotion Automatch is set to Default Cardinality or Min Max Cardinality.

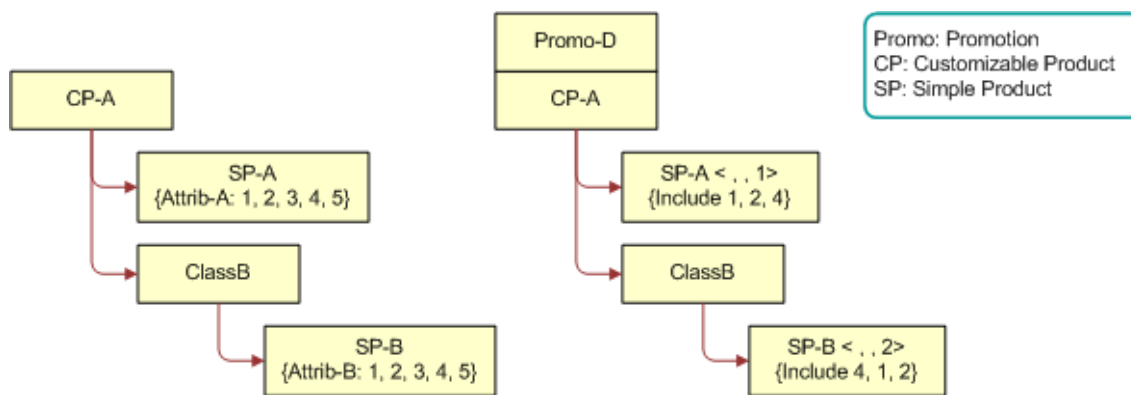


Figure 9. Product Structure for CP-A and Promo-D

Figure 9 shows a product called CP-A with the following structure: CP-A has a simple product relationship called SP-A defined and a Product Class called ClassB. Another simple product relationship called SP-B is defined and associated with ClassB. SP-A is associated with an attribute, Attrib-A, which has the values {1,2,3,4,5}. SP-B is associated with an attribute, Attrib-B, which has the values {1,2,3,4,5}.

NOTE: The relationships SP-A and SP-B have Domain Type set to Product. The ClassB relationship has Domain Type set to Class.

Figure 9 shows a promotion called Promo-D, where CP-A has the following structure: CP-A has a simple product relationship called SP-A defined and a Product Class called ClassB. Another simple product relationship called SP-B is defined and associated with ClassB. For SP-A, Default is set to 1 and the attribute values 2 and 4 (of Attrib-A) are included for this relationship. For SP-B, Default is set to 2 and the attribute values 4, 1, and 2 (of Attrib-B) are included for this relationship.

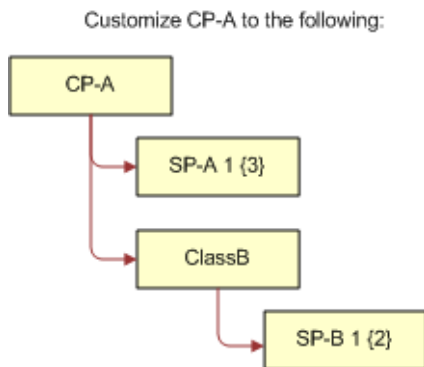


Figure 10. Customized CP-A

Figure 10 shows the customized CP-A with the following structure: CP-A has a simple product relationship called SP-A defined and a Product Class called ClassB. Another simple product relationship called SP-B is defined and associated with ClassB. SP-A has a default quantity of 1 and the attribute value 3. SP-B has a default quantity of 1 and the attribute value 2.

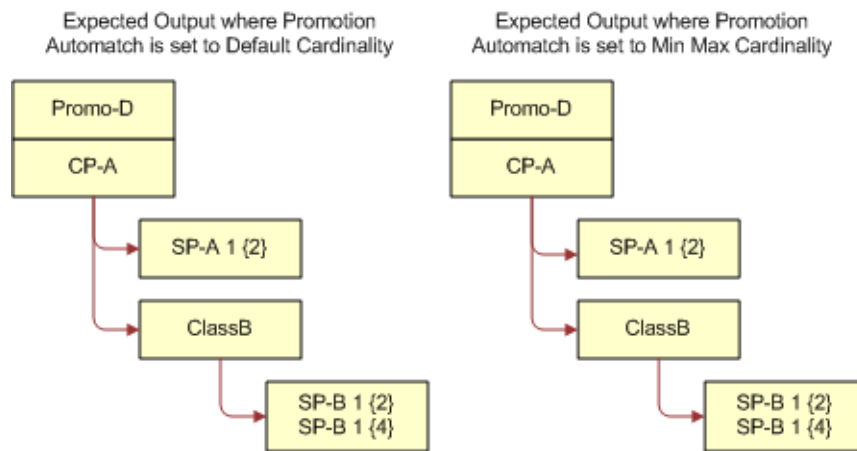


Figure 11. Expected Output for Handling Attribute Defaults Example

Figure 11 shows the expected output when Promotion Automatch is set to Default Cardinality, which is as follows: SP-A has a default quantity of 1 and the attribute value 2. SP-B has a default quantity of 1 and the attribute value 2. SP-B has a default quantity of 1 and the attribute value 4.

Figure 11 shows the expected output when Promotion Automatch is set to Min Max Cardinality, which is as follows: SP-A has a default quantity of 1 and the attribute value 2. SP-B has a default quantity of 1 and the attribute value 2. SP-B has a default quantity of 1 and the attribute value 4.

In both cases (that is, when Promotion Automatch is set to Default Cardinality and Min Max Cardinality), the expected output is the same. Note the following:

- The attribute value of 3 on SP-A is changed to 2 , because 3 was not specified in the include list in Promo-D for SP-A.
- The existing SP-B is left unchanged, because its attribute value of 2 is permitted in Promo-D, although it is not the first in the list.
- The added SP-B has an attribute value of 4.

To apply a promotion to a customizable product

- 1 Create the product structure for CP-A and Promo-D as shown in [Figure 9](#).
- 2 Add CP-A to a quote or order line item, and then customize CP-A as shown in [Figure 10](#).
- 3 Associate Promo-D to CP-A using the promotion picker.

[Figure 11](#) shows the expected output for attribute defaults when Promotion Automatch is set to Default Cardinality, and when Promotion Automatch is set to Min Max Cardinality.

NOTE: The expected output for attribute defaults when you apply a promotion to a customizable product is the same whether Promotion Automatch is set to Min Max Cardinality or Default Cardinality.

For more information about how Siebel CRM behaves depending on the Promotion Automatch argument value, see [Table 32 on page 175](#).

11 Working with Quotes

This chapter describes how users work with existing quotes. It includes the following topics:

- [“About Quotes” on page 187](#)
- [“Updating Opportunities from Quotes” on page 187](#)
- [“Including Quote Items in a Forecast” on page 188](#)
- [“Accessing An Existing Quote” on page 189](#)
- [“Revising a Quote” on page 189](#)
- [“Converting a Quote to an Order” on page 190](#)
- [“Converting a Quote to an Agreement” on page 190](#)
- [“Displaying Charts to Analyze Quotes” on page 191](#)

For information about creating a new quote, see [Chapter 10, “Creating a Quote or Sales Order.”](#)

About Quotes

A quote is an offer to a customer for specific products and services at a specific price. Quotes can be generated by end users such as call center agents, sales representatives, and sales administrators. The quote may include products and services (configured to show the customer-selected attributes), effective dates, price lists, any discounts by line item and by account, and the price for each item.

For information about creating quotes, see [Chapter 10, “Creating a Quote or Sales Order.”](#)

Updating Opportunities from Quotes

When a quote is associated with an opportunity, an end user can update the opportunity with new quote information. When an end user updates the opportunity, information is updated in the Products and Revenues tab. The revenue associated with the quote is transferred to the opportunity listed in the quote’s Opportunity field. It is important to keep opportunity information updated in this way in order to maintain accurate forecasts and charts.

Clicking Update Opportunity deletes only lines associated with the corresponding quote. For example, a monitor appears in two separate quotes, and Update Opportunity is run for both quotes, so the monitor appears twice in the products for the opportunity. If you go to one of the quote line items, delete the monitor line item, and click Update Opportunity, only the opportunity product and revenue line associated with that quote line item will be deleted.

If you do not see the quote number associated with an opportunity product, then use the Update Opportunity method from the menu for the association to happen.

NOTE: If you are using multiple price types, updating an opportunity from a quote only creates revenue records for one time charges. It does not create multiple revenue records for recurring charges. This feature works differently in industry applications, as described in the section about updating opportunities from quotes in *Siebel Order Management Guide Addendum for Communications*.

CAUTION: Before updating an opportunity from a quote, verify that the associated price list is available for the quote. If the price list is not available, the product will be deleted from the opportunity.

To update an opportunity from a quote

- 1 Navigate to the Quotes screen, then the Quotes List view.
- 2 In the Quotes list, select the desired quote.
- 3 In the Quotes list, from the menu, select Update Opportunity.

Including Quote Items in a Forecast

When an end user updates an opportunity from a quote, one piece of information that is sent is whether a product is forecastable. The default setting for this in the quote is determined by a setting in Product Administration. By default, in Product Administration, components of products with components and product bundles are marked as forecastable, unless explicitly changed. Simple products are marked as forecastable and cannot be changed in Product Administration. Components of bundles are marked as not forecastable by default, but can be changed to forecastable.

If end users want to make sure that a product in a quote will be forecastable, they can review the setting in the quote, and mark it as forecastable if necessary.

To mark an item in a quote as forecastable

- 1 Navigate to the Quotes screen, then the Quote list view.
- 2 In the Quotes list, drill down on the name of the desired quote.
- 3 Click the Line Items view tab, select the desired line item.
- 4 In the Line Item Detail subview, make sure that the Forecastable check box is selected.
- 5 If it is not already selected, select the Forecastable check box to include this item in forecasts.
- 6 When you are finished working on the quote, update the opportunity.

For information about opportunities, see [“Updating Opportunities from Quotes” on page 187](#).

Accessing An Existing Quote

When an end user wants to review an existing quote or make changes to it, the end user can access the quote from a number of different places in your Siebel Business Application. The procedures in this documentation primarily describe accessing quotes from the Quotes screen, but end users can also access quotes from an opportunity, from an account, from a contact, or from a service request.

To access an existing quote

- 1 Navigate to the one of the following.
 - Opportunities screen, then the Opportunities List view to access an existing quote from an opportunity.
 - Accounts screen, then the Accounts List view to access an existing quote from an account.
 - Service Requests screen, then the Service Request List view to access an existing quote from a service request.
 - Contacts screen, then the Contacts List view to access an existing quote from a contact.
- 2 Drill down on the opportunity, account, service request, or contact that the quote is associated with.
- 3 Click the Quotes view tab.
- 4 In the Quotes list, drill down on the quote name.

The quote is displayed in the Quotes screen.

The end user can now make additions or changes to the quote, if it is still in progress, or the end user can revise the existing quote, if appropriate.

Revising a Quote

End users can make changes to an initial quote to keep it updated with the appropriate products, price lists, discounts, and so forth. During negotiations with a customer, an end user can add or delete products from a quote and compare features and price.

The Revise feature allows an end user to revise your original quote by creating a new quote record with the same quote number. The versions are distinguished by a revision number. All revisions of a quote appear in the quote list.

Making changes to a quote does not automatically create a new version of the quote. If the end user wants to keep the original quote and have a revision, the user must complete the steps in the following procedure to create a revised quote.

NOTE: When the end user revises a quote, the original quote becomes inactive and read-only.

To revise a quote

- 1 Navigate to the Quotes screen, then the Quotes List view.
- 2 In the Quotes list, select the quote you want to revise.
- 3 Click Revise.

A new quote, with the same quote number is created.

- 4 Edit the information in the revised quote as needed.

In the Quotes screen you see both the original quote and the revised quote. You can verify which one is the revision by looking in the Revision column.

Converting a Quote to an Order

When a customer agrees to purchase the items on a quote, an end user can convert the quote to an order.

To convert a quote to an order

- 1 Navigate to the Quotes screen, then the Quotes List view.
- 2 In the Quotes list, drill down on the name of the desired quote.
- 3 Review the line items and related details and make sure they contain the correct information.
- 4 Click the Orders view tab.
- 5 Click either Sales Order or Service Order, depending on the type of order you want to create from this quote.

An order is created from the quote, and appears in the Orders list.

- 6 To work with the order, drill down on the order number.

The Sales Order screen, Line Items view or the Service Order screen, Line Items view appears.

Converting a Quote to an Agreement

Rather than converting a quote to an order, you can convert a quote to an agreement. There are a number of reasons that you would create an agreement from a quote:

- To create recurring service contracts that identify terms and conditions, including service level agreements and payment terms.
- To create of pricing contracts that identify sets of products and services and associated pricing for future purchases.

For more information about agreements, see *Siebel Field Service Guide*.

To convert a quote to an agreement

- 1 Navigate to the Quotes screen.
- 2 In the Quotes list, drill down on the name of the desired quote.
- 3 Review the line items and related details and make sure they contain the correct information.
- 4 Click the Agreements view tab.
- 5 Click AutoContract.

An agreement is created from the quote, and appears in the Agreements list.

- 6 To work with the agreement, drill down on the agreement number.
The Agreements screen, Line Items view appears.

Displaying Charts to Analyze Quotes

You can use the following charts to analyze quotes:

- **Account Analysis.** Shows the number of quotes for each account.
- **Account Discount Analysis.** Shows the average discount for the quotes for each account.
- **Rep Discount Analysis.** Shows the average discount for the quotes for each sales representative.
- **Status Analysis by Rep.** Shows the status of the quotes for each sales representative. Typical statuses are In Progress, Approved, Accepted, and Order Placed.

NOTE: The charts analyze all quotes displayed in the Quotes list. It does not matter which quote is selected when you click the Charts view tab. You can display the My Quotes view, My Team's Quotes view or All Quotes view before creating a chart. You may also use a query to limit which quotes are displayed in the list and included in the chart.

To display charts analyzing quotes

- 1 Navigate to the Quotes screen, then the Charts view.
- 2 Optionally, use a query in the Quotes list to display only the quotes that you want to be included in the chart.
- 3 In the Show drop-down list, select the type of chart you want to view.
- 4 To view different types of chart, such as pie charts and horizontal bar charts, select the chart type from the other drop-down list and click Go.
- 5 If you are viewing the Status Analysis by Rep chart, you can use the By drop-down list to display the result either by sales representative or by status.

12 Working with Sales Orders

This chapter describes how end users work with existing orders. It includes the following topics:

- [“Accessing An Existing Order” on page 194](#)
- [“Submitting an Order” on page 194](#)
- [“Associating an Activity Plan or Activity with an Order” on page 195](#)
- [“Approving an Order” on page 196](#)
- [“Checking the Status of Order Shipments” on page 196](#)
- [“Revising an Order” on page 197](#)

For information about creating a new order, see [Chapter 10, “Creating a Quote or Sales Order.”](#)

About Orders

An *order* is a commitment on the part of the customer to purchase products and services at a specific price. Orders can be generated from quotes or created directly by sales people, call center agents and sales administrators. Orders can be created and placed all at once, or developed in stages as the customer clarifies the configuration of the items, requests availability, payment information, shipping information, and other details. When the order is complete, the end user submits it.

After the order is placed, a call center agent can monitor the order, proactively informing the customer of order status and delivery information. In the case of a customer inquiry, an agent can use the Get Status business service to obtain the latest information and determine the status of the order, if the order is being processed by the back office. In the event that post-order service is required, service requests and returns can be created against the order.

Orders are identified as either sales orders or service orders. Sales orders are generally for new products, while service orders are used to support service parts processing, including part locator, repair depot, and so on.

End users work with sales orders and service orders in very similar ways, however some features are specific to each type. This chapter focuses primarily on sales orders. For details about working with service orders, see *Siebel Field Service Guide*.

Accessing An Existing Order

An end user can access an existing order from most of the same places where the end user can create an order.

In addition to accessing the order from the Sales Order screen, the end user can access it from other screens, as described in the following procedure.

To access an existing order

- 1 Navigate to one of the following screens:
 - Accounts screen, then Accounts List view to access an existing order from an account.
 - Service Requests screen, then Service Request List view to access an existing order from a service request.
 - Contacts screen, then Contacts List view to access an existing order from a contact.
 - Agreements screen, then Agreements List view to access an existing order from an agreement.
- 2 Drill down on the account, service request, contact or agreement that is associated with the order.
- 3 Click the Orders view tab.
- 4 In the Orders list, drill down on the order number of the desired order.

The order is displayed in the Sales Order or Service Order screen, where the end user can continue to work with it.

Submitting an Order

After the end user has completed the information for an order, the user submits it. Submitting the order sends the order to the manufacturing system or warehouse system for fulfillment.

Submitting the order typically sets the status to Booked.

Before end users submit an order, they may want to check to make sure it has an Active status, current dates, a valid price list, and that any customizable products have been configured appropriately.

To submit an order

- 1 Navigate to the order that you want to submit.
- 2 In the Sales Order form, click Submit.

If your company has configured an approval process, the order is evaluated by assignment manager rules, and is routed to a manager for approval, if appropriate. If the order meets any approval rules, the order is validated and submitted to your back office system for fulfillment.

Associating an Activity Plan or Activity with an Order

Individual activities or activity plans (collections of activities) can be associated with line items in your order.

Activities are tasks that should be performed after the order has been finalized and submitted. For example, when a customer purchases an item that needs to be installed, an activity template might list all of the activities that need to occur to support that installation. When that template is added to the line item, the activities from it are assigned to the appropriate people, and will appear in their activity lists.

Typically the administrator sets up activity templates in advance so that end users can add them to items in an order. End users can also add individual activities. For information on setting up activity templates, see [“Setting Up Activity Plan Templates” on page 35](#).

To associate an activity plan template with a line item

- 1 Navigate to Sales Orders screen, Line Items, and then Activity Plans view.
- 2 Select the order and line item that requires activities.
- 3 In the Activity Plans list, add a new record.

Today's date is assigned as the planned start date for the activities. You can change it, if required.

- 4 Select the appropriate activity plan template from the Templates drop-down list.

You see the activities associated with the template in the Activities list.

- 5 Click the Activity view tab.
- 6 In the Activity list, make any appropriate adjustments to the activities.

If an employee's name is indicated in the activity, the activity will display for that person when the person goes to the My Activities view.

Use the following procedure to add an individual activity to a line item.

To add an individual activity to a line item

- 1 Navigate to the order with which you want to associate an activity plan.
- 2 Select the line item that requires activities.
- 3 Click the Activity view tab.
- 4 Click New to add a new record.

The activity type defaults to Appointment.

- 5 Complete the fields to define the activity.

Approving an Order

Some orders will require approval. If your company has configured an approval process as part of its order management process, an order may be automatically flagged for approval depending on the total price of the order. A typical approval process would cause the status to be changed to Awaiting Approval and the approver's name to be inserted in the Approved by field when the sales representative clicks Submit.

For example, if an end user has authority to place orders for \$1,000, and a customer wants to order merchandise totalling \$1,200, the order needs to be approved before it can be submitted.

The steps below describe the steps an end user might take to approve an order when that user is the approver. The exact steps may vary, depending on your company's configuration of this process.

To approve an order

- 1 Navigate to the Sales Orders screen, then the Orders List view.
- 2 Sort the list of orders by status and scroll the list, if necessary, to bring orders with the status Awaiting Approval into view.
- 3 Drill down on the order number of an order you want to approve.
- 4 Review the details of the order to make sure it meets your approval.
- 5 When you are ready to approve the order, in the More Info view tab, select the Approved check box.

Checking the Status of Order Shipments

After an order has been submitted, an end user can monitor it by checking the status of order shipments. The end user makes sure the order is being handled appropriately and to provide customers with information about order status and delivery.

You must have a back-office system that tracks the shipping of your products, and you must integrate that back-office system with the Siebel Business Application to allow the end user to see the shipping status of products.

To check order shipments

- 1 Navigate to the order you want to check.
- 2 Click the Shipments view tab.

The Shipment list and the forms under it provide current details about the shipment of the order.

Revising an Order

An end user can edit or revise a customer's original order, which creates a new version of the same order. Revising helps an end user keep track of changes as the order evolves. This is useful when adding or deleting products, and can also be used if an order has expired.

When an end user revises an order, the status field is automatically set to Pending.

The Revise feature allows an end user to revise the original order by creating a new order record with the same order number. The versions are distinguished by a revision number. All revisions of an order appear in the order list.

Making changes to a order does not automatically create a new version of the order. If the end user wants to keep the original order and have a revision, the user must complete the steps in the following procedure to create a revised order.

NOTE: When an end user revises an order, the original order becomes inactive and read-only.

To revise an order

1 Navigate to the order you want to revise.

2 In the Sales Order form, click Revise.

A new version of the order is created, with the same order number.

3 Make the required changes to the order—add or remove line items, change attributes, or make additional changes.

4 In the Order header summary, click Submit.

13 Using Asset-Based Ordering

This chapter describes how employee end users, such as salespeople and customer service representatives (CSRs), work with quotes and orders using asset-based ordering. It includes the following topics:

- [“About Asset-Based Ordering” on page 199](#)
- [“Basic Concepts of Asset-Based Ordering” on page 200](#)
- [“Scenario for Asset-Based Ordering” on page 206](#)
- [“Creating a Quote Using Asset-Based Ordering” on page 207](#)
- [“Creating a Quote that Modifies an Asset” on page 209](#)
- [“Ungrouping Quote or Order Line Items” on page 210](#)
- [“Editing Quote Line Items Using Asset-Based Ordering” on page 211](#)
- [“Converting Quotes to Orders Using Asset-Based Ordering” on page 212](#)
- [“Editing Order Line Items Using Asset-Based Ordering” on page 213](#)
- [“Submitting an Order Using Asset-Based Ordering” on page 214](#)
- [“Revising a Submitted Order Using Asset-Based Ordering” on page 214](#)
- [“Creating a Follow-On Order” on page 216](#)
- [“Modifying the Service Profile” on page 216](#)
- [“Deactivating an Installed Asset” on page 217](#)
- [“Suspending and Resuming Service” on page 218](#)

NOTE: The procedures in this chapter use the Account Summary view as their starting point, because it is a central point for viewing information about an account. The Account Summary view is part of the Order Processing module. If you have not licensed the Order Processing module, employee end users can start from one of the other screens that allow access to quotes and orders, such as the Quotes screen and Orders screen.

About Asset-Based Ordering

Asset-based ordering allows companies to:

- Generate asset records from orders
- Create quotes for new products and services based on existing assets
- Create quotes to modify existing products and services
- Modify in-process orders that have been submitted for fulfillment

- Suspend, resume, or discontinue an existing service
- Have visibility into the asset life cycle during customer interactions

Asset-based ordering is included with Siebel Order Management, but it must be activated separately, as described in [“Setting Up Asset-Based Ordering” on page 39](#).

Because asset-based ordering is based on workflows and business services, you can customize it to suit your business model. For more information, see [Chapter 15, “Workflow Reference for Employee Asset-Based Ordering.”](#)

Figure 12 shows the cycle of events for asset-based ordering.

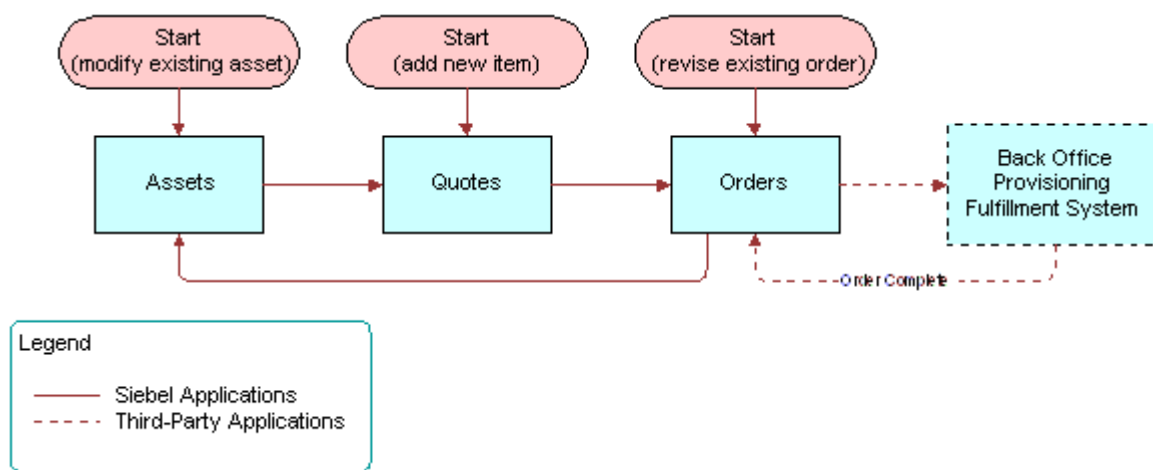


Figure 12. Asset-Based Order Management Cycle

Basic Concepts of Asset-Based Ordering

Asset-based ordering gives end users the ability to create, modify, and process orders that contain complex pricing, combined billing types, combination services, or multiple suppliers. For example, a single sales order for a telecommunications customer can contain products and services from multiple suppliers, each provisioned in a different way. Such an order might include service installation, monthly-billed services (such as voice mail and usage-based calling plans), and feature services such as call forwarding. These services have different price types—one time, recurring, and usage-based—that need to be included in the same order.

The basic concepts of asset-based ordering are described in the following topics:

- [“Customer Profile in Asset-Based Ordering” on page 201](#)
- [“About Products and Assets” on page 201](#)
- [“About Quotes and Orders for Asset-Based Ordering” on page 201](#)

Customer Profile in Asset-Based Ordering

The customer's *service profile* is a record of all the active assets for that customer. An *asset* is a product or service currently provided to a customer that has been marked as a trackable asset in the product record, in the Product Administration screen. Assets are sometimes referred to as *installed assets* and are listed in the Installed Assets view.

When you have asset-based ordering turned on in Siebel Order Management, end users can use the Accounts screen, Installed Assets view to create orders that are based on a customer's existing assets. Installed assets can include both products and services.

When these views are used with the automated asset-based order workflows, the amount of time to create quotes, orders, and asset records is reduced because many tasks are automated.

About Products and Assets

The following concepts related to products and assets are important in asset-based ordering.

Service Products

A service product is a product that is not a physical product, although it is often associated with one. For example, a service that is delivered over time, such as telephone or electrical service, is considered a service product. A service product may have physical components. For instance, a residential electric service would include a meter. A product becomes a service product if it is marked as one in the product record.

Integration ID

An *integration ID* is a unique identifier that is assigned to each trackable asset when it becomes a line item in a quote or an order. The integration ID does not appear on the screen.

NOTE: It is important that this field not be used for other purposes, as this may affect the functions of the Order Line Items, Quote Line Items, and Assets.

About Quotes and Orders for Asset-Based Ordering

A quote is an offer to a customer for specific products and services at a specific price. Quotes can be generated by employee end users such as call center sales representatives, by customers using Siebel eSales, or by a channel partner. The quote might include the following:

- Products and services that are configured to show the customer-selected attributes
- Any discounts by line item and by account
- Price for each item
- Service and billing accounts for each item

If you use Multiple Price Types, they detail one-time, recurring, and usage-based fees that will be incurred.

For products with components, all levels in the product hierarchy are treated equally. Every level can have pricing, a service asset, and attributes. This structure allows end users to create one quote that spans multiple service accounts and billing accounts. For example, when placing a quote for phone services that span multiple locations, you can identify agreement names for individual line items, as well as applying appropriate pricing discounts and other rules.

Active Quote

An end user session can have only one active quote at a time. Each item that is added to a quote for a customer is added to the active quote. A key value of an active quote is it avoids creating new quotes when you are working with the same customer. The active quote adds all quotes of services or products requested by one customer into one quote so that all quotes are together.

A quote becomes the active quote when:

- The employee end user creates a new quote by clicking the New, Modify, Deactivate, Suspend or Resume buttons in the Installed Assets or Account Summary view.
- The employee end user navigates to the Quote Details view and clicks the Profile button.
- The customer end user goes to the shopping cart.

When an end user makes changes to the service profile of a different account, a different quote is made active. When a new quote is made active, the previously active quote becomes inactive by implication.

When a quote is converted to an order, the quote becomes inactive.

NOTE: If the employee end user clicks **New** in the **Account Summary** or **Installed Assets** view, and there is already an active quote for the same account, the end user is taken to the existing active quote. An additional new quote is not created.

Active Order

An order becomes active only when the employee end user creates a new order by clicking the New, Modify, Deactivate, Suspend and Resume buttons in the Installed Assets or Account Summary View.

When an order is submitted, the order becomes inactive.

Quote-to-Sales Order

When a customer approves a quote and it becomes an order, an employee end user such as a CSR (Customer Service Representative) can automatically write the quote information into an order with the click of a button. When the end user clicks the Sales Order button or the Auto Order button, a workflow does the following:

- Generates a new sales order
- Converts all line items in a quote to order line items

- Explodes all quote line items, so that there multiple quantities of an item become individual line items

After a quote is converted to a sales order, the original quote still exists, and can be referenced. You will see the quote number in the order header.

NOTE: All orders created from quotes are considered *Sales Orders*. These orders may include items that are physical products and items that are service products. Sales Orders should not be confused with *Service Orders*. Service Orders are created as a result of a service request and are managed as part of Siebel Field Service.

Quote and Order Concepts in Asset-Based Ordering

This section describes quote and order concepts that are specific to asset-based ordering.

Account and Contact Based Ordering

You can base a new order on the assets owned by either an account or a contact. Orders based on accounts are created in the Accounts screen, Account Summary view. Orders based on contacts are created in the Contacts screen, Contact Summary view.

New Quotes and Orders

A new quote or order identifies products and services that are first-time acquisitions for a customer or that are repeat orders such as additional software licenses.

After being processed and fulfilled, new orders result in new assets that become part of a customer's profile. A line item from an order becomes an installed asset if it is marked as a trackable asset in the product record.

Multiple Open Orders

Multiple orders may be in progress for a particular customer or even a particular installed asset at any given time.

One benefit of having multiple open orders is that when a customer places an order and then reconsiders and requests different options before the order has been provisioned, both requests can be placed, tracked, and addressed appropriately.

After an order has been placed, the end user can change it in the following ways:

- Create a modify order.
- Create a supplemental order.
- Create a follow-on order.

This is handled by two processes, Modify Order and Supplemental Order. Creating a supplemental order does not actually create an additional order; it revises an existing order.

Modify Quotes and Modify Orders

A modify quote or order is created when the customer asks to make a change to an existing product or service.

For example, the local telephone company provides local phone service to a residential customer. After the service has been installed, customers may want to make additions and changes to the services they receive, such as adding call waiting or changing the number to call when forwarding a call.

Each of these changes is a modification to the current asset. When the customer inquires about these changes, the sales representative issues a modify quote for the change. After the customer accepts the modify quote, it becomes a modify order.

When a modify order is placed, it does not modify the asset listed in the customer's profile, because it has not been fulfilled yet. The customer profile is only changed when the order is fulfilled.

Supplemental Order

A *supplemental order* is created by revising an open order. A supplemental order overrides an order that has already been sent to the fulfillment system, but is still in process and has not yet been fulfilled. Supplemental orders are useful when a customer wants to make further changes to an order while it is in transit— that is, before its status is Complete in the fulfillment system.

The following is an example of using a supplemental order.

A customer currently subscribes to a wireless plan and now wants to change the call-forwarding number associated with the plan. In the Account Summary view, Installed Assets list, the call center representative selects the plan, clicks Modify, and creates a quote for the change. With the customer's approval, the sales representative then converts the quote to an order and submits it. The order is then sent to a fulfillment system. There is now an open order for this item.

An hour later, the customer calls again and wants to back out the change. The call center representative again goes to the Account Summary. In the Orders list, the call center representative drills down into the open order and reviews the order. The representative selects the appropriate line item, makes a change during the configuration session that returns the call-forwarding number to the previous number, and clicks Done to add the change. The representative then submits the supplemental order.

In this case, the change the end user submits is supplemental to the original order.

NOTE: Some fulfillment systems do not support supplemental orders. Others only support a limited set of allowed changes. To support the widest possible set of fulfillment systems, your Siebel Business Application supports these types of changes to an order: Add, Delete, Update, and No Change.

Follow-On Order

When an order has reached the point of no return, so it is not possible to create a supplemental order, you can create a follow-on order for a customer, which allows the customer to place a new order for the same service using the original order as a starting point.

Action Codes

Action codes for line items on quotes and orders help to keep track of changes made through modify orders and supplemental orders. These codes are:

- **Add.** Instruction to add a new product to the customer assets.
- **Update.** Instruction to update either an attribute value or delta field value for an existing product (either asset or ordered)
- **Delete.** Instruction to delete or deactivate or disconnect an existing product (either asset or ordered).
- - . Do not change an existing product.
- **Suspend.** Instruction to update the status of an asset to *Suspended*.
- **Resume.** Instruction to update the status of an asset from *Suspended* to *Active*.

These action codes appear next to line items on quotes and orders to show which items will be affected, and which will not.

Auto Asset Button

You might see an Auto Asset button on the Orders screen. This button is used for demonstration purposes, to show how order line items can be converted into assets that display in the Installed Assets view of the customer's service profile.

In actual deployments, a workflow is used to create assets automatically from completed order line items, so this button is not used.

Ungrouping or Exploding Quote Line Items

When a quote is converted to an order, line items with a quantity greater than one can be *ungrouped* to become multiple items, each with a quantity of one. This automatic ungrouping is referred to as *exploding* the items. Each line item becomes an individual asset when the order is fulfilled.

When this feature is turned on, you can automate the ungrouping of multiple quantities of products that will become assets, so that each can be given a unique integration ID.

NOTE: Ungrouping or exploding items is only required when the items will become trackable assets, and therefore require integration IDs. Items that will not become assets may remain as an order for a multiple quantity, without being ungrouped.

The Ungroup feature can simplify the process of creating bulk orders, as shown in the following example:

- The customer wants to order ten local lines, with similar configurations: five will have voice mail, five will have call waiting. The customer wants each of the ten lines to have the same four additional features.
- An employee end user can start by creating one line item—with the four features that are desired on all of them—and the quantity two. Then, the end user ungroups that item, so that there are two items.

- Next, the end user takes one of those two items, adds voice mail to it, and changes the quantity to five. Then, the user takes the second line item, adds call waiting to it, and changes the quantity of it to five. Finally, the user ungroups both line items, so that there are ten individual line items.
- Now each line item has an integration ID and a field for Service ID. Depending on the implementation of the Siebel Business Applications with the back end systems, the end user might click a button to populate the field with phone numbers from the asset management system, or a phone number might be assigned as part of the provisioning process.

Scenario for Asset-Based Ordering

This scenario provides an example of a process performed by customer service representatives (CSRs) in a telecommunications company. Your company may follow a different process according to its business requirements.

During a typical day in a customer service organization, a group of CSRs responds to customer phone calls to generate quotes and sales orders.

If the caller is new, the CSR creates an account and adds the caller to the database. If the caller is an existing contact, the CSR searches the database to display the contact's record.

Then the CSR launches Advisor to help understand the customer's needs. For example, if the caller asks questions about your company's product, the CSR can access a summary of product features, literature about the company, and its competitors.

If the conversation leads to a potential sale, the CSR will create a quote and fax, email, or mail it to the caller. The caller can use the quote to get approval to place the order.

The information collected during the call is permanently stored, associated with the contact's record.

When the caller contacts the CSR to place the order, the CSR reviews the quote and converts the quote to an order. Any changes to the product and pricing definitions since the quote was saved are displayed in the quote the CSR views.

The CSR enters any additional information required for the order and submits the order. A new Order record is created. After the order has been fulfilled, trackable items become assets, and appear in the Account Summary view for this customer.

At a later date, the customer may contact the CSR to add or delete items from the order. The order may be pending or in another status, such as complete. In either case, the CSR can generate a quote and order to change the initial order.

Creating a Quote Using Asset-Based Ordering

End users can use the following procedure to create a quote for an existing customer purchasing a new service or product.

You can create a quote based on the assets of either an account or of a contact. This procedure shows how to create a quote for an account. Use a similar procedure to create a quote for a contact, but begin by navigating to the Contact screen, then the Contacts List view.

When you use this procedure, the account type determines whether a quote or order is created. If the account type is *Residential*, quotes are not created and all modifications of the service profile create an order directly. For all other account types, a quote is created.

NOTE: The following procedure shows how to create a quote for an asset owned by an account. You can also create a quote for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To create a quote

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Account Summary view tab.
- 4 In the Installed Asset list, click New.

The Quote form and Line Item list appear.

NOTE: If there is already an active quote for this account, it is shown. If there is not already an active quote, a blank new quote appears.

In the Quote form, the Status field displays In Progress and the Quote # field displays a unique number generated by the system. The Quote Name field also displays this unique number, which you may change to a quote name.

- 5 In the Line Items list, click Add Items.
- 6 In the Pick Products dialog box, select the items that the customer wants, and click OK.

The Action field for the line items you added displays Add. For products and services that are customizable, the Customize button is available.

- 7 To customize an item, select it in the Line Items list and click Customize.

A Configurator session launches and displays selection pages.

- 8 Make the selections that the customer wants, and click Done.

The Quote Line Items list appears with the quote.

Some fields in the Line Items list, and the Totals form below it, are described in the following table:

Field	Comments
Item Net Price	The price of the line item after discounts from pricing rules, volume discounts, or manual discounts. (Read-only)
Extended Price	Quantity times the start price.
Net Discount%	The percentage of the start price that the discount equals. If a discount was entered in either Discount Amount or Discount Price, this percentage is calculated using the discount entered and the start price. (Read-only)
Extended Net Price	Quantity times the unit net price. (Read-only)
Discount Amount	The amount to be discounted for each unit, as a dollar amount.
Discount%	The discount amount relative to the unit price, shown as a percentage.
Discount Price	The total amount to be charged for the item and for each unit.
Non-Discount Extended Price	The extended start price.
Sub-Total	The sum of all items within a product with components with a one-time price type.
MRC Subtotal	Monthly recurring charge subtotal. The sum of all items within a product with components with a per-month UoM.
Action	Action required for processing a modify order. Choices are add, update, delete, or - (dash). A dash means the item was not changed, though the associated child line items may change.
Agreement Name	Agreement under which the quote line item was made.
Adjustment MRC	Total adjustments for monthly recurring charges.
Adjustment NRC	Total adjustments for non-recurring charges.
Item Total MRC	Total charges for monthly recurring charges.
Item Total NRC	Total charges for non-recurring charges.
Net Total MRC	Net total for monthly recurring charges.
Net Total NRC	Net total for non-recurring charges.
Total Item Discount MRC	Total discounts for monthly recurring charges.
Total Item Discount NRC	Total discounts for non-recurring charges.

Creating a Quote that Modifies an Asset

Employee end users can use the following procedure to create a quote that is based on an asset. For example, a customer has five phone lines installed as part of a small business service product. The customer calls and wants to add more phone lines. You would use the existing installed asset as the basis for a new quote that adds more phone lines.

When you use this procedure, the account type determines whether a quote or order is created. If the account type is *Residential*, quotes are not created and all modifications of the service profile create an order directly. For all other account types, a quote is created.

NOTE: The following procedure shows how to create a modify quote for an asset owned by an account. You can also create a modify quote for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To modify an installed asset

- 1 Navigate to the Account screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Account Summary view tab.
- 4 In the Installed Asset list, select the installed asset you want to modify.
- 5 Click Modify.

Siebel Configurator displays the current configuration of the item, adjusted for any open orders.
- 6 In the Configurator selection pages, modify the configuration by adding or deleting items or by changing item attribute values.
- 7 When you are finished modifying the configuration, click Done in the selection pages.

The Quote form appears and the changes you made are shown in the Line Items list.
- 8 In the Line Items list, verify that items display correctly and have the correct action codes.

The configuration displayed in the quote is a composite of the asset as it is currently installed and adjustments to the asset requested in open orders.
- 9 Click Profile to return to the Account Summary view.

Ungrouping Quote or Order Line Items

If the product's Auto Explode flag is set, when a quote is turned into an order, line items with a quantity of more than one are *ungrouped* to become separate instances, each with a quantity of one.

Ungrouping only applies to asset-based ordering and to assets for which the Auto Explode flag is set. If the end user enters quantities greater than one, the quote-to-order process automatically ungroups them.

Ungrouping is needed to give each asset separate a Service ID, so it can be tracked and serviced in the future. It also gives each asset a separate integration ID, which is used by the back-end provisioning system for fulfillment.

The ungroup feature allows you to configure once for multiple items and then splitting them into individual items that can have their own variant configurations, telephone numbers, or Billing/Service accounts, as described in [“Ungrouping or Exploding Quote Line Items” on page 205](#).

NOTE: This procedure shows how to ungroup quote line items. Use a similar procedure to ungroup order line items, but drill down on the Orders list rather than the Quotes list.

NOTE: This procedure shows how to ungroup line items in a quote for an asset owned by an account. You can also ungroup line items in a quote for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To ungroup quote line items

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Account List, drill down on the account name.
- 3 Click the Account Summary view tab.
- 4 In the Quotes list, drill down on the desired quote number.
The Quote view appears.
- 5 Click the Line Items view tab.
The line items in the quote appear.
- 6 Select the line item you want to ungroup.
This should be a line item with a quantity greater than one, with items that need to be configured differently.
- 7 From the Line Items menu, select Ungroup.
The quote ungroups the item and displays it as multiple line items, with a quantity of one for each item.

Editing Quote Line Items Using Asset-Based Ordering

End users may need to edit line items when creating a new quote, or when returning to an existing quote.

Use the procedure below to do one of the following:

- Edit line item details for a simple product.
- Configure or reconfigure a product with components in a quote an end user is creating in the Quotes screen. If a customer asset exists, Configurator selection pages display the asset adjusted for any open or pending orders.
- Edit the configuration of a product with components in a quote created by modifying an asset or deactivating an installed asset.

NOTE: The following procedure shows how to edit quote line items for an asset owned by an account. You can also edit quote line items for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To edit quote line items

- 1 Navigate to the Account screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Account Summary view tab.
- 4 In the Quotes list, click the desired Quote Number.
The Quote form appears, displaying details of the quote.
- 5 In the Line Items list, select the line item that you want to edit and change the values of the fields directly in the line item.
The action code of the line item will be changed to Update.
To retain manual discounts, click the Keep Discount check box in the Line Item Detail form.
- 6 To customize an item, select a customizable product in the Line Items list.
The Customize button becomes active.
- 7 Click Customize.
A Configurator session launches and displays selection pages, which the current configuration of the customer asset adjusted for any open orders.
- 8 Modify the configuration of the customizable product or service as needed and click Done.
The revised configuration displays in Line Items.

Converting Quotes to Orders Using Asset-Based Ordering

After a customer agrees to the details of a quote, the employee end user follows the procedure below to convert a quote into an order.

NOTE: The following procedure shows how to convert quotes to orders for an asset owned by an account. You can also convert quotes to orders for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To convert a quote to an order

- 1 Navigate to the Account screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Account Summary view tab.
- 4 In the Quotes list, drill down on the desired Quote Number.
The Quote form appears, displaying details of the quote.
- 5 Click the Orders view tab.
- 6 In the Orders list, click Sales Order.

The quote is converted to an order and appears in the Orders list.

The following Business Component fields are transferred from the quote to the order when the user click Sales Order. Some of these fields are not exposed in the UI:

- **To Order.** Account Id, Discount, Discount Amount, Discount Amount MRC, Discount Reason, Contact Id, Currency Code, Price List Id, Order Type, Quote Id, Agreement Id.
- **To Order Item.** Base Price, Asset Id, Service Id, Discount Amount, Discount Amount MRC, Discount Percent, Discount Percent MRC, Discount Source, Volume Discount Id, Volume Discount Item Id, Unit Price, MRC CxTotal, NRC CxTotal, Due Date, Agreement Id, Quantity Requested, Product Id, Action Code, List Price, Asset Integration Id.
- **To Order Item Attribute.** Name, Required, Sequence, Unit of Measure, Validation, Description, Action Code, Data Type, Value, Attribute Id, Display Name, Hidden, LOV Type, Read Only.

Editing Order Line Items Using Asset-Based Ordering

Employee end users can edit the configuration of customizable products in pending orders by using the following procedure. A customer asset does not need not be associated with the order.

If the order an end user is changing is a modification to a customer asset, all open orders are applied to the asset before it is displayed in the Configurator selection pages.

NOTE: The following procedure shows how to edit order line items for an asset owned by an account. You can also edit order line items for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To edit order line items

- 1 Navigate to the Account screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Orders view tab.
- 4 In the Orders list, drill down on the desired Order #.

The Sales Order form and Line Items list appear, displaying details of the order.

- 5 In the Line Items list, select the line item you want to modify.
- 6 In the order's Status field, make sure the status is Open or Pending.

If the status is Complete, the order has been fulfilled. If the customer wants to make a change to a completed order, you must create a new order or revise an existing order. To create a new order, which you must do when modifying an installed customer asset, see ["Modifying the Service Profile" on page 216](#). To revise an existing order, see ["Revising a Submitted Order Using Asset-Based Ordering" on page 214](#).

- 7 Select the line item that you want to edit and change the values of the fields directly in the line item.

The action code of the line item will is changed Update.

- 8 To change the configuration of an item, select the line item you want to edit and click Customize. A Configurator session launches and displays selection pages.
- 9 Modify the configuration of the product or service as needed, and click Done.

The revised configuration appears in the Line Items list. The Revision field displays the version of the order, which is incremented when the order is revised to create a supplemental order.

Submitting an Order Using Asset-Based Ordering

Employee end users who are using asset-based ordering can use the following procedure to submit an order.

NOTE: The following procedure shows how to submit an order for an asset owned by an account. You can also submit an order for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To submit an order

- 1 Navigate to the Account screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Account Summary view tab.
- 4 In the Orders list, drill down on the desired Order #.
The Sales Order form and Line Items list appear displaying details of the order.
- 5 In the Sales Order form, click Submit.
The Status changes to Open for the order and for any line items that were previously pending.

Revising a Submitted Order Using Asset-Based Ordering

Employee end users may need to revise an order that has been submitted. It must be revised before it can be changed and resubmitted. This is also called a *supplemental* order. The following procedure describes how end users can do this to open orders.

NOTE: The following procedure shows how to revise a submitted order for an asset owned by an account. You can also revise a submitted order for an asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To revise a submitted order

- 1 Navigate to the Account screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Account Summary view tab.
- 4 In the Orders list, drill down on the desired order number of the open order.
The Sales Order form and Line Items list appear, displaying details of the order.
- 5 In the Sales Order form, click Revise.
- 6 In the Line Items list, select the line item you want to modify.

7 To change the configuration of a line item, select the item and click Customize.

A Configurator session launches and displays selection pages. The selection pages display the current configuration of the customer asset adjusted for any open orders.

8 Modify the configuration of the customizable product or service as needed and click Done.

9 In the Sales Order form, click Submit.

The Status changes to Open for the order and any line items that were previously pending.

The integrator is responsible for extending the Submit Order Process workflow to do both of the following:

- Compare the before and after versions of the order.
- Interact with the service fulfillment system to cancel, update, rollback, or accelerate the order line items.

If a user changes the action codes manually in the line item, it changes the effect on the previous order as shown in [Table 37](#).

Table 37. Effects of Changing Action Codes

Original Action	Status	New Action	Effect
- (Dash)	All	- (Dash)	No effect
- (Dash)	All	Update	Updates installed asset
- (Dash)	All	Delete	Deletes installed asset
- (Dash)	All	Add	No effect
Add	Complete	- (Dash)	No effect
Add	Complete	Update	Updates installed asset
Add	Complete	Delete	Deletes installed asset
Add	Complete	Add	No effect
Add	Complete	- (Dash)	No effect
Add	Complete	Update	No effect
Add	Complete	Delete	No effect
Add	Complete	Add	Adds installed asset
Update	All	- (Dash)	No effect
Update	All	Update	Updates installed asset
Update	All	Delete	Deletes installed asset
Update	All	Add	No effect
Delete	Complete	- (Dash)	No effect
Delete	Complete	Update	No effect

Table 37. Effects of Changing Action Codes

Original Action	Status	New Action	Effect
Delete	Complete	Delete	No effect
Delete	Complete	Add	Adds installed asset with the same configuration
Delete	Complete	- (Dash)	No effect
Delete	Complete	Update	Updates installed asset
Delete	Complete	Delete	Deletes installed asset
Delete	Complete	Add	No effect

Creating a Follow-On Order

An order passes the *point of no return* when the company's business policies dictate that a customer can no longer change the order because it would be too expensive. For example, if the service is fully installed and is now being tested, it is at the point of no return.

When an order has reached the point of no return, so it is not possible to create a supplemental order, you can create a follow-on order for a customer, which allows the customer to place a new order for the same service using the original order as a starting point.

To create a follow-on order

- 1 Navigate to the Orders screen.
- 2 In the Orders list, query for the order for which you want to create a follow on order.
- 3 Drill down on the Order # link to display the Order screen, then the Line Items view.
- 4 Select the line item for the service that you want to change and click Modify.
- 5 If the service is customizable, the Configurator view appears. Make the changes to the service and click Done.

Depending on the type of Account (Residential or Business) either the Quote Detail view or the Order Line Items view will be displayed with the follow-on order.

Modifying the Service Profile

With asset-based ordering, employee end users use the Account Summary or Contact Summary view to access the service profile and to work with quotes and orders. End users can also access an account's service profile in the Billing Item and Installed Asset views.

NOTE: There is an Accounts view labeled Service Profile, but it is used primarily in Field Service. It does not display the customer's service profile that is used in asset-based ordering.

There are several ways to modify the service profile of a customer:

- Create a quote for a new item. See [“Creating a Quote Using Asset-Based Ordering” on page 207](#).
- Create a quote that modifies an existing item. See [“Creating a Quote that Modifies an Asset” on page 209](#).
- Create a quote to deactivate an item. See [“Deactivating an Installed Asset” on page 217](#).

If a quote is generated by any of these methods, the service profile will be updated when the quote and subsequent order are fulfilled. This is typically done in one of two ways:

- From an external order management system. For more information on how this is done, see [“Workflow to Apply an Order to the Service Profile” on page 250](#).
- From an external system that maintains service profiles. In this case, Siebel EIM sends a replication of the customer’s profile to the Siebel Business Application. For more information about EIM, see *Siebel Enterprise Integration Manager Administration Guide*.

Preconfigured, an Auto-Asset button can be used to update the service profile from a completed Order. However, when one of the two methods above is implemented, the integrator usually removes the Auto-Asset button. If the Auto-Asset button has not been removed, the end user can use the following procedure.

To modify the service profile using Auto-Asset

- 1 Navigate to the Sales Orders screen, then the List view.
- 2 In the Orders list, drill down on the desired order number of an order that has been submitted.
- 3 In the Line Items list, set the status of the line items to Complete.
- 4 Click Auto-Asset.

NOTE: Auto-Asset must be invoked once for each root level product in the Order.

- 5 Navigate to the Account Summary view for the Service Account associated with the line items.
The completed order line items will be reflected in the service profile.

Deactivating an Installed Asset

With asset-based ordering, employee end users can use the procedure below to create a quote that discontinues an existing customer service.

When you use this procedure, the account type determines whether a quote or order is created. If the account type is *Residential*, quotes are not created and all modifications of the service profile create an order directly. For all other account types, a quote is created.

NOTE: The following procedure shows how to deactivate an installed asset owned by an account. You can also deactivate an installed asset owned by a contact using a similar procedure, by navigating to the Contacts screen, then the Contact Summary view.

To deactivate a installed asset

- 1 Navigate to the Account screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the appropriate account.
- 3 Click the Account Summary view tab.
- 4 In the Installed Assets list or the Billing Items list, select the installed asset you want to deactivate, and click Deactivate.

The Quotes form appears. The Line Items list shows the items that will be deactivated.

- 5 Verify that the installed assets you want to deactivate display an action code of Delete.
- 6 Convert the quote to an order and submit it. For more information, see [“Converting Quotes to Orders Using Asset-Based Ordering” on page 212](#).

Suspending and Resuming Service

When you create a suspend order, you stop service. The customer is still the owner of the service, but no service is being delivered. When you create a resume order, you recommence a service that has been suspended. You can use suspend and resume orders for a number of reasons:

- Customers who are going on vacation may want to suspend their newspaper delivery service while they are away.
- A chain store may have one branch in a remote location that closes for the winter, so it wants to suspend both its phone and internet service to that site for the winter.
- A phone company may have a policy saying that, if customers have not paid their bills for three months and do not respond to calls from collection agents, the phone company suspends their service. The phone company resumes service after the bills are paid.
- Customers may report that they have lost their cell phones, and the phone company suspends service to prevent fraud. When the phones are found, the company resumes the service.

NOTE: The following procedures show how to suspend and resume service for an asset owned by an account. You can also suspend and resume service for an asset owned by a contact using similar procedures, by navigating to the Contacts screen, then the Contact Summary view.

To enter a suspend order

- 1 Navigate to the Accounts screen, then the Accounts List view.
- 2 In the Accounts list, click the name of the account that has the service.
- 3 Click the Account Summary Assets view tab.
- 4 In the Installed Assets list, if necessary, do a query to find the assets to be suspended.
For example, if you want to suspend service to a site, query on the Point of Service field to find all assets for that site.
- 5 In the Installed Assets list, select one or more services with the status of Active.
- 6 From the Installed Assets menu, select Suspend.

Use the following procedure to enter a resume order.

To enter a resume order

- 1 Navigate to the Installed Assets view.
- 2 In the Installed Assets list, select a service that has the status of Suspended.
- 3 From the Installed Assets menu, select Resume.

14 Workflow and Method Reference for Order Management Interface

Some features of the order management interface are based on Siebel workflows. You can modify these workflows to suit your own business model using Siebel Business Process Designer. For more information, see *Siebel Business Process Designer Administration Guide*.

This chapter explains the Siebel workflows used by the order management interface, and the methods called by these workflows. This chapter does not include workflows for asset-based ordering, which are covered in [Chapter 15, “Workflow Reference for Employee Asset-Based Ordering.”](#)

This chapter covers the following topics:

- [“Order Management Interface Workflow Reference” on page 221](#)
- [“Order Management Interface Methods Reference” on page 235](#)

Order Management Interface Workflow Reference

The order management interface uses the following workflows:

- Workflows for creating a quote or order:
 - [“Account - New Order Workflow” on page 222](#)
 - [“Account - New Quote Workflow” on page 222](#)
 - [“Contact - New Order Workflow” on page 223](#)
 - [“Contact - New Quote Workflow” on page 223](#)
 - [“Goto_Quote Workflow” on page 224](#)
 - [“Goto_Order Workflow” on page 224](#)
- Workflows for validating a quote, order, or agreement:
 - [“Verify Header \(Quote\) Workflow” on page 225](#)
 - [“ISS Validation \(Agreement\) Workflow” on page 225](#)
 - [“ISS Validation \(Order\) Workflow” on page 226](#)
 - [“ISS Validation \(Quote\) Workflow” on page 228](#)
- Workflows for approving a quote, order, or agreement:
 - [“ISS Approval \(Quote\) Workflow” on page 229](#)
 - [“ISS Approval \(Order\) Workflow” on page 230](#)
 - [“ISS Approval \(Agreement\) Workflow” on page 231](#)
 - [“ISS Post Approval Workflow \(Quote\) Workflow” on page 231](#)
 - [“ISS Post Approval Workflow \(Order\) Workflow” on page 233](#)
 - [“ISS Post Approval Workflow \(Agreement\) Workflow” on page 234](#)

Account - New Order Workflow

Account - New Order Workflow, shown in [Figure 13](#), creates a new Quote for the current Account. It then navigates to Order Entry - Detail Orders View.

It is triggered from the Accounts screen, Account List applet menu.

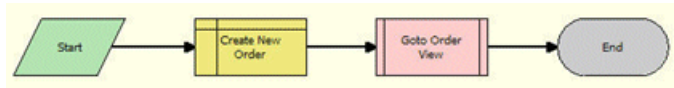


Figure 13. Account - New Order Workflow

Workflow Description. This workflow does the following:

- 1 Create New Order.** Creates an order
- 2 Goto Order View.** Invokes a Sub-process called Goto_Order, which navigates to Order Entry - Detail Orders View

Account - New Quote Workflow

Account - New Quote Workflow, shown in [Figure 14](#), creates a new Quote for the current Account. It then navigates to Quote Item Detail View.

It is triggered from the Accounts screen, Account List applet menu.

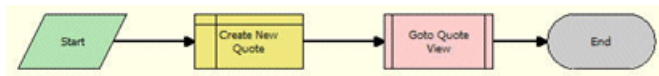


Figure 14. Account - New Quote Workflow

Workflow Description. This workflow does the following:

- 1 Create New Quote.** Creates a quote
- 2 Goto Order View.** Invokes a sub-process called Goto_Quote, which uses Interactive workflow step to navigate to Quote Item Detail View.

Contact - New Order Workflow

Contact - New Order Workflow, shown in [Figure 15](#), creates a new Order for the current Contact. It then navigates to the Order Entry screen, then the Detail Orders View.

It is triggered from the Contacts screen, Contact List applet menu.

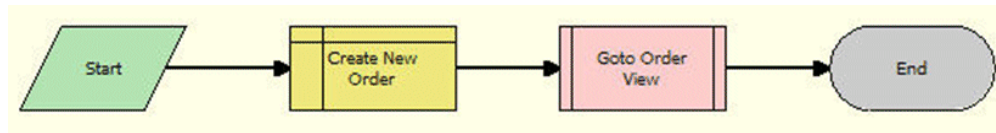


Figure 15. Contact - New Order Workflow

Workflow Description. This workflow does the following:

- 1 **Create New Order.** Creates an order for a contact.
- 2 **Goto Order View.** Invokes a Sub-process called Goto_Order, which navigates to Order Entry - Detail Orders View

Contact - New Quote Workflow

Account - New Quote Workflow, shown in [Figure 16](#), creates a new Quote for the current Account. It then navigates to Quote Item Detail View.

It is triggered from the Contacts Screen, Contact List applet menu.

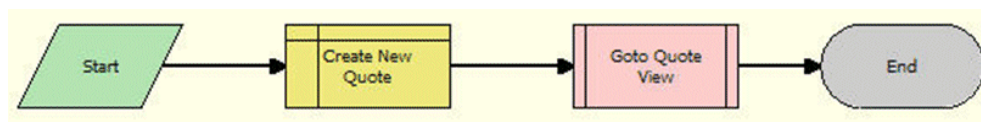


Figure 16. Contact - New Quote Workflow

Workflow Description. This workflow does the following:

- 1 **Create New Quote.** Creates a quote
- 2 **Goto Quote View.** Invokes a sub-process called Goto_Quote, which uses interactive workflow step to navigate to "Quote Item Detail View".

Goto_Quote Workflow

Goto_Quote workflow, shown in [Figure 17](#), navigates to Quote Item Detail View. It is triggered by the Account - New Quote and Contact - New Quote workflows.

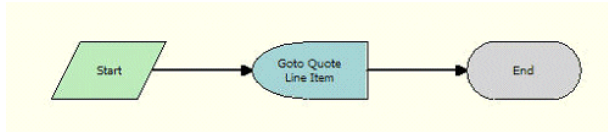


Figure 17. Goto_Quote Workflow

Workflow Description. This workflow does the following:

This sub-process uses an interactive workflow step to navigate to Quote Item Detail View.

Goto_Order Workflow

Goto_Order workflow, shown in [Figure 18](#), navigates to Order Entry - Detail Orders View. It is triggered by the Account - New Order and Contact - New Order workflows.

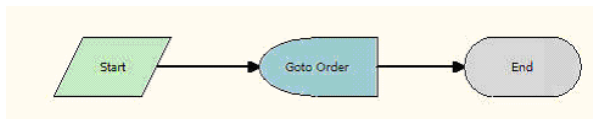


Figure 18. Goto_Order Workflow

Workflow Description. This workflow does the following:

This sub-process uses an interactive workflow step to navigate to Order Entry - Detail Orders View.

Verify Header (Quote) Workflow

Verify Header (Quote) workflow, shown in [Figure 19](#), is used to verify a quote, verify a promotion, and verify line items of a quote. It displays promotion violations, data validation rule violations, and complex product violations.

It is triggered when the user clicks the Verify button in a quote header or selects Verify from the menu of the quote line item applet.

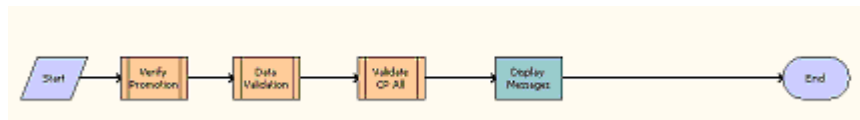


Figure 19. Verify Header (Quote) Workflow

Workflow Description. This workflow does the following:

- 1 Verify Promotion.** Calls the ISS Promotion Verify SubProcess workflow to verify promotion status.
- 2 Data Validation.** Calls the ISS Validation (Quote) workflow to verify Data Validation Rules.
- 3 Validate CP All.** Calls the VORD Validate Complex Product All (Quote) workflow to validate all complex products under the Quote.
- 4 Display Messages.** Displays all messages generated by the earlier steps.

ISS Validation (Agreement) Workflow

ISS Validation (Agreement) workflow, shown in [Figure 20](#), validates the Agreement based on the Rule Set definition for the agreement in Administration - Data Validation view.

It is triggered by the VerifyItem signal, which is invoked by the Agreement screen, Verify applet menu.

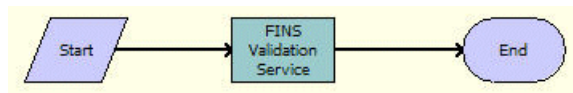


Figure 20. ISS Validation (Agreement) Workflow

Workflow Description. This workflow does the following:

This workflow calls the Validate method of the FINS Validator Business Service. This will validate the Agreement based on the Rule Sets that were defined Administration - Data Validation. For more information, see [“Validate Method” on page 236](#)

Process Properties

Name	Business Object	Data Type	Comments
Error Code	Service Agreement	String	The Error Code that is returned if an error occurs.
Error Message	Service Agreement	String	The Error Message that is returned if an error occurs.
Object Id	Service Agreement	String	The Row ID of the current object.
Process Instance Id	Service Agreement	String	The Row ID of the current workflow process.
Return Code	Service Agreement	String	The Return Code that is defined in the Rule Set.
Return Message	Service Agreement	String	The Return Message that is defined in the Rule Set.
Siebel Operation Object Id	Service Agreement	String	The Row ID of the Siebel Operation Object.
Store Messages	Service Agreement	String	Variable to determine if the validation messages should be stored in the validation tables.
Validation Ruleset Name	Service Agreement	String	The name of the Rule Set that is defined in the Data Validation Administration screen.

ISS Validation (Order) Workflow

ISS Validation (Order) workflow, shown in [Figure 21](#), validates the Order based on the Rule Set definition Administration - Data Validation for orders.

It is triggered by the VerifyItem signal, which is invoked by the Verify applet menu item of the Order Header menu.

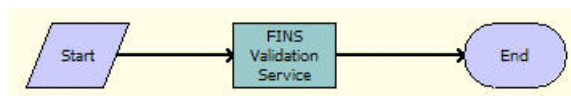


Figure 21. ISS Validation (Order) Workflow

Workflow Description. This workflow does the following:

This workflow calls the Validate method of the FINS Validator Business Service. This will validate the Order based on the Rule Sets that were defined in Administration - Data Validation. For more information, see [“Validate Method” on page 236](#).

Process Properties

Name	Business Object	Data Type	Comments
Error Code	Order Entry	String	The Error Code that is returned if an error occurs.
Error Message	Order Entry	String	The Error Message that is returned if an error occurs.
Object Id	Order Entry	String	The Row ID of the current object.
Process Instance Id	Order Entry	String	The Row ID of the current workflow process.
Return Code	Order Entry	String	The Return Code that is defined in the Rule Set.
Return Message	Order Entry	String	The Return Message that is defined in the Rule Set.
Siebel Operation Object Id	Order Entry	String	The Row ID of the Siebel Operation Object.
Store Messages	Order Entry	String	Variable to determine if the validation messages should be stored in the validation tables.
Validation Ruleset Name	Order Entry	String	The name of the Rule Set that is defined in the Data Validation Administration screen.

ISS Validation (Quote) Workflow

ISS Validation (Quote) workflow, shown in [Figure 22](#), validates the Quote based on the Rule Set definition for quotes in the Administration - Data Validation screen.

It is triggered from VerifyItem signal which is invoked by the Verify Applet Menu item on the Quote Header.

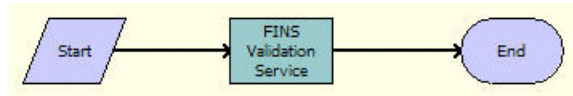


Figure 22. ISS Validation (Quote) Workflow

Workflow Description. This workflow does the following:

This workflow calls the Validate method of the FINS Validator Business Service. This will validate the Quote based on the Rule Sets that were defined in the Administration - Data Validation screen. For more information, see [“Validate Method” on page 236](#)

Process Properties

Name	Business Object	Data Type	Comments
Error Code	Quote	String	The Error Code that is returned if an error occurs.
Error Message	Quote	String	The Error Message that is returned if an error occurs.
Object Id	Quote	String	The Row ID of the current object.
Process Instance Id	Quote	String	The Row ID of the current workflow process.
Return Code	Quote	String	The Return Code that is defined in the Rule Set.
Return Message	Quote	String	The Return Message that is defined in the Rule Set.
Siebel Operation Object Id	Quote	String	The Row ID of the Siebel Operation Object.
Store Messages	Quote	String	Variable to determine if the validation messages should be stored in the validation tables.
Validation Ruleset Name	Quote	String	The name of the Rule Set that is defined in the Data Validation Administration screen.

ISS Approval (Quote) Workflow

ISS Approval (Quote) workflow, shown in [Figure 23](#), validates approval rules and creates approval items if necessary.

It is triggered when the user selects the Generate Approvals menu item on the Quote Header applet menu. This menu item raises the ApprovalItem Signal, which calls this workflow.

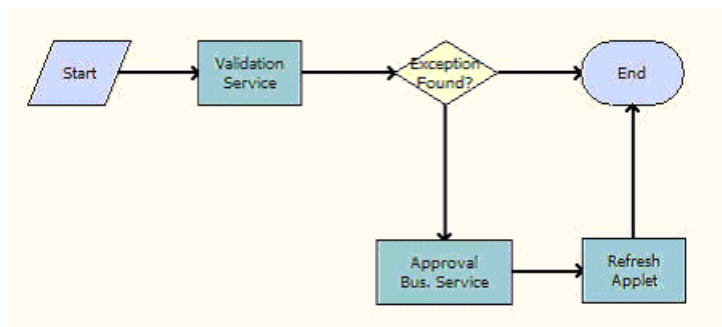


Figure 23. ISS Approval (Quote) Workflow

Workflow Description. This workflow does the following:

- 1 Validation Service.** Calls the Validate method of the Data Validation Manager Business Service, which validates the Quote based on the Rule Sets that were defined. For more information, see [“Validate Method” on page 236](#).
- 2 Exception Found.** If the validation service returns a null, the workflow ends.
- 3 Approval Business Service.** If it returns a non-null value, workflow invokes CreateNewApprovalTasks method, which creates a new approval task for the quote. For more information, see [“CreateNewApprovalTasks Method” on page 237](#).
- 4 Refresh Applet.** Calls the Refresh Business Component method of the SIS OM PMT Service Business Service, which refreshes the Quote, so the approval items appear in the approvals view.

ISS Approval (Order) Workflow

ISS Approval (Order) workflow, shown in [Figure 24](#), validates approval rules and creates approval items if necessary.

It is triggered when the user selects the Generate Approvals menu item on the Order Header applet menu. This menu item raises the ApprovalItem Signal, which calls this workflow.

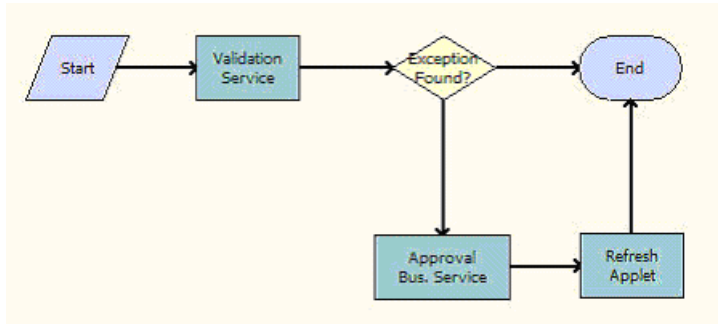


Figure 24. ISS Approval (Order) Workflow

Workflow Description. This workflow does the following:

- 1 Validate.** Calls the Validate method of the Data Validation Manager Business Service, which validates the Order based on the Rule Sets that were defined. For more information, see [“Validate Method” on page 236](#).
- 2 Exception Found.** If the validation service returns a null, the workflow ends.
- 3 Approval Bus Service.** If it returns a non-null value, the workflow calls the CreateNewApprovalTasks method of the ISS Approval Bus Service, which creates a new approval task for the Order. For more information, see [“CreateNewApprovalTasks Method” on page 237](#).
- 4 Refresh Applet.** Calls the Refresh Business Component method of the SIS OM PMT Service Business Service, which refreshes the Order, so the approval items appear in the approvals view.

ISS Approval (Agreement) Workflow

ISS Approval (Agreement) workflow, shown in [Figure 25](#), validates approval rules and create approval items if necessary.

It is triggered when the user selects the Generate Approvals menu item on the Agreement Header applet menu. This menu item raises the ApprovalItem Signal, which calls this workflow.

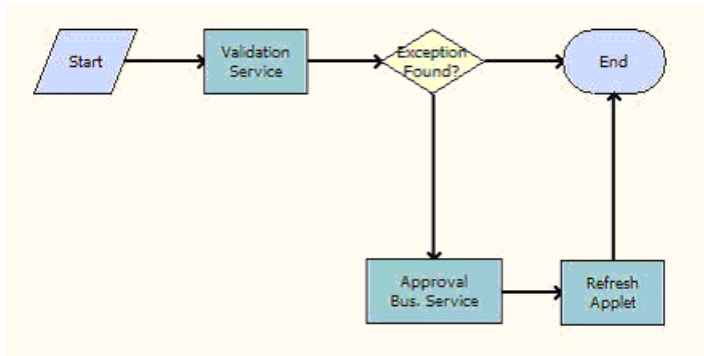


Figure 25. ISS Approval (Agreement) Workflow

Workflow Description. This workflow does the following:

Validation Service. Calls the Validate method of the Data Validation Manager Business Service. For more information, see [“Validate Method” on page 236](#).

- 1 Exception Found.** If the validation service returns a null, the workflow ends.
- 2 Approval Bus Service.** If it returns a non-null value, the workflow calls the CreateNewApprovalTasks method of the ISS Approval Bus Service. For more information, see [“CreateNewApprovalTasks Method” on page 237](#).
- 3 Refresh Applet.** Calls the Refresh Business Component method of the SIS OM PMT Service Business Service, which refreshes the Agreement, so the approval items appear in the Approvals view.

ISS Post Approval Workflow (Quote) Workflow

ISS Post Approval Workflow (Quote) workflow, shown in [Figure 26](#), checks whether any additional approvals are needed.

It is triggered when a user approves an Quote to see if additional approvals are needed.

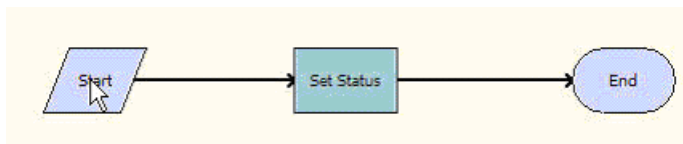


Figure 26. ISS Post Approval Workflow (Quote) Workflow

Workflow Description. This workflow does the following:

Calls the SetApprovalDecision method. This will set the status of the current approval item and check to see if additional approval is needed.

Process Properties

Name	Business Object	Data Type	Comments
ActionLIC	Quote	String	The Language Independent Code for the Action Field
Approval Level Name	Quote	String	The name of the Approval Level that is defined in the Approval Administration screen.
Error Code	Quote	String	The Error Code that is returned if an error occurs.
Error Message	Quote	String	The Error Message that is returned if an error occurs.
InboxItemId	Quote	String	The Row ID of the current Universal Inbox Item.
InboxTypeName	Quote	String	The Universal Inbox Type.
Object Id	Quote	String	Obsolete.
ObjectId	Quote	String	The Row ID of the current object.
OwnerInfold	Quote	String	The Row ID of the approver.
Process Instance Id	Quote	String	The Row ID of the current workflow process.
Returned Status	Quote	String	The Status of the Approval Item.
SendEmail	Quote	String	Variable to determine if email is sent to the person who needs to approve the current item.
SeqNum	Quote	String	The Sequence Number for the current approval level.
Siebel Operation Object Id	Quote	String	The Row ID of the Siebel Operation Object.
StageId	Quote	String	The Row ID of the current Approval Stage.

ISS Post Approval Workflow (Order) Workflow

ISS Post Approval Workflow (Order) workflow, shown in [Figure 27](#), checks whether any additional approvals are needed.

It is triggered when a user approves an Order to see if additional approvals are needed.

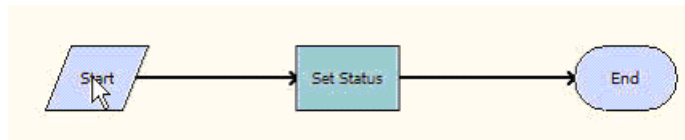


Figure 27. ISS Post Approval Workflow (Order) Workflow

Workflow Description. This workflow does the following:

Calls the SetApprovalDecision method of the ISS Approval Bus Service Business Service. This will set the status of the current approval item and check to see if additional approval is needed.

Process Properties

Name	Business Object	Data Type	Comments
ActionLIC	Order Entry	String	The Language Independent Code for the Action Field
Approval Level Name	Order Entry	String	The name of the Approval Level that is defined in the Approval Administration screen.
Error Code	Order Entry	String	The Error Code that is returned if an error occurs.
Error Message	Order Entry	String	The Error Message that is returned if an error occurs.
InboxItemId	Order Entry	String	The Row ID of the current Universal Inbox Item.
InboxTypeName	Order Entry	String	The Universal Inbox Type.
Object Id	Order Entry	String	Obsolete.
ObjectId	Order Entry	String	The Row ID of the current object.
OwnerInfold	Order Entry	String	The Row ID of the approver.
Process Instance Id	Order Entry	String	The Row ID of the current workflow process.
Returned Status	Order Entry	String	The Status of the Approval Item.

Name	Business Object	Data Type	Comments
SendEmail	Order Entry	String	Variable to determine if email is sent to the person who needs to approve the current item.
SeqNum	Order Entry	String	The Sequence Number for the current approval level.
Siebel Operation Object Id	Order Entry	String	The Row ID of the Siebel Operation Object.
StageId	Order Entry	String	The Row ID of the current Approval Stage.

ISS Post Approval Workflow (Agreement) Workflow

ISS Post Approval Workflow (Agreement) workflow, shown in [Figure 28](#), checks whether any additional approvals are needed.

It is triggered when a user approves an Agreement to see if additional approvals are needed.

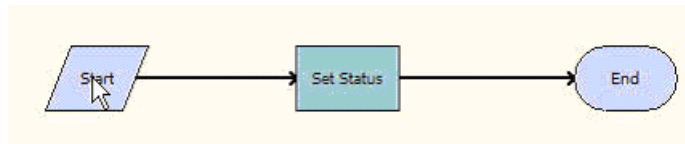


Figure 28. ISS Post Approval Workflow (Agreement) Workflow

Workflow Description. This workflow does the following:

Calls the SetApprovalDecision method of the ISS Approval Bus Service Business Service. This will set the status of the current approval item and check to see if additional approval is needed.

Process Properties

Name	Business Object	Data Type	Comments
ActionLIC	Service Agreement	String	The Language Independent Code for the Action Field
Approval Level Name	Service Agreement	String	The name of the Approval Level that is defined in the Approval Administration screen.
Error Code	Service Agreement	String	The Error Code that is returned if an error occurs.

Name	Business Object	Data Type	Comments
Error Message	Service Agreement	String	The Error Message that is returned if an error occurs.
InboxItemId	Service Agreement	String	The Row ID of the current Universal Inbox Item.
InboxTypeName	Service Agreement	String	The Universal Inbox Type.
Object Id	Service Agreement	String	Obsolete.
ObjectId	Service Agreement	String	The Row ID of the current object.
OwnerInfolId	Service Agreement	String	The Row ID of the approver.
Process Instance Id	Service Agreement	String	The Row ID of the current workflow process.
Returned Status	Service Agreement	String	The Status of the Approval Item.
SendEmail	Service Agreement	String	Variable to determine if email is sent to the person who needs to approve the current item.
SeqNum	Service Agreement	String	The Sequence Number for the current approval level.
Siebel Operation Object Id	Service Agreement	String	The Row ID of the Siebel Operation Object.
StageId	Service Agreement	String	The Row ID of the current Approval Stage.

Order Management Interface Methods Reference

The following methods are called by the order management interface workflows:

- [“Validate Method” on page 236](#)
- [“CreateNewApprovalTasks Method” on page 237](#)
- [“SetApprovalDecision Method” on page 236](#)
- [“RefreshBusinessComponent Method” on page 238](#)

Validate Method

This method validates a quote, order, or agreement based on the Rule Sets that were defined Administration - Data Validation.

Syntax

```
DOCHILD (pService, InvokeMethod (SStext("Validate"), inputArgs, outputArgs));
```

(triggered from workflow)

Input Arguments

Input Argument	Type	Property Name	Comments
Rule Set Name	Process Property	Validation Ruleset Name	None
Store Messages	Process Property	Store Messages	This flag determines whether the validation messages are stored in the table.

Output Argument	Type	Property Name	Comments
Return Code	Output Argument	Return Code	Return the error code. Based on the, the workflow determines whether approval is needed.
Return Message	Output Argument	Return Message	Returns the error message from the validation engine

SetApprovalDecision Method

This method sets the status of the current approval item and checks to see if additional approval is needed. This method is part of the ISS Approval Bus Service Business Service.

Syntax

```
DOCHILD (pService, InvokeMethod (SStext("SetApprovalDecision"), inputArgs, outputArgs));
```

(triggered from workflow)

Arguments

Input Argument	Type	Property Name
ActionLIC	Process Property	ActionLIC
InboxItemId	Process Property	InboxItemId
InboxTypeName	Process Property	InboxTypeName
ObjectId	Process Property	ObjectId
OwnerInfold	Process Property	OwnerInfold
SendEmail	Process Property	SendEmail
SeqNum	Process Property	SeqNum
StageId	Process Property	StageId

CreateNewApprovalTasks Method

This method creates a new approval task for a quote, order, or agreement. This method is part of ISS Approval Business Service.

Syntax

DOCHILD (pService, InvokeMethod (SStext("CreateNewApprovalTasks"), inputArgs, outputArgs));

(triggered from workflow)

Arguments

Input Argument	Type	Property Name
Approval Item ID	Process Property	Object Id
Approval Level Name	Process Property	Approval Level Name
Inbox Type	Process Property	Inbox Type
Line Item #	Process Property	Line Item #
Line Item Name	Process Property	Line Item Name
Requesting Buscomp	Process Property	Requesting Buscomp
Return Message	Process Property	Return Message
SendEmail	Process Property	SendEmail

RefreshBusinessComponent Method

This method refreshes the display of a quote, order, or agreement. This method is part of the SIS OM PMT Service Business Service.

Syntax

```
DOCHILD (pService, InvokeMethod (SStext("RefreshBusinessComponent"), inputArgs, outputArgs));
```

(triggered from workflow)

Arguments

Input Argument	Type	Value
Business Component Name	Literal	The name of the business component (such as Approval History - Quote, Approval History - Order, or Approval History - Agreement)
Business Object Name	Literal	The name of the business component (such as Quote, Order Entry (Sales), or Service Agreement).

15 Workflow Reference for Employee Asset-Based Ordering

This chapter explains the Siebel workflows used for employee asset-based ordering.

In this chapter, the workflows are grouped in sections that correspond to the business processes that they automate. Each section describes a workflow process and may describe one or more subprocesses that are called by the main process. These are grouped together to show how the process and its subprocesses are related to each other.

This chapter includes the following topics:

- [“About Workflows for Employee Asset-Based Ordering” on page 240](#)
- [“Workflow to Ungroup Quote Line Items” on page 240](#)
- [“Workflow to Ungroup Order Line Items” on page 241](#)
- [“Workflow to Edit Quote Line Items” on page 242](#)
- [“Workflow to Convert a Quote to an Order” on page 244](#)
- [“Workflow to Edit Order Line Items” on page 247](#)
- [“Workflow to Submit an Order” on page 249](#)
- [“Workflow to Apply an Order to the Service Profile” on page 250](#)
- [“Workflows to Modify the Service Profile” on page 252](#)
- [“Workflows to Redisplay the Service Profile” on page 254](#)
- [“Workflows to Modify a Service Item” on page 255](#)
- [“Workflows to Disconnect a Service Item” on page 261](#)
- [“Workflows to Suspend or Resume Service Items” on page 264](#)
- [“Workflows for Contact-Based Asset-Based Ordering” on page 268](#)
- [“Workflows for Quotes and Orders Assets Catalog Views” on page 268](#)
- [“Workflows That Support the Automatic Configuration of Customizable Products” on page 269](#)

About Workflows for Employee Asset-Based Ordering

Workflows are a central feature of asset-based ordering. They automate the business processes associated with managing accounts, quotes, orders, and assets.

You can modify these workflows to suit your own business model using Siebel Business Process Designer. For more information, see *Siebel Business Process Designer Administration Guide*.

Many of these processes and subprocesses use business service methods that are specific to asset-based ordering. The descriptions of workflows include tables listing the names of any methods they call. For information about these methods, see *Siebel Order Management Infrastructure Guide*.

NOTE: Some workflows in the following sections may not be relevant to your application services.

Workflow to Ungroup Quote Line Items

This workflow ungroups the line items in a quote so that all items have a quantity of 1. It consists of the workflow process:

- “SIS OM Ungroup Quote”

SIS OM Ungroup Quote

This workflow decomposes each line item with a quantity greater than 1 into multiple line items, each with a quantity of 1. It ungroups the root product and every child product. Subsequently, a user can specify different attributes for each line item. Ungroup can act only on the root product level; it cannot ungroup individual child products without ungrouping the root and all its children. This workflow is shown in [Figure 29](#).

A user initiates this workflow by clicking the Ungroup button in the Order Entry - Line Items view (Sales).

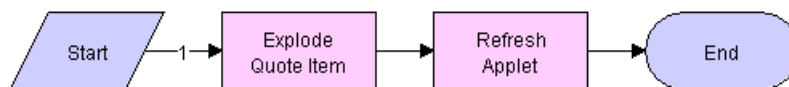


Figure 29. SIS OM Ungroup Quote Business Process

Workflow Description. This workflow does the following:

- 1 Ungroups (explodes) the quote line items.

If the quantity of any line item is greater than 1, then the workflow creates multiple instances of the line item, each with a quantity of 1.

NOTE: Items with the Auto Explode flag set to N are not exploded.

- 2 Refreshes the Quote Item list of the Order Entry - Line Items view (Sales).

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Explode Quote Line Item	Ungroup
Refresh Applet	Refresh Business Component

Workflow to Ungroup Order Line Items

This workflow ungroups the line items in a quote so that all items have a quantity of 1. It consists of the workflow process:

- "SIS OM Ungroup Order"

SIS OM Ungroup Order

This workflow decomposes each line item with a quantity greater than 1 into multiple line items, each with a quantity of 1. It ungroups the root product and every child product. Subsequently, a user can specify different attributes for each line item. Ungroup can act only on the root product level; it cannot ungroup individual child products without ungrouping the root and all its children. This workflow is shown in [Figure 30](#).

A user initiates this workflow by clicking the Ungroup button in the Quote Detail view.

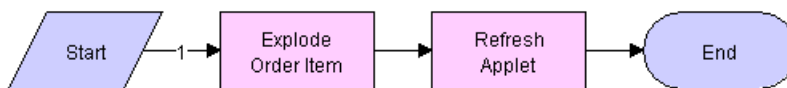


Figure 30. SIS OM Ungroup Order Business Process

Workflow Description. This workflow does the following:

- 1 Ungroups (explodes) the order line items.

If the quantity of any line item is greater than 1, then the workflow creates multiple instances of the line item, each with a quantity of 1.

NOTE: Items with the Auto Explode flag set to N are not exploded.

- 2 Refreshes the Order Entry - Line Item view's Order Item list.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Explode Order Line Item	Ungroup
Refresh Applet	Refresh Business Component

Workflow to Edit Quote Line Items

This workflow allows a user to edit the line items of quotes that result from creating or modifying service items. It consists of the workflow process:

- "SIS OM Edit Delta Quote Line Item"

SIS OM Edit Delta Quote Line Item

This workflow applies active and unprocessed orders to the asset associated with the selected line item and displays the asset in the Product Configurator view. The user makes changes to define the newly requested state and clicks the Done button. The workflow writes the delta of the current and requested states of the asset to the current quote as 1 or more line items. This workflow is shown in Figure 31.

A user initiates this workflow by clicking Customize in the Quote Detail view.

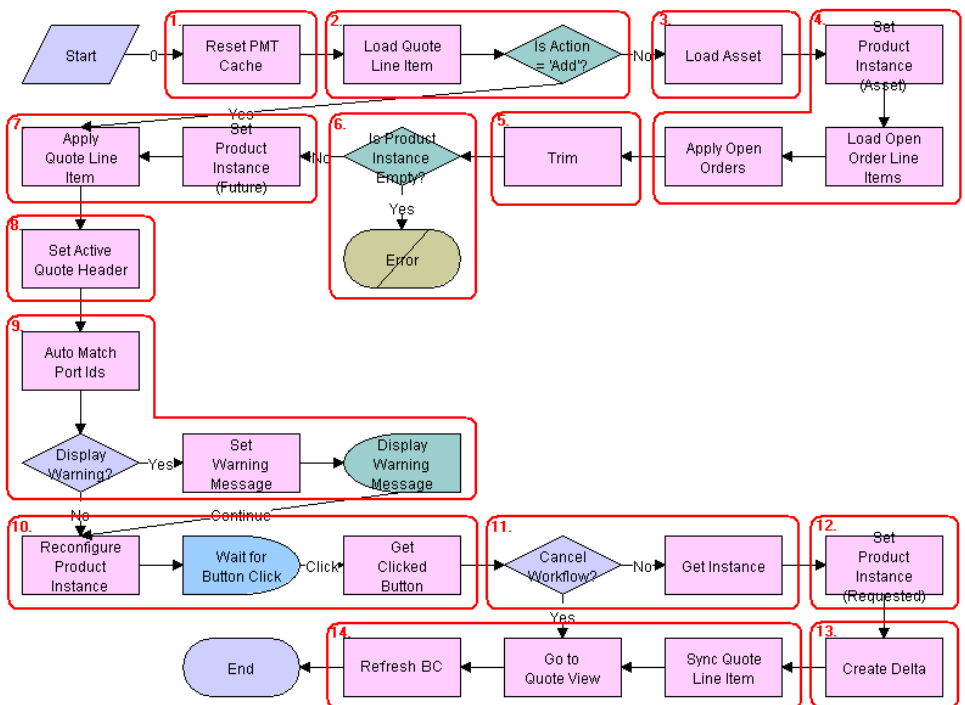


Figure 31. SIS OM Edit Delta Quote Line Item Workflow

Workflow Description. This workflow does the following:

- 1 Clears business service cache of existing product instances.
- 2 Checks the action code of the top-level component of the order line item. If the action code is Add, then goes to Step 7.
- 3 If the action code is not Add, reads the asset associated with the selected quote line item from the database. Components with a status of Inactive are excluded.
- 4 Retrieves all prior active and unprocessed orders that relate to the asset and applies them to generate the requested future state of the asset.
- 5 Removes all asset components that do not have the 'Track As Asset' flag set.
- 6 If one of the active and unprocessed orders disconnects the top-level component, or there are asset components with the 'Track As Asset' flag set, the resulting asset is empty. The workflow displays the following error message: A request has already been made to disconnect this service item. The workflow stops.
- 7 Applies the current quote line item to the asset.
- 8 Stores the quote header so that line items can be added to it.
- 9 Self-heals the asset such that the asset structure matches the product definition. If any changes are made to the asset, a warning message appears.
- 10 Displays the currently requested state of the asset in the Product Configurator view. The user makes the required changes and clicks the Done or Cancel button.
- 11 If the user clicks the Cancel button, the workflow is terminated. If the user clicks the Done button, the newly requested state is retrieved from the Configurator.
- 12 If the action code of the root item is not Add, caches the previously requested state of the asset to be used as an input to Delta.
- 13 Generates the delta of the following as 1 or more quote line items:
 - The requested state of the asset before the current order line item was applied.
 - The state of the asset after the user has reconfigured it.
- 14 Writes the quote line item to the database and refreshes the view.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance (Asset)	Set Product Instance
Load Open Order Line Items	Find Orders
Apply Open Orders	Apply
Trim	Trim
Set Product Instance (Future)	Set Product Instance
Apply Changes Quote Line Item	Apply

Workflow Step	Business Service Method Called
Set Active Quote Header	Set Output Header
Auto Match Port Ids	AutoMatch
Reconfigure Product Instance	Reconfigure Product Instance
Get Clicked Button	Get Configure Button Click Information
Get Instance	Get Product Instance
Set Product Instance (Requested)	Set Product Instance
Create Delta	Delta
Sync Quote Line Item	Synchronize
Go To Quote View	GotoView

Workflow to Convert a Quote to an Order

This workflow allows a user to convert a sales quote to a sales order. It consists of the workflow processes:

- "SIS OM Quote To Order PMT Version"
- "CUT Quote To Order PMT Enhancement"
 - "CUT Quote To Order PMT Enhancement - Sub-process"

SIS OM Quote To Order PMT Version

This workflow creates an order that is associated with the current quote. It copies the line items from the quote to the order and sets the quote's status to Order Placed. This workflow is shown in Figure 32.

A user initiates this workflow by choosing the Sales Order button or menu option in the Quote Orders view.

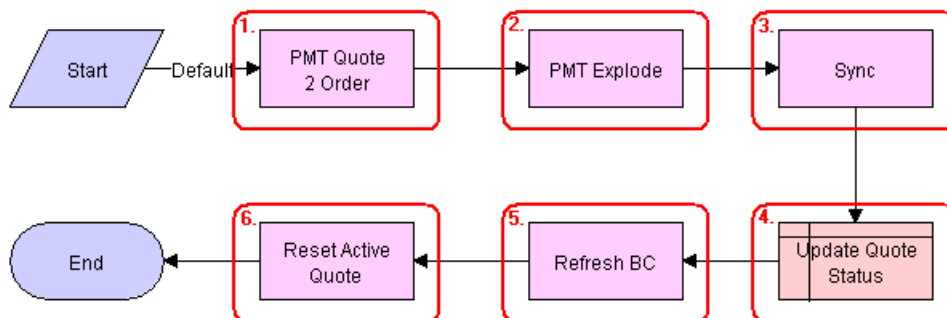


Figure 32. SIS OM Quote To Order Workflow PMT Version

Workflow Description. This workflow does the following:

- 1 Converts a quote to an order. The new order has all the line items and attributes of the quote.
- 2 Explodes line items with a quantity greater than 1 into multiple copies of the line item, each with quantity 1.
- 3 Writes the order to the database.
- 4 Set the status of the quote to Order Placed.
- 5 Refreshes the Quote Orders View.
- 6 Resets the Active Quote so that the current quote is no longer the active quote.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
PMT Quote 2 Order	Convert Product Instance
PMT Explode	Explode
Sync	Synchronize
Refresh BC	Refresh Business Component
Reset Active Quote	Set Profile Attribute

CUT Quote To Order PMT Enhancement

This workflow creates an order that is associated with the current quote. It copies the line items from the quote to the order and sets the quote's status to Order Placed. It then displays the new order in the Order Entry - Line Items view. This workflow is shown in [Figure 33](#).

A user initiates this workflow by clicking the Auto Order button in the Quote Detail view.

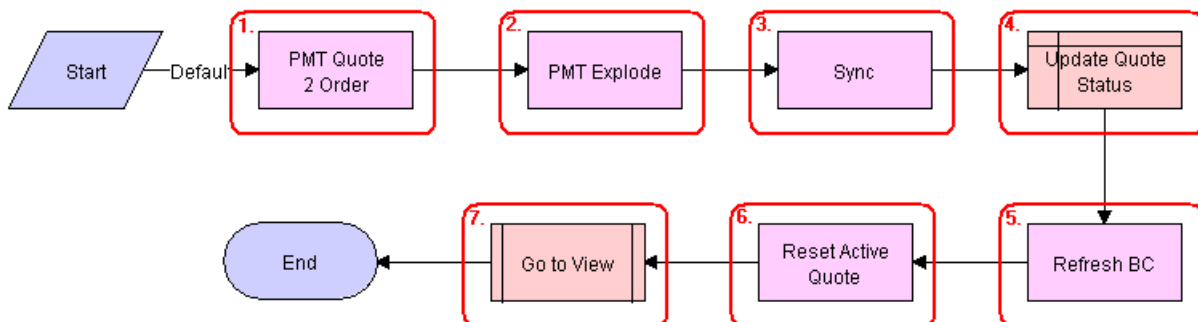


Figure 33. CUT Quote To Order PMT Enhancement

Workflow Description. This workflow does the following:

- 1 Converts a quote to an order. The new order has all the line items and attributes of the quote.
- 2 Explodes line items with a quantity greater than 1 into multiple copies of the line item, each with quantity 1.
- 3 Writes the order to the database.
- 4 Set the status of the quote to Order Placed.
- 5 Refreshes the Quote Orders business component.
- 6 Resets the Active Quote such that the current quote is no longer the active quote.
- 7 Displays the Order Entry - Line Items view.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
PMT Quote 2 Order	Convert Product Instance
PMT Explode	Explode
Sync	Synchronize
Refresh BC	Refresh Business Component
Reset Active Quote	Set Profile Attribute

CUT Quote To Order PMT Enhancement - Sub-process

This workflow displays the Order Entry - Line Items view.

The CUT Quote To Order PMT Enhancement workflow initiates this workflow. The workflow is shown in [Figure 34](#).

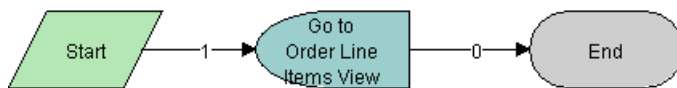


Figure 34. CUT Quote To Order PMT Enhancement - Sub-process

Workflow to Edit Order Line Items

This workflow allows a user to edit order line items. It consists of the workflow process:

- "SIS OM Edit Service Order Line Item"

SIS OM Edit Service Order Line Item

This workflow applies active and unprocessed orders to the asset associated with the selected line item and displays the asset in the Product Configurator view. The user makes changes to define the newly requested state and clicks the Done button. The workflow then writes the delta of the current and requested states of the asset to the current order as 1 or more line items. This workflow is shown in Figure 35.

A user initiates this workflow by clicking the Customize button in the Order Detail view.

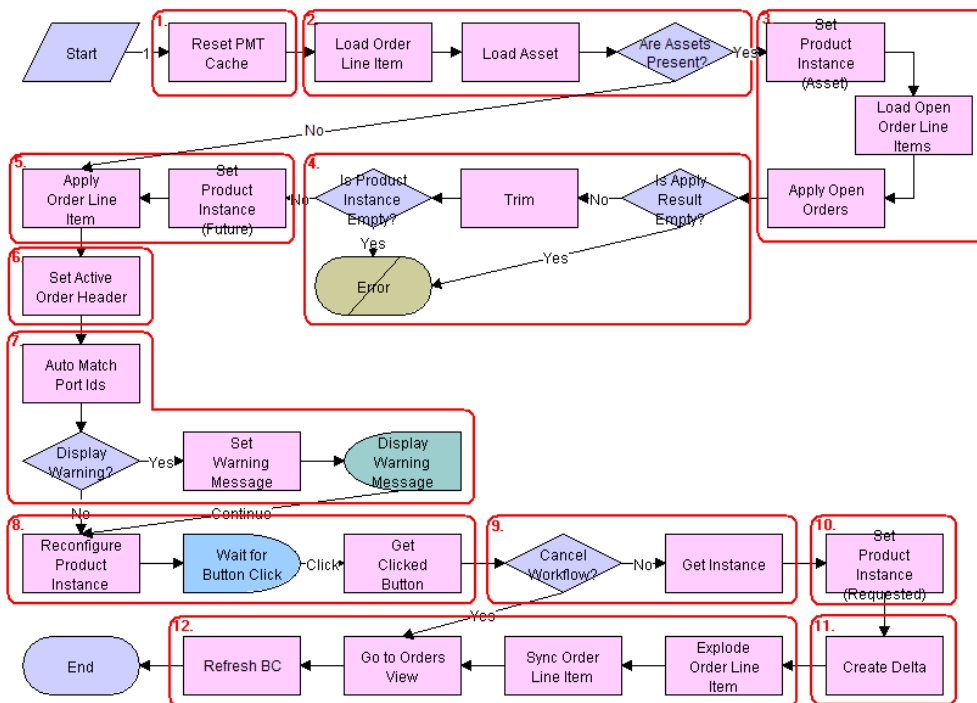


Figure 35. SIS OM Edit Service Order Line Item Workflow

Workflow Description. This workflow does the following:

- 1 Clears the business service cache of existing product instances.
- 2 Loads the asset associated with the current order line item, if it exists. Checks whether the asset has been successfully loaded. If not, goes to Step 5.

- 3 Retrieves all prior active and unprocessed orders related to the asset and applies them to generate the requested future state of the asset.
- 4 Removes the asset components that do not have the 'Track As Asset' flag set. If none of the components has the 'Track As Asset' flag set or one of the active and unprocessed orders disconnects the top-level component, the resulting asset is empty. The workflow displays the following error message: A request has already been made to disconnect this service item. The workflow stops.
- 5 Applies the current order line item to the asset.
- 6 Stores the order header so that line items can be added to it.
- 7 Self-heals the asset such that the asset structure matches the product definition. If any changes are made to the asset, as warning message is displayed.
- 8 Displays the currently requested state of the asset in the Product Configurator view. The user makes the required changes and clicks the Done or Cancel button.
- 9 If the user clicks the Cancel button the workflow is terminated. If the user clicks the Done button, the newly requested state is retrieved from the Configurator.
- 10 Caches the newly requested state of the asset to be used as an input to Delta.
- 11 Generates the delta of the following as one or more order line items:
 - The requested state of the asset before the current order line item was applied.
 - The state of the asset after the user has reconfigured it.
- 12 Explodes (ungroups) any order line item that has a quantity of more than 1 into multiple line items, each with a quantity of 1. Writes the order line item to the database and refreshes the view.

NOTE: This step does not control the quantity of the line items, but only works with the quantity it has been given. The user specifies order line item quantities in Configurator.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance (Asset)	Set Product Instance
Load Open Order Line Items	Find Orders
Apply Open Orders	Apply
Trim	Trim
Set Product Instance (Future)	Set Product Instance
Apply Order Line Item	Apply
Set Active Order Header	Set Output Header
Auto Match Port Ids	AutoMatch

Workflow Step	Business Service Method Called
Reconfigure Product Instance	Reconfigure Product Instance
Get Clicked Button	Get Configure Button Click Information
Get Instance	Get Product Instance
Set Product Instance (Requested)	Set Product Instance
Create Delta	Delta
Explode Order Line Items	Explode
Sync Order Line Items	Synchronize
Go to Orders View	GotoView

Workflow to Submit an Order

This workflow allows a user to submit an order, which signals the provisioning system that the order is ready to be provisioned. It consists of the workflow process:

- "SIS OM Submit Order Process"

SIS OM Submit Order Process

This workflow checks that account information exists. It sets the status of the order and the line items to Open. Because only orders that do not have a status of Open can be submitted, this prevents the order from being submitted again. This workflow is shown in [Figure 36](#).

A user initiates this workflow by clicking the Submit button on the order header form in the Order Entry views. The Submit button is hard coded to call this workflow.

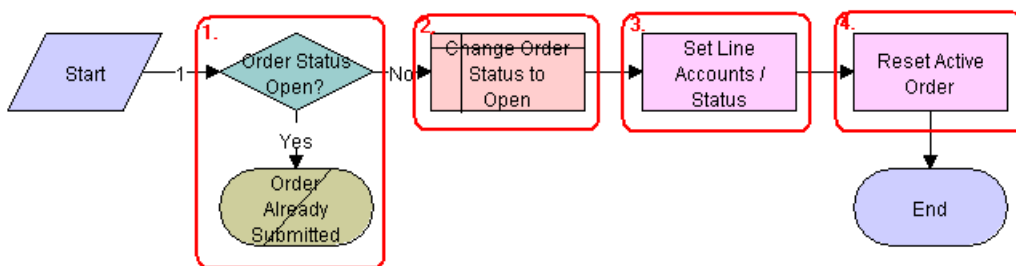


Figure 36. SIS OM Submit Order Process Workflow

Workflow Description. This workflow does the following:

- 1 Checks that the order status is not Open.
- 2 If the order has a status of Open, it cannot be submitted, because it has already been submitted.

- 3 Sets the status of the order to Open.
- 4 Sets the status of each Pending line item to Open.
- 5 Resets the Active Order such that the current order is no longer the active order.

Order Process Workflows Retained for Backward Compatibility

The following workflows were retained for backward compatibility.

SIS OM Auto Select Order Billing and Service Accounts - SIA

This workflow used to be called by an earlier version of “[SIS OM Submit Order Process.](#)” It is now obsolete, but it has been retained for backward compatibility.

SIS OM Auto Select Order Billing and Service Accounts

This workflow used to be called by an earlier version of “[SIS OM Submit Order Process.](#)” It is now obsolete, but it has been retained for backward compatibility.

Workflow to Apply an Order to the Service Profile

This workflow applies a completed order line item to the current account’s service profile. It consists of the workflow process:

- “[SIS OM Apply Completed Service Order Line Item to Service Profile](#)”

SIS OM Apply Completed Service Order Line Item to Service Profile

This workflow creates assets from completed order line items or modifies a current asset. It therefore maintains the account’s service profile, which consists of its associated assets. If there are multiple accounts in an account hierarchy, service items are applied to the service account. This workflow is shown in [Figure 37 on page 251](#).

NOTE: You must develop an order synchronization workflow that updates the status of order line items in your Siebel Business Application when your company’s external order management system completes all or part of an order. After it updates all the order items, the order synchronization workflow must call this workflow to apply the completed changes to the customer’s service profile, which is stored as a series of assets. You can disable this workflow if an external system maintains service profiles.

By default, a user initiates this workflow by clicking the Auto-Asset button in the Order Entry - Order Line Items view.

NOTE: The Auto-Asset button is designed for testing and demonstration purposes, not for actual end use. It is recommended that you configure your Siebel Business Application to call this workflow as a subprocess of the order synchronization workflow mentioned previously.

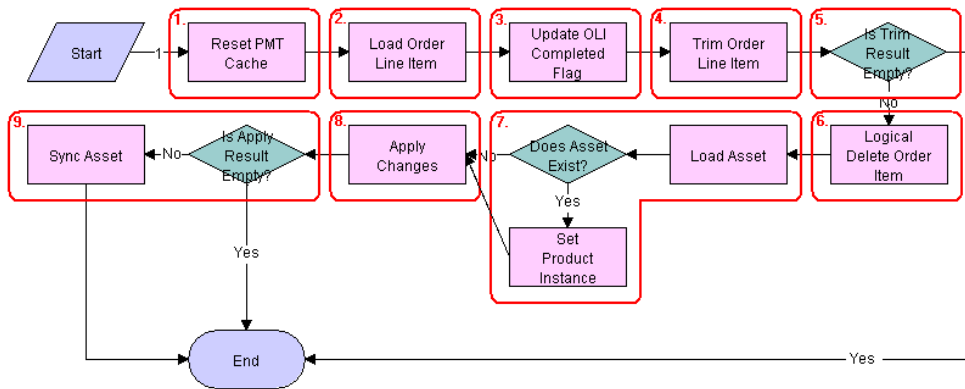


Figure 37. SIS OM Apply Completed Service Order Line Item to Service Profile Workflow

Workflow Description. This workflow does the following:

- 1 Clears business service cache of existing product instances.
- 2 Loads the selected order line item from the database.
- 3 Updates the Order Item Processed flag.

The workflow updates the Order Item Processed flag of the topmost order line item. The workflow sets this flag to Y if all line items have a status of Complete, Failed, or -. Other workflows use this flag to determine whether a line item remains Open and should be applied to the current service profile to generate a requested future state.

- 4 Applies the Trim method.

Trim eliminates any incomplete or failed changes from the order line item. It eliminates line items whose products are not tracked as assets, line items whose status is not Complete, and line items whose action code is Existing. This causes the service profile to reflect the true state of the assets.

- 5 Checks whether line items exist.

If Trim has eliminated all line items, the workflow stops. Otherwise, the workflow continues.

- 6 Converts Delete actions into Modified actions.

The Logical Delete step converts Delete actions into Modified actions and sets the status to Inactive. This step supports the maintenance of a history of disconnected services.

7 Loads the service profile from the database.

If the order line item is a change to an existing item, the workflow loads the corresponding service profile, or asset, from the database.

8 Applies the order line item to the asset.

If the asset does not already exist, the workflow creates a new asset.

9 Checks whether the asset is empty.

If, as a result of applying the changes, the asset is empty, the workflow stops. Otherwise, the workflow writes the asset to the database.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Update OLI Completed Flag	Update Order Line Item Completed Flag
Trim Order Line Item	Trim
Logical Delete Order Line Item	Logical Delete
Apply Changes	Apply
Set Product Instance	Set Product Instance
Sync Asset	Synchronize

Workflows to Modify the Service Profile

This group of workflows allows a user to modify a service profile by requesting new service items. It consists of the workflow processes:

- [“SIS OM New Products & Services Process”](#)
- [“SIS OM New Products & Services Process - VORD”](#)

SIS OM New Products & Services Process

This workflow displays the active document, if there is one, or a newly created document in the Quote Detail or Order Entry - Line Items view. The user can then add line items, add or delete an asset, or change the attributes of the asset. This workflow is shown in [Figure 38](#).

A user initiates this workflow by clicking the New button in the Account screen's Service Items view, or Account Summary view. This workflow is also initiated as a subprocess of the SIS OM New Products & Services Process - VORD.

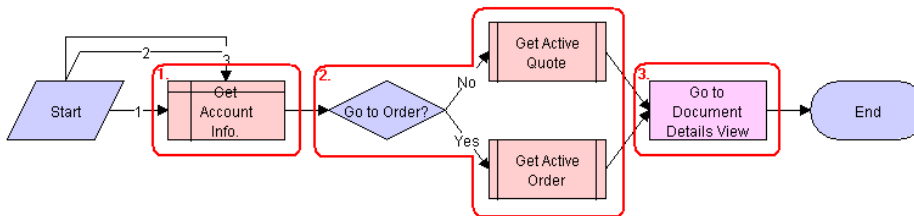


Figure 38. SIS OM New Products & Services Process Workflow

Workflow Description. This workflow does the following:

- 1 Gets the account information.
- 2 If the account is of type 'Residential', the workflow retrieves the active order. Otherwise it retrieves the active quote.

The workflow retrieves the active document (quote or order) from the session. If there is no active document, a new document is created and set as the active document. If there is an active document, the subprocess checks that the document is associated with the same customer account as the asset being modified, and that the document has the correct status. See [“SIS OM Active Quote Sub-Process” on page 257](#) and [“SIS OM Active Order Sub-Process” on page 258](#). If the quote does not meet these criteria, the workflow creates a new document and sets it as the active document.

- 3 Displays the document in the Quote Details or Order Entry - Line items view, as appropriate.

Associated Business Service Methods. The following table shows the step in this workflow that calls business service methods.

Workflow Step	Business Service Method Called
Go to Document Details View	GotoView

SIS OM New Products & Services Process - VORD

This workflow displays the active document, if there is one, or a newly created document in the Quote Detail or Order Entry - Line Items view. The user can then add line items, add or delete an asset, or change the attributes of the asset. This workflow is shown in [Figure 39 on page 254](#).

A user initiates this workflow by clicking the New button in the Networks screen's Nodes, Connections or All Elements view.

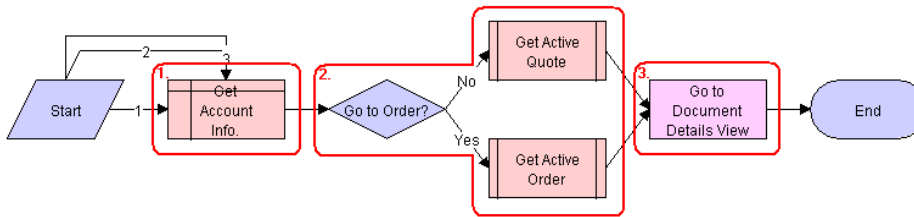


Figure 39. SIS OM New Products & Services Process - VORD Workflow

Workflow Description. This workflow does the following:

- Gets the account information associated with the current network and initiates the SIS OM New Products & Services workflow to display the active document.

Workflows to Redisplay the Service Profile

- The workflows that navigate to the current account's service profile, which displays the account's active assets, are:
 - "SIS OM Profile Process"
 - "SIS OM Profile Process - Order"

SIS OM Profile Process

This workflow makes the current quote the active quote. It then displays the Billing Items or Service Items view for the account associated with the current quote. This workflow is shown in [Figure 40](#).

A user initiates this workflow by clicking the Profile button in the Quote Details view.

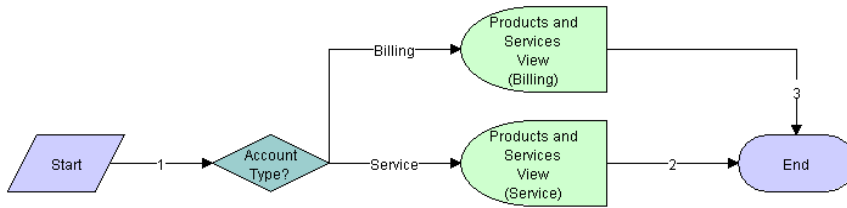


Figure 40. SIS OM Go to Products and Services Sub-Process Workflow

Workflow Description. This workflow does the following:

- 1 Displays an error message and stops if the quote header does not specify an account.
- 2 Sets the current quote as the active quote.
- 3 Displays the Service Items view.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset Active Quote	Set Profile Attribute
Set Active Quote	Set Profile Attribute
Go to Account Profile View	GotoView

SIS OM Profile Process - Order

This workflow is exactly the same as the “SIS OM Profile Process” workflow, except that it makes the current order the active order, and it displays the Service Items View for the account associated with that order.

Workflows to Modify a Service Item

This group of workflows allows a user to modify a service item. It consists of the workflow process and subprocesses:

- “SIS OM Modify Products & Services Process”
 - “SIS OM Active Quote Sub-Process”
 - “SIS OM Active Order Sub-Process”
 - “SIS OM Edit Complex Asset Workflow”

SIS OM Modify Products & Services Process

This workflow determines whether there is an active quote for the current account. If there is no active quote, it creates a new quote. It generates a quote line item to update the selected asset. If the product is a product with components, the workflow displays the service item in Configurator with all related open orders applied to it. Otherwise, it displays the Quote Detail view. This workflow is shown in [Figure 41 on page 256](#).

A user initiates this workflow by clicking the Modify button in the following views:

- Accounts screen, Service Items view
- Accounts screen, Account Summary view
- Networks screen, Nodes view
- Networks screen, Connections view
- Networks screen, All Elements view
- Orders screen, Order Entry - Line Items view

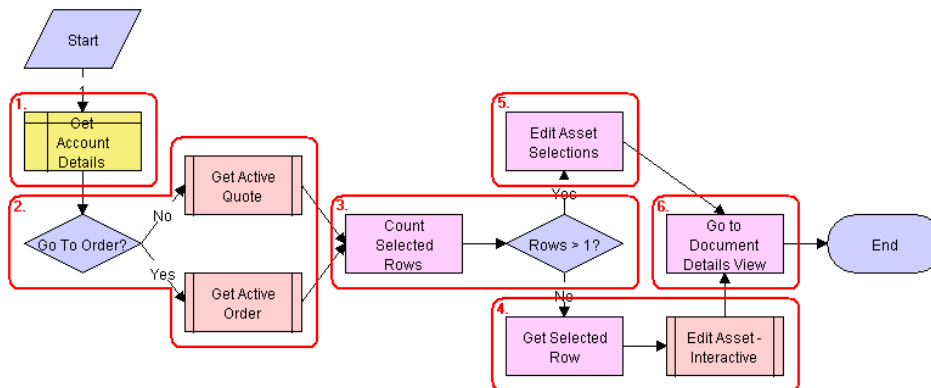


Figure 41. SIS OM Modify Products & Services Process Workflow

Workflow Description. This workflow does the following:

- 1 Gets the details of the current account.
- 2 Retrieves the active document (quote or order) for the session.
If the account is of type 'Residential' the active order is retrieved. Otherwise the active quote is retrieved. See SIS OM Active Quote Sub-process and SIS OM Active Order Sub-process.
- 3 Gets the number of assets that the user has selected to modify.
- 4 If the user has selected only one asset, the currently requested state of the asset is retrieved and displayed in the Product Configurator view. See SIS OM Edit Complex Asset Workflow.
- 5 If the user has selected more than one asset, the currently requested state of each asset is retrieved and added to the active document. See SIS OM Edit Complex Asset Workflow.
- 6 Displays active document.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Count Selected Rows	Get Selected Row Count
Get Selected Row	Get First Selected Row Value
Edit Asset Selections	Iterate Process For Selected Rows
Go to Document Details View	GotoView

SIS OM Active Quote Sub-Process

This workflow determines whether the user has an active quote for the current account. The workflow has two process properties that are set by the calling workflow: the Row ID of the customer account associated with the asset and the Row ID of the active quote. This workflow is shown in [Figure 42](#).

The following workflows initiate this workflow as a subprocess:

- SIS OM New Products & Services Process
- SIS OM New Products & Services Process - VORD
- SIS OM Modify Products & Services Process
- SIS OM Disconnect Products & Services Process
- SIS OM Suspend / Resume Products & Services Process

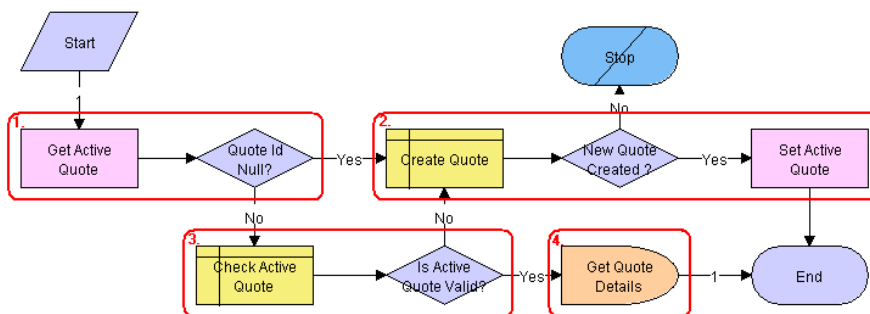


Figure 42. SIS OM Active Quote Sub-Process Workflow

Workflow Description. This workflow does the following:

- 1 Retrieves the active quote for the session and checks that there is a value.
- 2 If there is no active quote, a new quote is created and set as the active quote.

- 3 If there is an active quote, determines whether the quote is associated with the same customer account as the asset being modified, and whether the quote has a status of In Progress. If the quote is not valid, a new quote is created and set as the active quote.
- 4 If the new quote is valid, retrieves the price list Id and the currency code associated with the quote and returns them to the calling workflow.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Count Selected Rows	Get Selected Row Count
Get Selected Row	Get First Selected Row Value
Get Active Quote	Get Profile Attribute
Set Active Quote	Set Profile Attribute

SIS OM Active Order Sub-Process

This workflow determines whether the user has an active order for the current account. The workflow has two process properties that are set by the calling workflow: the Row ID of the customer account associated with the asset and the Row ID of the active order. This workflow is shown in [Figure 43](#).

The following workflows initiate this workflow as a subprocess:

- SIS OM New Products & Services Process
- SIS OM New Products & Services Process - VORD
- SIS OM Modify Products & Services Process
- SIS OM Disconnect Products & Services Process
- SIS OM Suspend / Resume Products & Services Process

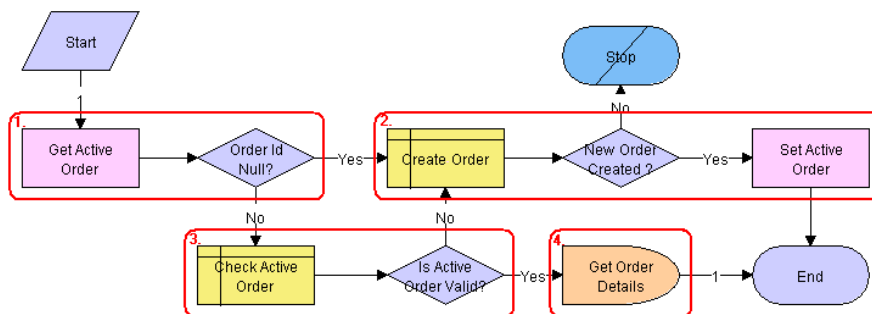


Figure 43. SIS OM Active Order Sub-Process Workflow

Workflow Description. This workflow does the following:

- 1 Retrieves the active order for the session and checks that there is a value.
- 2 If there is no active order, a new order is created and set as the active order.
- 3 If there is an active order, determines whether the order is associated with the same customer account as the asset being modified, and whether the quote has a status of Open. If the quote is not valid, a new order is created and set as the active order.
- 4 If the new order is valid, retrieves the price list Id and the currency code associated with the order and returns them to the calling workflow.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Get Active Quote	Get Profile Attribute
Set Active Quote	Set Profile Attribute

SIS OM Edit Complex Asset Workflow

This workflow applies the open and pending orders related to the selected asset and displays the requested state in the Product Configurator view. After the user makes the changes that specify the newly requested state, the workflow writes the delta of the two requested states as quote line items and adds them to the active quote. This workflow is shown in [Figure 44](#).

The SIS OM Modify Products & Services Process initiates this workflow.

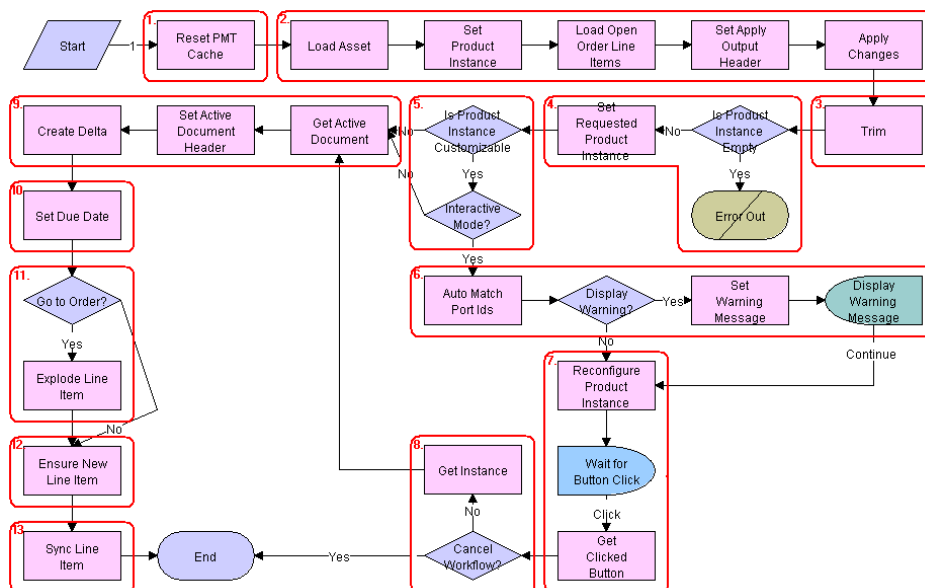


Figure 44. SIS OM Edit Complex Asset Workflow

Workflow Description. This workflow does the following:

- 1 Clears the business service cache of existing product instances.
- 2 Reads the asset from the database.

Only components that do not have a status of Inactive are included. The changes specified by all the open and pending orders related to the asset are applied to it to re-create the state of the service product as the customer has requested.
- 3 Removes components from the asset that do not have the 'Track As Asset' flag set.
- 4 Determines whether an open or pending order disconnects the root component. If one of the open or pending orders disconnects the root component, or there are no components of the asset with the 'Track As Asset' flag set, then the workflow returns an empty asset and displays an error message.
- 5 Tests for a customizable asset and interactive mode.

If the asset is customizable and the workflow is in interactive mode, the asset is displayed in the Product Configurator view, where the user can make changes to it. If the asset is not customizable or the workflow is not in interactive mode, it goes directly to Step 9.
- 6 Self-heals the asset such that the asset structure matches the product definition. If any changes are made to the asset, a warning message appears.
- 7 The future requested state of the asset is displayed in the Configurator view.
- 8 If the user clicks the Cancel button, the workflow is terminated. If the user clicks the Done button, the newly requested state is retrieved from the Configurator.
- 9 The workflow retrieves the active document. The delta of the previously requested state of the asset and the newly requested state of the asset are added as line items.
- 10 Sets the due date for all the line items.
- 11 If the active document is an order, the line items with a quantity greater than 1 are exploded into multiple copies of the line item, each with quantity 1.
- 12 Generates a unique asset integration Id for all line items with an action code of Add.
- 13 Saves the document to the database and refreshes the view.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance	Set Product Instance
Load Open Order Line Items	Find Orders
Set Apply Output Header	Set Output Header
Apply Changes	Apply
Trim	Trim

Workflow Step	Business Service Method Called
Set Requested Product Instance	Set Product Instance
Auto Match Port Ids	AutoMatch
Reconfigure Product Instance	Reconfigure Product Instance
Get Clicked Button	Get Cfg Button Click Information
Get Instance	Get Product Instance
Set Active Document Header	Set Output Header
Create Delta	Delta
Set Due Date	Set Field Value
Explode Line Item	Explode
Ensure New Line Item	Set Field Value
Sync Line Item	Synchronize

Workflows to Disconnect a Service Item

This group of workflows allows a user to disconnect a service. It consists of the workflow process and subprocess:

- “SIS OM Disconnect Products & Services Process”
 - “SIS OM Disconnect Asset Sub-process”

SIS OM Disconnect Products & Services Process

This workflow identifies an active document (quote or order) for the current account. Then it generates a line item to disconnect the selected asset and displays the document detail view. This workflow is shown in [Figure 45](#).

A user initiates this workflow by clicking the Disconnect button in the following views:

- Accounts screen, Service Items view
- Accounts screen, Account Summary view
- Networks screen, Nodes view
- Networks screen, Connections view
- Networks screen, All Elements view

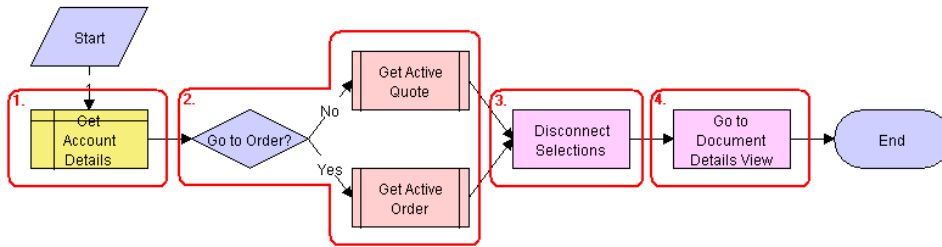


Figure 45. SIS OM Disconnect Products & Services Process Workflow

Workflow Description. This workflow does the following:

- 1 Gets the details of the current account.
- 2 Retrieves the active document (quote or order) for the session.
If the account is of type 'Residential', the active order is retrieved. Otherwise, the active quote is retrieved. See SIS OM Active Quote Sub-process and SIS OM Active Order Sub-process.
- 3 Allows the user to disconnect the asset.
The workflow gets the asset's current state and then creates quote line items to disconnect the asset in that state. See 'SIS OM Disconnect Asset Sub-process'.
NOTE: When deleting a network node, the process will automatically delete all associated network connections. If this is not desirable behavior, change the value of the Delete Connection argument to N.
- 4 Displays active document.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Disconnect Selections	Iterate Process For Selected Rows
Go to Document Details View	GotoView

SIS OM Disconnect Asset Sub-process

This workflow applies the open and pending orders related to the selected asset to get its requested state. Then it creates quote line items to disconnect the selected asset in that state. It adds these line items to the active quote. This workflow is shown in [Figure 46](#).

The SIS OM Disconnect Products & Services Process initiates this workflow.

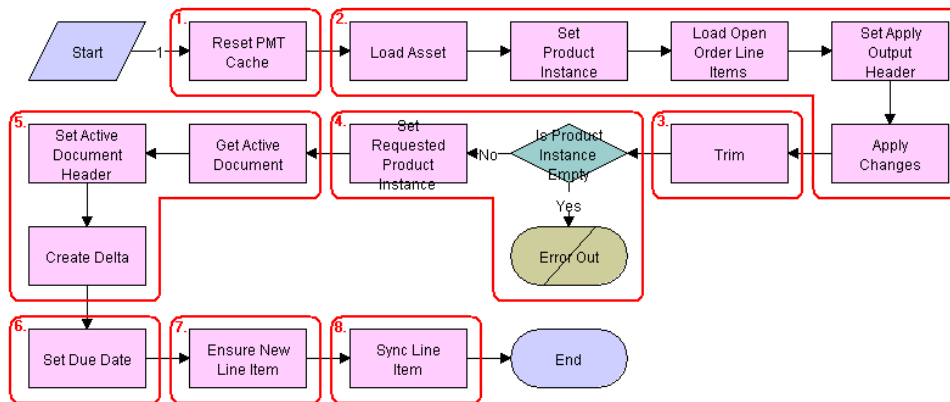


Figure 46. SIS OM Disconnect Asset Sub-process Workflow

Workflow Description. This workflow does the following:

- 1 Clears the business service cache of existing product instances.
- 2 Reads the asset from the database.

The workflow includes only components that do not have a status of Inactive. The workflow looks for all the orders with a status of Open or Pending that are related to the selected asset. The workflow applies the changes specified by those orders. This re-creates the state of the service product as the user has requested it.

- 3 Removes any components from the asset that do not have the 'Track As Asset' flag set.
- 4 Displays an error message if the asset is empty.

If one of the open or pending orders disconnects the root component, or there are no components that have the 'Track As Asset' flag set, the result is an empty asset. In this case, the workflow displays an error message.

- 5 Retrieves the active document. The workflow generates the delta of the requested state of the asset and the future empty state of the asset. This creates line items to disconnect the asset. The workflow adds these line items to the active document.
- 6 Sets the due date for the line items.
- 7 Generates a new asset integration ID for any line item with an action code of Add.
- 8 Saves the document to the database.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance	Set Product Instance
Load Open Order Line Items	Find Orders
Set Apply Output Header	Set Output Header
Apply Changes	Apply
Trim	Trim
Set Requested Product Instance	Set Product Instance
Set Active Document Header	Set Output Header
Create Delta	Delta
Set Due Date	Set Field Value
Ensure New Line Item	Set Field Value
Sync Line Item	Synchronize

Workflows to Suspend or Resume Service Items

This group of workflows allows a user to suspend or resume a service. It consists of the workflow process and subprocesses:

- [“SIS OM Suspend / Resume Products & Services Process”](#)
- [“SIS OM Suspend / Resume Asset Sub-process”](#)

SIS OM Suspend / Resume Products & Services Process

This workflow identifies an active document for the current account. Then it generates a line item to suspend or resume the selected asset and displays the document detail view. This workflow is shown in [Figure 47](#).

A user initiates this workflow by clicking the Suspend or Resume button in the following views:

- Accounts screen, Service Items view
- Accounts screen, Account Summary view
- Networks screen, Nodes view
- Networks screen, Connections view
- Networks screen, All Elements view

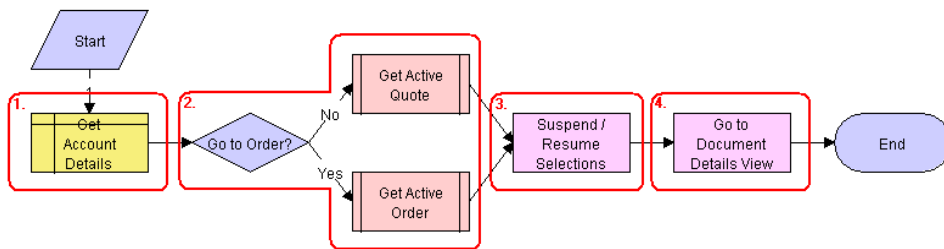


Figure 47. SIS OM Suspend / Resume Products & Services Process Workflow

Workflow Description. This workflow does the following:

- 1 Gets the details of the current account.
- 2 Retrieves the active document (quote or order) for the session.
If the account is of type 'Residential', the active order is retrieved. Otherwise, the active quote is retrieved. See SIS OM Active Quote Sub-process and SIS OM Active Order Sub-process.
- 3 Allows the user to suspend or resume the asset.
The workflow gets the asset's current state and then creates quote line items to suspend or resume the asset in that state. See 'SIS OM Suspend / Resume Asset Sub-process'.
- 4 Displays active document.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Suspend / Resume Selections	Iterate Process For Selected Rows
Go to Document Details View	GotoView

SIS OM Suspend / Resume Asset Sub-process

This workflow applies the open and pending orders related to the selected asset to get its requested state. Then it creates line items to suspend or resume the selected asset in that state. It adds these line items to the active document. This workflow is shown in [Figure 48](#).

The SIS OM Suspend / Resume Products & Services Process initiates this workflow.

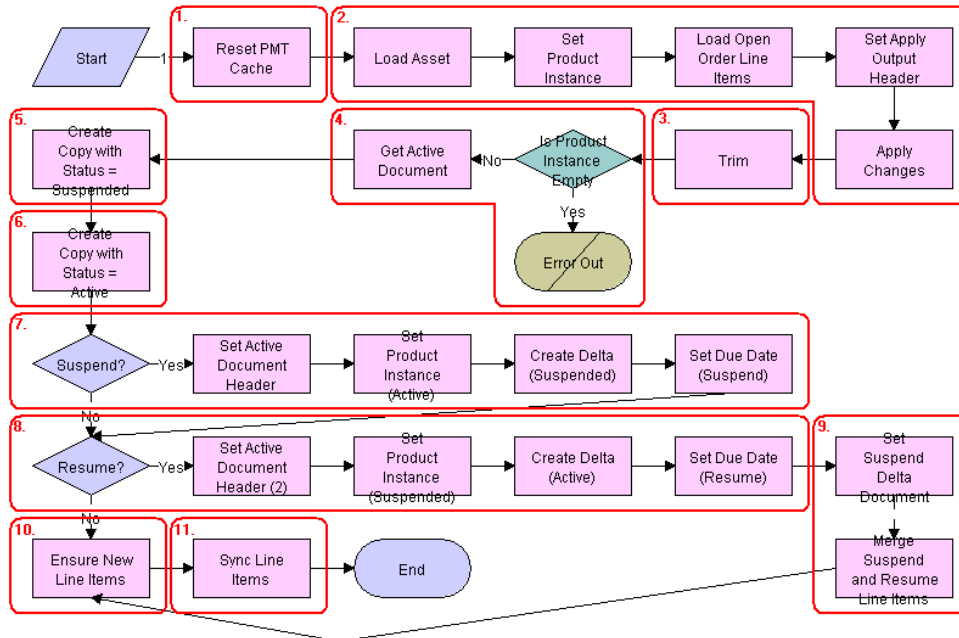


Figure 48. SIS OM Suspend / Resume Asset Sub-process

Workflow Description. This workflow does the following:

- 1 Clears the business service cache of existing product instances.
- 2 Reads the asset from the database.

The workflow includes only components that do not have a status of Inactive. The workflow looks for all the orders with a status of Open or Pending that are related to the selected asset. The workflow applies the changes specified by those orders. This re-creates the state of the service product as the user has requested it.

- 3 Removes any components from the asset that do not have the 'Track As Asset' flag set.
- 4 Displays an error message if the asset is empty.

If one of the open or pending orders disconnects the root component, or there are no components that have the 'Track As Asset' flag set, the result is an empty asset. In this case, the workflow displays an error message.

- 5 Copies the asset and sets the status of each component to 'Suspended'.
- 6 Copies the asset and sets the status of each component to Active.
- 7 If the Suspend button was clicked, the workflow generates the delta of the requested state of the asset and the future suspended state of the asset. This creates line items to suspend the asset. Sets the due date for each line item.

- 8 If the resume button was clicked, the workflow generates the delta of the requested state of the asset and the future active state of the asset. This creates line items to resume the asset, and it sets the due date for each line item.
- 9 Merges the line items of the suspend and resume requests into a single document.
- 10 Generates a new asset integration Id for any line item with an action code of Add.
- 11 Saves the document to the database.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance	Set Product Instance
Load Open Order Line Items	Find Orders
Set Apply Output Header	Set Output Header
Apply Changes	Apply
Trim	Trim
Create Copy with Status = Suspended	Set Field Value
Create Copy with Status = Active	Set Field Value
Set Active Document Header	Set Output Header
Set Requested Product Instance (Active)	Set Product Instance
Create Delta (Suspended)	Delta
Set Due Date (Suspend)	Set Field Value
Set Active Document Header (2)	Set Output Header
Set Requested Product Instance (Suspended)	Set Product Instance
Create Delta (Active)	Delta
Set Due Date (Resume)	Set Field Value
Set Suspend Delta Document	Set Product Instance
Merge Suspend and Resume Line Items	Merge
Ensure New Line Item	Set Field Value
Sync Line Item	Synchronize

Workflows for Contact-Based Asset-Based Ordering

In addition to basing orders on accounts, users can base orders on contacts when they use asset-based ordering. In addition to the service profile (which lists assets) being associated with the account and a number of the ordering processes being initiated from the Account Summary View, the service profile can be associated with a contact, and the same ordering processes can be initiated from Contact Summary View, with the order placed for a contact rather than for an account.

The following workflows support contact-based asset-based ordering:

- SIS OM Active Order Sub-Process - Contact
- SIS OM Active Quote Sub-Process - Contact
- SIS OM Disconnect Asset Sub-process - Contact
- SIS OM Disconnect Products & Services Process - Contact
- SIS OM Edit Complex Asset Workflow - Contact
- SIS OM Modify Products & Services Process - Contact
- SIS OM New Products & Services Process - Contact
- SIS OM Suspend / Resume Asset Sub-Process - Contact
- SIS OM Suspend / Resume Products & Services Process - Contact

These workflows work in the same way as the equivalent workflows used for account-based asset-based ordering, see the following topics for more information:

- [“Workflows to Modify a Service Item” on page 255](#)
- [“Workflows to Disconnect a Service Item” on page 261](#)
- [“Workflows to Modify the Service Profile” on page 252](#)
- [“Workflows to Suspend or Resume Service Items” on page 264](#)

Workflows for Quotes and Orders Assets Catalog Views

End users can use the Quote - Assets Catalog View and Orders - Assets Catalog View to display the assets associated with the Account specified in the quote or order header. The user can use these views to add a new line item to the quote or order that modifies, deactivates, suspends or resumes an asset. The following workflows are used by these views:

- SIS OM Disconnect Products & Services Process - Quote & Order
- SIS OM Modify Products & Service Process - Quote & Order
- SIS OM Suspend / Resume Products & Services Process - Quote & Order

These work in the same way as the equivalent workflows used for account-based asset-based ordering, which are covered earlier in this chapter.

Workflows That Support the Automatic Configuration of Customizable Products

This group of workflows supports the automatic configuration of customizable products that are based on a promotion definition. In the automatic configuration, the bundled promotions contain customizable products that are added with the default configuration when you add a promotion line item to a quote or an order. This group of workflows consists of the following process and subprocesses:

- "ISS Promotion Upgrade Process"
- "Headless Configuration Web Service"
- "SIS OM Get Future Asset Subprocess Workflow"
- "SIS OM Sync Delta Subprocess Workflow"

For more information about setting up the automatic configuration of customizable products that are based on a promotion definition, see "Process of Enabling the Automatic Configuration of Customizable Products" on page 167.

ISS Promotion Upgrade Process

This workflow, shown in Figure 49, upgrades one promotion to another promotion. The ISS Promotion Upgrade Process is initiated by a user when the user upgrades an existing promotion.

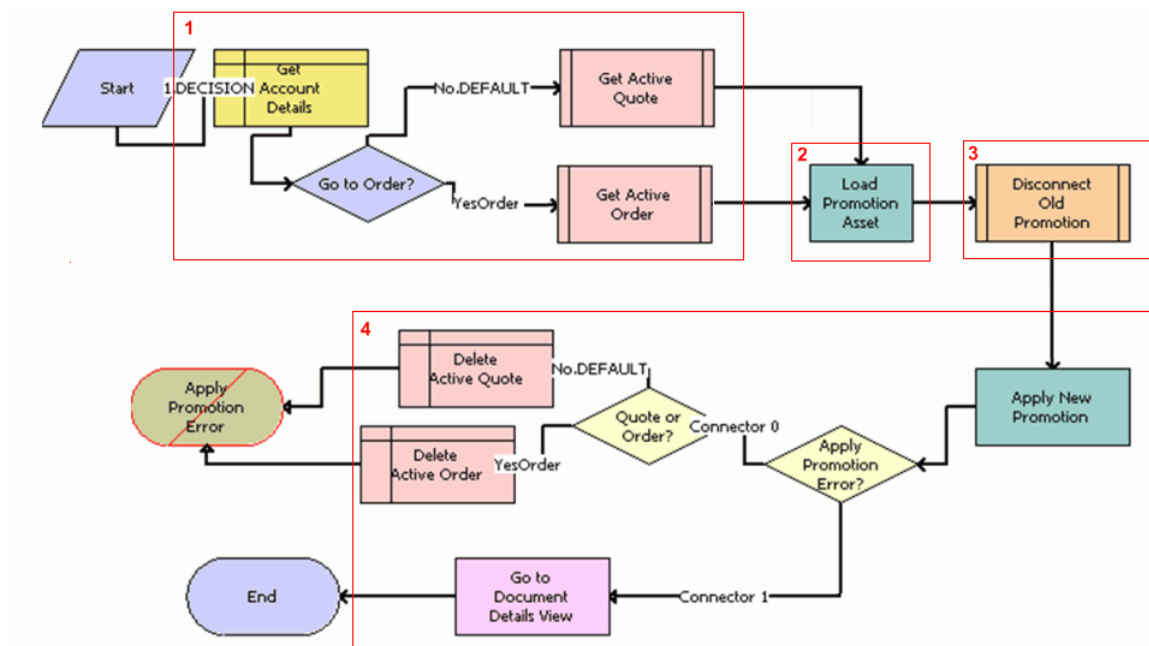


Figure 49. ISS Promotion Upgrade Process

Workflow Description. This workflow does the following:

- 1 This step gets the account details, and:
 - a If linked to an order, gets the active order.
 - b If linked to a quote (which is the default), gets the active quote.
- 2 This step loads the promotion asset.
- 3 This step disconnects the old promotion.
- 4 This step applies the new promotion, and:
 - a If errors are generated on applying the promotion, then it deletes the active document (order or quote) obtained in [Step 1](#).
 - b Otherwise, it goes to the document details view.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Load Promotion Asset	LoadPromAsset
Apply New Promotion	ApplyPromotion

Headless Configuration Web Service

The Headless Configuration Web service is a wrapper workflow for using Promotion AutoMatch functionality from Web services. This workflow, shown in [Figure 50](#), calls the Headless Configuration Service.

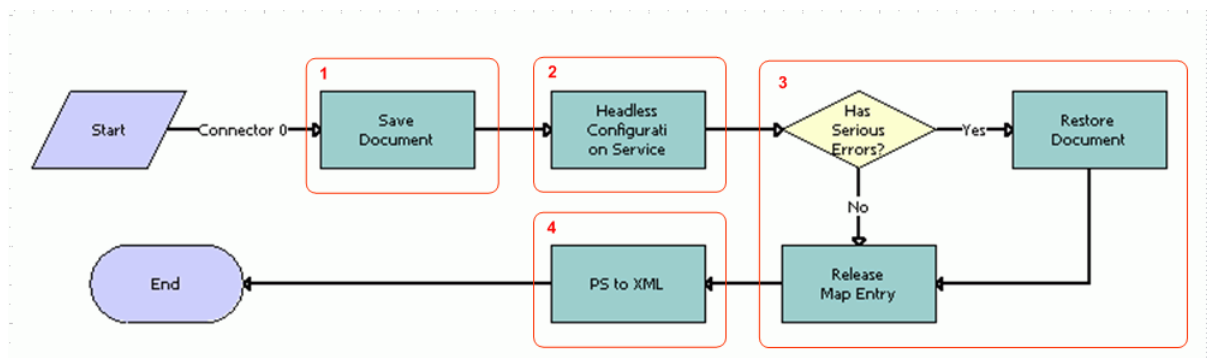


Figure 50. Headless Configuration Web Service

Workflow Description. This workflow does the following:

- 1 This step saves the current document.
- 2 This step calls the Headless Configuration Service.

- 3 This step determines whether errors have been generated:
 - a If errors were generated, then the document is restored to its original format.
 - b If no errors were generated, then the map entry is released.
- 4 This step converts the output property set to XML.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Save Document	Save Document
Headless Configuration Service	Apply Promotion Defaults
Restore Document	Restore Document
Release Map Entry	Release Map Entry
PS to XML	PropSetToXML

SIS OM Get Future Asset Subprocess Workflow

This workflow, shown in [Figure 51](#), is called by the “[Headless Configuration Service](#)” on [page 174](#) to get the future asset and the original asset. The future asset is the result of applying the current line item and any open orders to the original asset. This workflow returns the asset in its future state, the asset in its current state, and the document header with the root line item.

This workflow is called by the HdlsCfgSvcLoadABO signal.

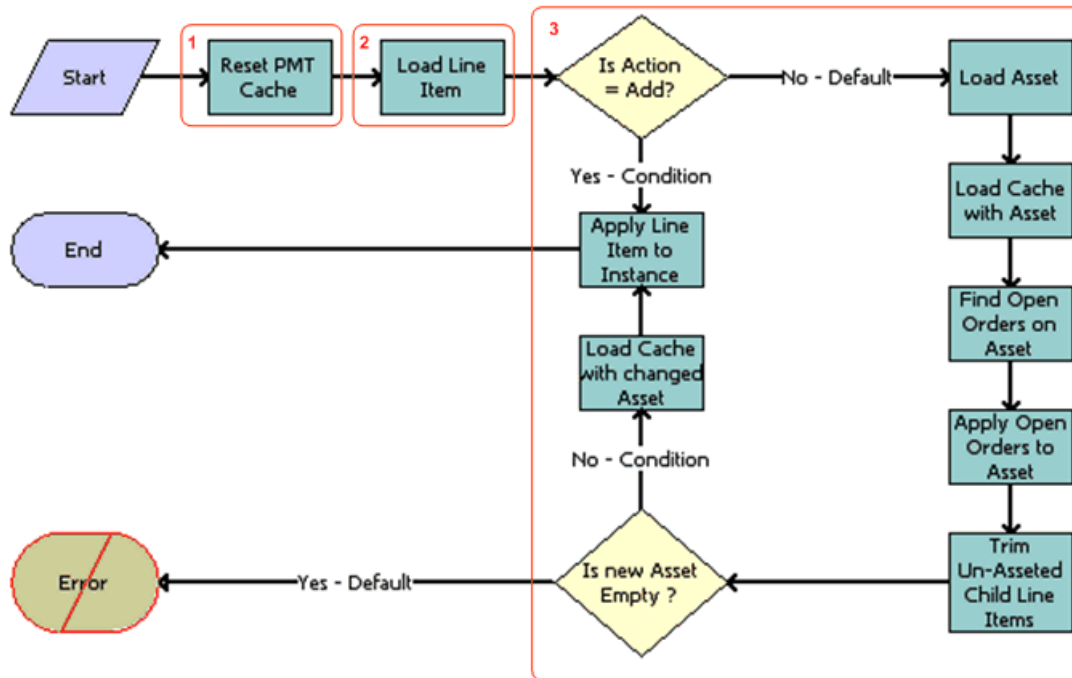


Figure 51. SIS OM Get Future Asset Subprocess

Workflow Description. This workflow does the following:

- 1 This step resets the cache to prevent an incomplete workflow from entering the PMT cache.
- 2 This step loads the line item.
- 3 This step checks the action code:
 - a If the action code is Yes (that is, Add), then it applies the line item to the instance.
 - b If the action code is No (which is the default), then:
 - It loads the asset.
 - It loads the cache with the asset.
 - It finds open orders on the asset.
 - It applies open orders to the asset.
 - It deletes child line items (that are not part of the asset).
 - It checks if the new asset is empty. If the new asset is empty (which is the default), an error is generated. If the new asset is not empty, then it loads the cache with the changed item and applies the line item to the instance.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Load Line Item	Query
Load Asset	Query
Load Cache with Asset	Set Product Instance
Find Open Orders on Asset	Find Orders
Apply Open Orders to Asset	Apply
Trim Un-Asseted Child Line Items	Trim
Load Cache with Changed Asset	Set Product Instance
Apply Line Item to Instance	Apply

SIS OM Sync Delta Subprocess Workflow

This workflow, shown in [Figure 52](#), is called by the “[Headless Configuration Service](#)” on [page 174](#) to synchronize the changes with the customizable product line item. The asset-based ordering difference between the batch validated asset and the original asset is calculated, and that is applied to the document.

This workflow is called by the HdlsCfgSvcSyncABO signal.

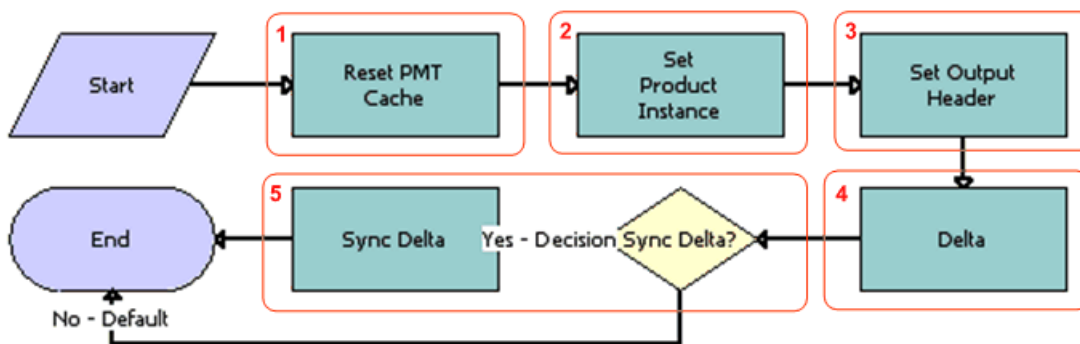


Figure 52. SIS OM Sync Delta Subprocess

Workflow Description. This workflow does the following:

- 1 This step resets the cache to prevent an incomplete workflow from entering the PMT cache.
- 2 This step sets the product instance.

- 3 This step sets the output header.
- 4 This step calls the Delta method of the SIS OM PMT service to compare the modified asset against the original asset.
- 5 This step checks if the decision is to synchronize the change:
 - If the decision to synchronize is Yes, then it synchronizes the change.
This decision is controlled by the Sync input argument of the Headless Configuration Service business service.
 - If the decision to synchronize is No, which is the default, then the process ends.

Associated Business Service Methods. The following table shows the steps in this workflow that call business service methods.

Workflow Step	Business Service Method Called
Reset PMT Cache	Reset
Set Product Instance	Set Product Instance
Set Output Header	Set Output Header
Delta	Delta
Sync Delta	Synchronize

16 Product Data Service and Import/Export API Reference

This chapter covers the Product Data Service API and the Product Versioned Object Data Import and Export API. It includes the following topics:

- [“About the Product Data Service API” on page 275](#)
- [“Product Data Services API Architecture” on page 275](#)
- [“Product Data Services API Methods” on page 276](#)
- [“PDS PublishCatalog Test Sample Workflow” on page 323](#)
- [“Product Versioned Object Data Import and Export Business Service Reference” on page 324](#)

About the Product Data Service API

The Product Data Service API allows you to use the catalog, product selection, and product search capabilities of the Siebel Business Application without using the Siebel CRM user interface.

These APIs give you complete flexibility to build the user interface. You can use your own tool to design the user interface. Your user interface is completely independent of the Siebel user interface, but you can use these APIs to call all the functionality that the Siebel Business Application uses to work with products, including eligibility, compatibility, and catalog search.

Product Data Services API Architecture

The Product Data Service API is provided as Siebel business services and workflows inside the Siebel Business Application. The Siebel Web Services Framework can consume a WSDL document and create a proxy business service to publish siebel business services and workflows as Web Services. Once published as Web Services, all the external applications will be able to access these product selection APIs through supported protocols (HTTP, MQ, and so on) by exchanging XML messages.

Within the Siebel Business Application, the Data Services API includes the following:

- **Data Services API Methods.** These methods allow you to access Siebel Data, such as Catalog, Categories, Products, Product Details, Favorites, Quote, and Order. They are based on the core Data Sync service (CSSEAIDataSyncService).
- **Workflows.** Workflows use these methods to add an asset to a quote or order, modify or disconnect asset from quote or order, and get projected assets without any use of the user interface.

This architecture is shown in [Figure 53](#).

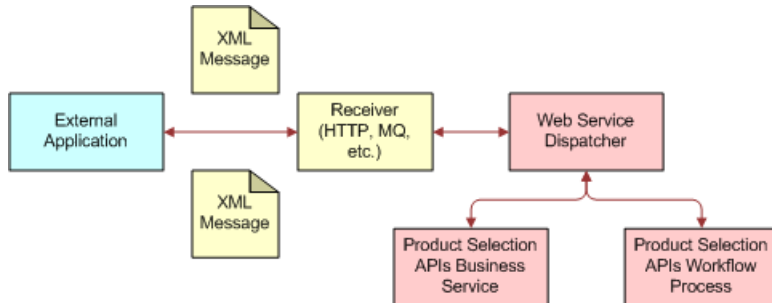


Figure 53. Data Service API Architecture

Product Data Services API Methods

The Product Data Service APIs include the following methods:

Catalog API:

- [“GetCatalog Method” on page 277](#)
- [“GetCatalogCategories Method” on page 279](#)
- [“GetCategoryProducts Method” on page 280](#)
- [“GetProductDetails Method” on page 283](#)
- [“PublishCatalog Method” on page 285](#)
- [“GetFavorites Method” on page 288](#)
- [“GetFavoriteItems Method” on page 288](#)
- Product Details API
 - [“GetRelatedProducts and GetRelatedPromotions Method” on page 289](#)
 - [“GetAttrTypesDomains Method” on page 291](#)
 - [“GetChild Method” on page 292](#)
- Search API
 - [“GetSearchOptions Method” on page 293](#)
 - [“GetSearchParameters Method” on page 295](#)
 - [“ExecuteSearch Method” on page 297](#)
- Add Favorite API
 - [“AddFavoriteToQuote, AddFavoriteToOrder, AddFavoriteItemtoQuote, AddFavoriteItemtoOrder, SaveQuoteAsFavorite, and SaveOrderAsFavorite Methods” on page 301](#)

- Quote / Order API
 - “DeleteQuote Method” on page 302
 - “InsertQuote Method” on page 307
 - “UpdateQuote Method” on page 307
 - “DeleteQuoteItem Method” on page 308
 - “InsertQuoteItem Method” on page 308
 - “UpdateQuoteItem Method” on page 309
 - “DeleteOrder Method” on page 309
 - “InsertOrder Method” on page 313
 - “UpdateOrder Method” on page 313
 - “DeleteOrderItem Method” on page 314
 - “InsertOrderItem Method” on page 314
 - “UpdateOrderItem Method” on page 315
 - “GetActiveQuote Method” on page 315
 - “SetActiveQuote Method” on page 318
 - “GetActiveOrder Method” on page 319
 - “SetActiveOrder Method” on page 320

GetCatalog Method

Gets a list of catalogs for a given user name and context information. External.

Syntax

```
ErrCode GetCatalog (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	SiebelMessage
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Details of Input Arguments

Property	Type	Value	Description
SiebelMessage	Integration Object	PDS Catalog Interface.	

Example of Input Arguments

```
CCFPropertySet@0013BA08 p#3 c#2 type="" vt=0 value=""
{
  c[1] CCFPropertySet@0B5D7580 p#4 c#1 type="SiebelMessage" vt=0 value=""
  {
    p["MessageId"] = "";
    p["IntObjectName"] = "PDS Catalog Interface";
    p["MessageType"] = "Integration Object";
    p["IntObjectFormat"] = "Siebel Hierarchical";

    c[0] CCFPropertySet@0B5C4378 p#0 c#1 type="ListofPDS Catalog Interface" vt=0
value=""
    {
      c[0] CCFPropertySet@0B204790 p#1 c#0 type="Product Catalog" vt=0 value=""
      {
        p["searchspec"] = "EXISTS ([Channel Partner] like 'UANPartner1')";
      }
    }
  }
}
```

Example of Output Arguments

```
CCFPropertySet@0013BB40 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@075A82E8 p#4 c#1 type="SiebelMessage" vt=0 value=""
  {
    p["MessageId"] = "2-3ZBA";
    p["IntObjectName"] = "PDS Publish Catalog Interface";
    p["MessageType"] = "Integration Object";
    p["IntObjectFormat"] = "Siebel Hierarchical";

    c[0] CCFPropertySet@0B51FFB8 p#0 c#1 type="Listof PDS Catalog Interface " vt=0
value=""
    {
      .....
    }
  }
}
```

Error Conditions

None

GetCatalogCategories Method

Gets catalog categories for a given catalog. External

Syntax

```
ErrCode GetCatalogCategories(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	Hierarchy: SearchSpec
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Catalog Category Interface")

Example of Output Arguments

```
CCFPropertySet@0012CC58 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@1078D580 p#4 c#1 type="SiebelMessage" vt=0 value=""
  {
    p["MessageId"] = "42-WAQ";
    p["MessageType"] = "Integration Object";
    p["IntObjectName"] = "PSS Catalog Categories Interface";
    p["IntObjectFormat"] = "Siebel Hierarchical";

    c[0] CCFPropertySet@0BD55380 p#0 c#1 type="ListOfPSS Catalog Categories Interface"
    vt=0 value=""
    {
      c[0] CCFPropertySet@0BD82770 p#4 c#1 type="Product Catalog" vt=0 value=""
      {
        p["Version"] = "1";
        p["Description"] = "ERM Catalog";
        p["Name"] = "ERM Catalog";
        p["Description - Translation"] = "ERM Catalog";
        p["Field"] = "[Value]";
        c[0] CCFPropertySet@0BF21F30 p#0 c#1 type="ListOfCatalog Category" vt=0
        value=""
```


Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	Hierarchy: SearchSpec String: ContextMode (Optional) Hierarchy: Context (Optional)
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Category Product Interface")

Example of Input Arguments

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""
{
  p["ContextMode"] = "Quote"
  c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="Context" vt=0 value=""
  {
    .....
  }
  c[0] CCFPropertySet@1088CCE8 p#4 c#1 type=" SearchSpec" vt=0 value=""
  {
    "CatalogName" = "Value1"
    "Name2" = "Value2"
    "SearchSpec" = "Last_Updated_Dt is >= {Date Specified}"
  }
}
```

An example of outputArgs:

```
CCFPropertySet@0012CC58 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@1078D580 p#4 c#1 type="Siebel Message" vt=0 value=""
  {
    p["MessageId"] = "42-WAQ";
    p["MessageType"] = "Integration Object";
    p["IntObjectName"] = " PSS Category Product Interface ";
    p["IntObjectFormat"] = "Siebel Hierarchical";

    c[0] CCFPropertySet@0BD55380 p#0 c#1 type="ListofPSS Category Product Interface"
    vt=0 value=""
    {
      c[0] CCFPropertySet@0BD82770 p#4 c#1 type="Catalog Category" vt=0 value=""
```

```

    {
      p["Catalog Name"] = "ERM Catalog";
      p["Version"] = "1";
      p["Description"] = "ERM Category";
      p["Name"] = "ERM Category";
      p["Description - Translation"] = "ERM Category";
      p["Field"] = "[Value]";
      c[0] CCFPropertySet@0BF21F30 p#0 c#1 type="ListofInternal Product" vt=0
value=""
      {
        c[0] CCFPropertySet@0BD2D7A0 p#85 c#2 type="Internal Product" vt=0
value=""
          {
            p["Name"] = "xxx";
            p["Field"] = "[Value]";
          }
          c[...] CCFPropertySet@0BD2D7A0 p#85 c#2 type="Internal Product" vt=0
value=""
            {
              p["Name"] = "xxx";
              p["Field"] = "[Value]";
            }
          }
        }
      }
    }
  }
}

```

Error Conditions

Error ID	Error Message Text	User Action/Resolution
IDS_ERR_ANIESALES_MISSING_SERVICE_NAME	The '%1' user property is not defined in business service '%2'.	Need to define user prop "Data Sync Service (GetCategoryProducts)" in "Product Selection Service".
SSAOMErrCannotCreateService	Unable to create the Business Service '%1	Check to see if the business service defined in user prop "Data Sync Service (GetCategoryProducts)" in "Product Selection Service" is defined correctly.

GetProductDetails Method

Gets a list of product details for given catalog, category and context. External

Syntax

```
ErrCode GetProductDetails (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	Hierarchy: SearchSpec String: ContextMode (Optional) Hierarchy: Context (Optional)
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Product Details Interface")

Example of Input Arguments

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""
{
  p["ContextMode"] = "Quote"
  c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="Context" vt=0 value=""
  {
    .....
  }
  c[1] CCFPropertySet@1088CCE8 p#4 c#1 type=" SearchSpec" vt=0 value=""
  {
    "CatalogName" = "Value1"
    "Name2" = "Value2"
    "SearchSpec" = "Last_Updated_Dt is >= {Date Specified}"
  }
}
```

An example of outputArgs:

```
CCFPropertySet@0012CC58 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@1078D580 p#4 c#1 type="Siebel Message" vt=0 value=""
  {
    p["MessageId"] = "42-WAQ";
    p["MessageType"] = "Integration Object";
```

```

p["IntObjectName"] = " PSS Product Details Interface ";
p["IntObjectFormat"] = "Siebel Hierarchical ";

c[0] CCFPropertySet@0BD55380 p#0 c#1 type="ListofPSS Product Details Interface"
vt=0 value=""
{
  c[0] CCFPropertySet@0BD82770 p#4 c#1 type="Catalog Category" vt=0 value=""
  {
    p["Catalog Name"] = "ERM Catalog";
    p["Version"] = "1";
    p["Description"] = "ERM Category";
    p["Name"] = "ERM Category";
    p["Description - Translation"] = "ERM Category";
    p["Field"] = "[Value]";
    c[0] CCFPropertySet@0BF21F30 p#0 c#1 type="ListofInternal Product" vt=0
value=""
    {
      c[0] CCFPropertySet@0BD2D7A0 p#85 c#2 type="Internal Product" vt=0
value=""
      {
        p["Name"] = "xxx";
        p["Field"] = "[Value]";
        c[0] CCFPropertySet@0BF21F30 p#0 c#1 type="Listof Internal Product_XA
Product Attribute Values" vt=0 value=""
        {
        }
        c[0] CCFPropertySet@0BF21F30 p#0 c#1 type="Listof Internal Product_Related
Product" vt=0 value=""
        {
        }
        c[0] CCFPropertySet@0BF21F30 p#0 c#1 type="ListofInternal
Product_Equivalent Product" vt=0 value=""
        {
        }
      }
      c[... ] CCFPropertySet@0BD2D7A0 p#85 c#2 type="Internal Product" vt=0
value=""
      {
        p["Name"] = "xxx";
        p["Field"] = "[Value]";
        ...

```


Details of Input Arguments

Property	Type	Value	Description
EligibilityMode	String	0,1,2	0: No EligibilityCheck 1: Check Eligibility without Filtering non-eligible Products 2: Check Eligibility by filtering non-eligible products
ContextMode	String	SiebelContext, ExternalContext	SiebelContext: Using existing Quote/ Order Information in Siebel Database. In this case, the API will construct the Context. ExternalContext: External Call will provide the context information, API will pass them directly to the Pricing and Eligibility Process.
PricingMode	String	Y/N	
Context	Hierarchy	See example	
SiebelMessage	Integration Object	PDS Publish Catalog Interface	

Example of Input Arguments

```
CCFPropertySet@0013BA08 p#3 c#2 type="" vt=0 value=""
{
  p["EligibilityMode"] = "2";
  p["ContextMode"] = "Siebel Context";
  p["PricingMode"] = "Y";

  c[0] CCFPropertySet@0B455048 p#0 c#2 type="Context" vt=0 value=""
  {
    c[0] CCFPropertySet@0B5D7EA0 p#4 c#0 type="Context" vt=3 value=""
    "
    {
      p["BusObj Name"] = "Quote";
      p["ContextRowId"] = "2-47J4V";
      p["Signal Mode"] = "Quote";
      p["BusCompName"] = "Quote";
    }
  }
  c[1] CCFPropertySet@0B33E658 p#1 c#0 type="ProcessingInstructions" vt=0 value=""
```

```

    {
      p["Siebel-Property-Set"] = "EscapeNames=false";
    }
  }
c[1] CCFPropertySet@0B5D7580 p#4 c#1 type="SiebelMessage" vt=0 value=""
{
  p["MessageId"] = "";
  p["IntObjectName"] = "PDS Publish Catalog Interface";
  p["MessageType"] = "Integration Object";
  p["IntObjectFormat"] = "Siebel Hierarchical";

  c[0] CCFPropertySet@0B5C4378 p#0 c#1 type="ListOfPDS Publish Catalog Interface"
vt=0 value=""
  {
    c[0] CCFPropertySet@0B204790 p#1 c#0 type="Product Catalog" vt=0 value=""
    {
      p["searchspec"] = "EXISTS ([Channel Partner] like 'UANPartner1')";
    }
  }
}
}

```

Example of Output Arguments

```

CCFPropertySet@0013BB40 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@075A82E8 p#4 c#1 type="SiebelMessage" vt=0 value=""
  {
    p["MessageId"] = "2-3ZBA";
    p["IntObjectName"] = "PDS Publish Catalog Interface";
    p["MessageType"] = "Integration Object";
    p["IntObjectFormat"] = "Siebel Hierarchical";

    c[0] CCFPropertySet@0B51FFB8 p#0 c#1 type="ListOfPDS Publish Catalog Interface"
vt=0 value=""
    {
      .....
    }
  }
}
}

```

Error Conditions

None.

GetFavorites Method

Get a list quote or order favorites based on search specification. External

Syntax

```
ErrCode GetFavorites (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	Hierarchy: SearchSpec
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Favorites Interface")

Error Conditions

Error ID	Error Message Text	User Action/Resolution
IDS_ERR_ANIESALES_MISSING_SERVICE_NAME	The '%1' user property is not defined in business service '%2'.	Define user prop "Data Sync Service (GetFavorites)" in "Product Selection Service".
SSAOMErrCannotCreateService	Unable to create the Business Service '%1	'Check to see if the business service defined in user prop "Data Sync Service (GetFavorites)" in "Product Selection Service" is defined correctly.

GetFavoriteItems Method

Get a list of favorite items for a given favorite. External

Syntax

```
ErrCode GetFavoriteItems (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```


Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	Hierarchy: SearchSpec
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Favorite Items Interface")

Error Conditions

Error ID	Error Message Text	User Action/Resolution
IDS_ERR_ANIESALES_MISSING_SERVICE_NAME	The '%1' user property is not defined in business service '%2'.	Define user prop "Data Sync Service (GetFavoriteItems)" in "Product Selection Service".
SSAOMErrCannotCreateService	Unable to create the Business Service '%1	'Check to see if the business service defined in user prop "Data Sync Service (GetFavoriteItems)" in "Product Selection Service" is defined correctly.

GetRelatedProducts and GetRelatedPromotions Method

Gets related products. Gets related promotions. External

NOTE: GetRelatedPromotions has similar syntax and logic to GetRelatedProducts.

Syntax

```
ErrCode GetRelatedProducts (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	Hierarchy: SearchSpec
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Related Products")

Example of Input Arguments

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""  
{  
  c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="SearchSpec" vt=0 value=""  
  {  
    p["SearchSpc"] = "xxx"  
  }  
}
```

Example of Output Arguments

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""  
{  
  c[1] CCFPropertySet@1088CCE8 p#4 c#1 type="Siebel Message" vt=0 value=""  
  {  
    p["MessageId"] = "";  
    p["MessageType"] = "Integration Object";  
    p["IntObjectName"] = "PSS Related Products";  
    p["IntObjectFormat"] = "Siebel Hierarchical";  
  }  
  
  c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="Internal Product" vt=0 value=""  
  {  
    c[0] CCFPropertySet@108797E8 p#0 c#1 type="ListOfPSS Related Products" vt=0 value=""  
    {  
      c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="Component Product" vt=0 value=""  
      {  
      }  
      c[1] CCFPropertySet@1088CCE8 p#4 c#1 type="Component Product" vt=0 value=""  
      {  
      }  
    }  
  }  
}
```

Error Conditions

None.

GetAttrTypesDomains Method

Gets all the attribute types and domain details for a given product. External.

Syntax

```
ErrCode GetAttrTypesDomains (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	Hierarchy: SearchSpec
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Attribute Type and Domain Interface")

Example of Input Arguments

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""
{
    c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="SearchSpec" vt=0 value=""
    {
        p["Name"] = "XXX";
        p["SearchSpc"] = "XXXXX"
    }
}
```

Example of Output Arguments:

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""
{
    c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="SiebelMessage" vt=0 value=""
    {
        p["MessageId"] = "";
        p["MessageType"] = "Integration Object";
        p["IntObjectName"] = "PSS Attribute Type and Domain Interface ";
        p["IntObjectFormat"] = "Siebel Hierarchical ";
    }
    c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="Internal Product" vt=0 value=""
    {
        c[0] CCFPropertySet@108797E8 p#0 c#1 type="ListOfPSS Attribute Type and Domain Interface" vt=0 value=""
```

```
    {  
    //the output will have the following info:  
    // Name, type, hidden, read-only, required flags, current selected value and domain  
    }  
  }  
}
```

Error Conditions

None.

GetChild Method

Gets a list of child business component details for a given product and the child business component name, and the required fields to return.

Syntax

```
ErrCode GetChild (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	String: Product Name String: Child BC Name Hierarchy: Child BC Field
CCFPropertySet & outputArgs	Out	Hierarchy: Child Details

Example of Input Arguments

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""  
{  
  p["ProductName"] = "XXX";  
  p["ChildBCName"] = "XXX";  
  c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="ChildBCField" vt=0 value=""  
{  
  p["Field1"] = "";  
  p["Field2"] = "";  
  p["Field3"] = "";  
}
```

```
}

```

Example of Output Arguments

```
CCFPropertySet@0012C5B0 p#0 c#1 type="" vt=0 value=""
{
    c[0] CCFPropertySet@1088CCE8 p#4 c#1 type="[ChildBCName]" vt=0 value=""
    {
        p["Field1"] = "Value1";
        p["Field2"] = "Value2";
        p["Field3"] = "Value3";
    }
}
```

Error Conditions

None.

GetSearchOptions Method

Displays product classes, such as Computer, Printer, and so on. It can also use All to refer to all classes. External.

Syntax

```
ErrCode GetSearchOptions (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs)
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	SearchSpec
CCFPropertySet & outputArgs	Out	Hierarchy: SearchOption

Details of Input Arguments

Property	Type	Value	Description
SearchSpec	String		Optional, to be applied on the search for product classes
SiebelOption	Hierarchy	See example	Key is row_id of the product class record and value is class name. [ID_ALL]/"All" is added for all.

Example of Input Arguments

```
CCFPropertySet@0012D364 p#1 c#0 type="" vt=0 value=""  
{  
  p["SearchSpec"] = "[VOD Name] = '10x System Class'";  
}
```

Example of Output Arguments

```
CCFPropertySet@0013C1F0 p#0 c#1 type="" vt=0 value=""  
{  
  c[0] CCFPropertySet@0C168658 p#95 c#0 type="SearchOption" vt=0 value=""  
  {  
    p["1-15A09"] = "Horizon Autos";  
    p["1-E021"] = "Siebel TAM & CAM Options";  
    p["1-3CE20"] = "Value Bundles";  
    p["1-3020J"] = "High End Computers";  
    p["1-27PHD"] = "S-xyz Frames";  
    p["2-46J76"] = "TV";  
    p["1-27PGH"] = "S-xyz 9 Speed Chain";  
    p["1-3DMCT"] = "PCS 22in Mon";  
    p["1-1HQEQ"] = "Control Systems";  
    p["1-E00T"] = "PCS Product Options";  
    p["1-27PG5"] = "S-xyz Chains";  
    p["1-E00P"] = "PCS - Desktops";  
    p["1-27PA0"] = "S-xyz Clothes";  
    p["1-3DMCH"] = "PCS SDRAM";  
    p["1-3DMBT"] = "PCS HardDrive EIDE";  
    p["1-E01L"] = "Siebel Recommended Solutions";  
    p["1-E015"] = "PCS - Servers - II";  
    p["ID_ALL"] = "All";  
    p["1-38COT"] = "S-xyz Road";  
    p["1-E00L"] = "PCS - Servers";  
    p["1-E00X"] = "Siebel .COM Applications";  
    p["1-3DMCP"] = "PCS 19in Mon";  
    p["1-3CE27"] = "Application Software";  
    p["1-3DMBX"] = "PCS HardDrive SCSI";  
    p["1-Y5WE"] = "Service Offerings";  
    p["1-3CE2K"] = "Additional Items";  
    p["1-3CE34"] = "Network Equipments";  
    p["1-3DMCL"] = "PCS 17in Mon";  
    ... ..
```

```

    }
}

```

Error Conditions

None.

GetSearchParameters Method

Gets the list of attributes available for the class(es) based on the input search specification in the SiebelMessage. External

Syntax

```
ErrCode GetSearchParameters(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	SiebelMessage
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Details of Input Arguments

Property	Type	Value	Description
SiebelMessage	Integration Object	PDS Product Attributes Interface	

Example of Input Arguments

```

CCFPropertySet@0013BADc p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@0AE60128 p#4 c#1 type="Siebel Message" vt=0 value=""
  {
    p["MessageId"] = "42-WAQ";
    p["IntObjectName"] = "PDS Product Attributes Interface";
    p["MessageType"] = "Integration Object";
    p["IntObjectFormat"] = "Siebel Hierarchi cal ";

    c[0] CCFPropertySet@0BFCE7C0 p#0 c#1 type="ListofPDS Product Attributes Interface"
vt=0 value=""

```

```
{
  c[0] CCFPropertySet@0BFC8B60 p#1 c#0 type="ISS Class VOD BusComp" vt=0 value=""
  {
    p["searchspec"] = "[VOD Name]=' Siebel Product Documentation' or [VOD
Name]=' Siebel Applications' ";
  }
}
}
```

Example of Output Arguments

```
CCFPropertySet@0013C1F0 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@0C203838 p#4 c#1 type="Siebel Message" vt=0 value=""
  {
    p["MessageId"] = "42-WAQ";
    p["IntObjectName"] = "PDS Product Attributes Interface";
    p["MessageType"] = "Integration Object";
    p["IntObjectFormat"] = "Siebel Hierarchical";

    c[0] CCFPropertySet@0BADEAE0 p#0 c#2 type="ListofPDS Product Attributes Interface"
vt=0 value=""
    {
      c[0] CCFPropertySet@0C1EDBC0 p#7 c#1 type="ISS Class VOD BusComp" vt=0 value=""
      {
        p["VOD Name"] = "Siebel Applications";
        p["VOD Id"] = "1-3LXPD";
        p["Locked Date"] = "";
        p["Locked By"] = "";
        p["VOD Type"] = "Product Class Definition";
        p["Locked Flag"] = "N";
        p["Description"] = "";

        c[0] CCFPropertySet@0C1FD1E8 p#0 c#4 type="ListofISS Product Attribute
BusComp" vt=0 value=""
        {
          c[0] CCFPropertySet@0C1FA3C0 p#21 c#0 type="ISS Product Attribute
BusComp" vt=0 value=""
          {
            p["Attribute Id"] = "1-3LXPF";
```


Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Option, OptionId, Context, ContextMode, SearchSpec, ResultSize, BatchNumOfId, SiebelMessage
CCFPropertySet& outputArgs	Out	Hierarchy :SiebelMessage

Details of Input Arguments

Property	Type	Value	Description
Option	String	For example: Application Software	Product class name or All (flat product class search) NOTE: This property must be provided if the OptionId property is not specified.
OptionId	String	For example: 1-3CE27	Indicates the Row_id of the product class record. NOTE: This property must be provided if the Option property is not specified.
Hierarchy	See the examples that follow this table.	SearchSpec	If the Option property is not set to All, or the OptionId is specified, this property set contains the constraints on the class attributes. If the Option property is set to All, this property set contains the criteria on product fields or an individual child property set (where SearchSpec can be specified for the explicit SearchSpec expression).
ContextMode	String	SiebelContext, ExternalContext, NoEligibility	SiebelContext: Using existing Quote/ Order Information in Siebel Database. In this case, the API will construct the Context based on the provided row_id ExternalContext: External Call will provide the context information, API will pass them directly to the Pricing and Eligibility Process. NoEligibility: Does not check eligibility.
ResultSize	Number	For example: 30	The number of products that are retrieved from the query result.

Property	Type	Value	Description
BatchNumOfId	Number	For example: 50	The number of row IDs that are concatenated at once and that respond to the SQL QUERY statement. This number is set to 50 by default, depending on the database configuration.
Context	Hierarchy	See the examples that follow this table.	None.
Integration Object	SiebelMessage	PDS Product Interface	None.

Example of Input Arguments

```
CCFPropertySet@0013BA34 p#3 c#2 type="" vt=0 value=""
{
  p["ContextMode"] = "Siebel Context";
  p["ResultSize"] = "50";
  p["Option"] = "All";

  c[0] CCFPropertySet@0C1EA490 p#0 c#2 type="ContextWrapper" vt=0 value=""
  {
    c[0] CCFPropertySet@0C1BEDE0 p#4 c#0 type="Context" vt=3 value=""
    {
      p["BusObjName"] = "Quote";
      p["ContextRowId"] = "2-47J4V";
      p["SignalMode"] = "Quote";
      p["BusCompName"] = "Quote";
    }
  }
  c[1] CCFPropertySet@0C1B3F50 p#0 c#2 type="SearchSpecWrapper" vt=0 value=""
  {
    c[0] CCFPropertySet@0C1454D0 p#0 c#3 type="SearchSpec" vt=3 value=""
    {
      c[0] CCFPropertySet@0B87A2C8 p#0 c#0 type="SearchSpec" vt=3 value="[Name] =
'UANProduct1' or [Name] = 'UANProduct3'"
      c[1] CCFPropertySet@0AFDBAC0 p#0 c#0 type="ListPrice" vt=3 value="[List
Price]>45"
    }
  }
}
```

```
}
```

Example of ExternalContext Input

```
CCFPropertySet@0013B958 p#11 c#0 type="Header" vt=3 value="2-47J4V"
```

```
{  
  p["Account Id"] = "";  
  p["City"] = "";  
  p["Currency Code"] = "USD";  
  p["State"] = "";  
  p["Eligibility Display Mode"] = "1";  
  p["Discount Percent"] = "";  
  p["Account Contracted Products Only Flag"] = "";  
  p["Exchange Date"] = "03/04/2005";  
  p["Account Type"] = "";  
  p["Postal Code"] = "";  
  p["Price List Id"] = "2-47J4M";  
}
```

Example of Output Arguments

```
CCFPropertySet@0013C1F0 p#0 c#1 type="" vt=0 value=""
```

```
{  
  c[0] CCFPropertySet@0C203838 p#4 c#1 type="Siebel Message" vt=0 value=""  
  {  
    p["MessageId"] = "2-3ZPA";  
    p["IntObjectName"] = "PDS Product Interface";  
    p["MessageType"] = "Integration Object";  
    p["IntObjectFormat"] = "Siebel Hierarchical";  
  
    c[0] CCFPropertySet@0BADEAEO p#0 c#2 type="ListOfProduct" vt=0 value=""  
    {  
      c[0] CCFPropertySet@0C1EDBC0 p#7 c#1 type="ListOfInternal Product" vt=0  
value=""  
      {  
        c[0] CCFPropertySet@0C1FA3C0 p#21 c#0 type="Internal Product" vt=0 value=""  
        {  
          p["PrePick"] = "Y";  
          p["Id"] = "2-47J3S";  
          p["Name2"] = "UANProduct1";  
        }  
      }  
    }  
  }  
}
```


Syntax

```
ErrCode AddFavoriteToQuote (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet & inputArgs	In	String: Favorite Name String: Quote Number
CCFPropertySet & outputArgs	Out	Hierarchy: SiebelMessage (Integration object "PSS Quote Interface")

Error Conditions

None.

DeleteQuote Method

Deletes a quote that matches the input.

Syntax

```
ErrCode DeleteQuote(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage (Integration object PDS Quote)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Example of Input Arguments

```
CCFPropertySet@0012D384 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@0BAEB900 p#4 c#1 type="Siebel Message" vt=0 value=""
  {
    p["MessageId"] = "2-3ZGU";
    p["MessageType"] = "Integration Object";
    p["IntObjectName"] = "PDS Quote";
    p["IntObjectFormat"] = "Siebel Hierarchi cal";
```

```

c[0] CCFPropertySet@0BACBEF0 p#0 c#1 type="ListofPDS Quote" vt=0 value=""
{
  c[0] CCFPropertySet@0BE2F288 p#23 c#1 type="Header" vt=0 value=""
  {
    p["Account Location"] = "";
    p["Opportunity Id"] = "";
    p["Id"] = "2-47Q9P";
    p["Revision"] = "1";
    p["Account Id"] = "";
    p["Status"] = "In Progress";
    p["Conflict Id"] = "0";
    p["Account"] = "";
    p["Contact Id"] = "";
    p["Currency Code"] = "USD";
    p["Discount"] = "";
    p["Updated"] = "02/11/2005 12:34:46";
    p["Primary Organization Id"] = "0-R9NH";
    p["Integration Id"] = "";
    p["End Date"] = "03/13/2005 00:00:00";
    p["Created"] = "02/11/2005 12:34:46";
    p["Active"] = "Y";
    p["Due Date"] = "02/12/2005 00:00:00";
    p["Quote Type"] = "Quotation";
    p["Name"] = "PDS Quote Test";
    p["Start Date"] = "02/11/2005 00:00:00";
    p["Quote Number"] = "2-47Q9P";
    p["Price List Id"] = "";

c[0] CCFPropertySet@0BDDC2E8 p#0 c#1 type="ListofLine Item" vt=0 value=""
{
  c[0] CCFPropertySet@0BBD5478 p#63 c#1 type="Line Item" vt=0 value=""
  {
    p["NRC CxTotal"] = "0";
    p["Parent Id"] = "";
    p["Cfg State Code"] = "New Item";
    p["Unit of Measure"] = "";

```

```
p["Volume Discount Item Id"] = "";
p["Id"] = "2-4709S";
p["Cfg Type"] = "";
p["Eligibility Reason"] = "";
p["Exclude Pricing Flag"] = "N";
p["Extended Quantity Requested"] = "1";
p["Asset Integration Id"] = "2-4709S";
p["Root Id"] = "2-4709S";
p["Conflict Id"] = "0";
p["Need Refresh"] = "Y";
p["Prod Prom Name"] = "";
p["Volume Discount Item"] = "";
p["Line Number"] = "1";
p["Product Id"] = "2-4706J";
p["Currency Code"] = "USD";
p["Smart Part Number"] = "";
p["Discount"] = "";
p["Prod Item Id"] = "";
p["Discount Percent"] = "";
p["Original List Price"] = "";
p["Updated"] = "02/11/2005 12:37:02";
p["Current Price"] = "";
p["Eligibility Status"] = "";
p["Port Item Id"] = "";
p["Prod Prom Id"] = "";
p["Has Generics Flag"] = "";
p["Inclusive Eligibility Flag"] = "N";
p["Post Pick CD"] = "";
p["Rollup Amount"] = "0";
p["Integration Id"] = "2-4709S";
p["Prod Prom Instance Id"] = "";
p["Forecastable Flag"] = "Y";
p["Prod Prom Rule Id"] = "";
p["Discount Source"] = "Manual ";
p["Effective To"] = "";
p["List Price"] = "";
p["Pricing Comments"] = "";
```



```

p["IntObjectName"] = "PDS Quote";
p["MessageType"] = "Integration Object";
p["IntObjectFormat"] = "Siebel Hierarchical";

c[0] CCFPropertySet@0BAB2950 p#0 c#1 type="ListOfPDS Quote" vt=0 value=""
{
    c[0] CCFPropertySet@0BF41DF8 p#0 c#0 type="Header" vt=0 value=""
}
}
}

```

Error Conditions

None

Help Method Syntax

ErrCode DOCOperator(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs, const SSstring& strMethod)

Help Method Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Quote)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage(Integration object PDS Quote)
const SSstring& strMethod	In	String: Method Name, available value could be DeleteQuote, DeleteOrder, DeleteQuoteItem, DeleteOrderItem, InsertQuote, Insert Order, InsertQuoteItem, Insert OrderItem, UpdateOrder UpdateOrderItem, UpdateOrderItem,

Help Method Error Conditions

IDS_ERR_ANIESALES_MISSING_SERVICE_NAME: The %1 user property is not defined in business service '%2'

SSAOMErrCannotCreateService. Unable to create the Business Service %1

InsertQuote Method

Insert a quote that is defined in input. If that quote already exists, the method updates the existing quote.

Syntax

```
ErrCode InsertQuote(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Quote)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

UpdateQuote Method

Update Quote a quote that matches the input by user key.

Syntax

```
ErrCode UpdateQuote(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Quote)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

DeleteQuoteItem Method

Deletes the quote line item that is defined in the input.

Syntax

```
ErrCode DeleteQuoteItem(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Quote)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

InsertQuoteItem Method

Inserts a quote line item that is defined in the input. If the quote line item already exists, the method updates the existing quote line item.

Syntax

```
ErrCode InsertQuoteItem(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Quote)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

UpdateQuoteItem Method

Updates an existing quote line item that is matched by user key and updated with value in the input.

Syntax

```
ErrCode UpdateQuoteItem(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Quote)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

DeleteOrder Method

Deletes the order that matches the input.

Syntax

```
ErrCode DeleteOrder(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Order)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Example of Input Arguments

```
CCFPropertySet@0012D384 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@0A6E4FE8 p#4 c#1 type="SiebelMessage" vt=0 value=""
  {
    p["MessageId"] = "42-1D9U";
    p["MessageType"] = "Integration Object";
  }
}
```

```
p["IntObjectName"] = "PDS Order";
p["IntObjectFormat"] = "Siebel Hierarchical";

c[0] CCFPropertySet@0ACADCC0 p#0 c#1 type="ListofPDS Order" vt=0 value=""
{
  c[0] CCFPropertySet@0A903FE8 p#17 c#1 type="Header" vt=0 value=""
  {
    p["Account Location"] = "";
    p["Id"] = "42-50SHP";
    p["Revision"] = "1";
    p["Account Id"] = "";
    p["Status"] = "Pending";
    p["Conflict Id"] = "0";
    p["Order Type"] = "Service Order";
    p["Account"] = "";
    p["Contact Id"] = "";
    p["Currency Code"] = "USD";
    p["Discount"] = "";
    p["Updated"] = "02/11/2005 13:54:39";
    p["Integration Id"] = "";
    p["Opty Id"] = "";
    p["Order Number"] = "PDS Order Item Test";
    p["Created"] = "02/11/2005 13:54:39";
    p["Price List Id"] = "";

c[0] CCFPropertySet@0A900550 p#0 c#1 type="ListofLine Item" vt=0 value=""
  {
    c[0] CCFPropertySet@0AB61530 p#62 c#1 type="Line Item" vt=0 value=""
    {
      p["NRC CxTotal"] = "0";
      p["Parent Id"] = "";
      p["Cfg State Code"] = "New Item";
      p["Volume Discount Item Id"] = "";
      p["Id"] = "42-50SHW";
      p["Cfg Type"] = "";
      p["Eligibility Reason"] = "";
      p["Exclude Pricing Flag"] = "N";
```

```
p["Extended Quantity Requested"] = "1";  
p["Asset Integration Id"] = "42-50SHW";  
p["Root Id"] = "42-50SHW";  
p["Conflict Id"] = "0";  
p["Need Refresh"] = "Y";  
p["Prod Prom Name"] = "";  
p["Volume Discount Item"] = "";  
p["Line Number"] = "1";  
p["Product Id"] = "42-50S1M";  
p["Currency Code"] = "USD";  
p["Smart Part Number"] = "";  
p["Discount"] = "";  
p["Prod Item Id"] = "";  
p["Discount Percent"] = "";  
p["Original List Price"] = "";  
p["Updated"] = "02/11/2005 13:56:09";  
p["Current Price"] = "";  
p["Eligibility Status"] = "";  
p["Port Item Id"] = "";  
p["Prod Prom Id"] = "";  
p["Has Generics Flag"] = "";  
p["Inclusive Eligibility Flag"] = "N";  
p["Integration Id"] = "42-50SHW";  
p["Post Pick CD"] = "";  
p["Prod Prom Instance Id"] = "";  
p["Rollup Amount"] = "0";  
p["Forecastable Flag"] = "";  
p["Prod Prom Rule Id"] = "";  
p["Discount Source"] = "Manual";  
p["List Price"] = "";  
p["Pricing Comments"] = "";  
p["Volume Upsell Item"] = "";  
p["Effective To"] = "";  
p["Unit Price"] = "";  
p["Price Type"] = "One-Time";  
p["Product Line Id"] = "No Match Row Id";  
p["Rollup Item Price"] = "0";
```

```
p["Volume Discount Id"] = "";
p["Created"] = "02/11/2005 13:54:50";
p["Due Date"] = "02/12/2005 00:00:00";
p["Effective From"] = "";
p["Prod Prom Source Id"] = "";
p["Discount Amount"] = "";
p["Exchange Date"] = "";
p["Item Price List Id"] = "";
p["Pre Pick CD"] = "";
p["Volume Upsell Message"] = "";
p["Configuration Model Id"] = "42-50S1M";
p["Name"] = "PDS Product";
p["Quantity"] = "1";
p["Action Code"] = "Add";
p["Price List Id"] = "";
p["MRC CxTotal"] = "0";
p["Volume Upsell Item Id"] = "";

c[0] CCFPropertySet@0A92EE38 p#0 c#0 type="ListOfXA" vt=0 value=""
}
}
}
}
}
```

Example of Output Arguments

```
CCFPropertySet@0012DA78 p#0 c#1 type="" vt=0 value=""
{
  c[0] CCFPropertySet@0AB9F028 p#4 c#1 type="Siebel Message" vt=0 value=""
  {
    p["MessageId"] = "42-1D9U";
    p["IntObjectName"] = "PDS Order";
    p["MessageType"] = "Integration Object";
    p["IntObjectFormat"] = "Siebel Hierarchical";

    c[0] CCFPropertySet@0AC32B10 p#0 c#1 type="ListOfPDS Order" vt=0 value=""
```



```

    {
      c[0] CCFPropertySet@0A63EB20 p#0 c#0 type="Header" vt=0 value=""
    }
  }
}

```

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

InsertOrder Method

Insert an order that is defined in the input. If the order already exists, the method updates the existing order.

Syntax

ErrCode InsertOrder(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy :SiebelMessage(Integration object PDS Order)
CCFPropertySet& outputArgs	Out	Hierarchy :SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

UpdateOrder Method

Updates an order that is matched with the input by user key.

Syntax

ErrCode UpdateOrder(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Order)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

DeleteOrderItem Method

Delete the order line item that is defined in the input.

Syntax

```
ErrCode DeleteOrderItem(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Order)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

InsertOrderItem Method

Inserts an order line item that is defined in the input. If the order line item already exists, the method updates the existing order line item.

Syntax

```
ErrCode InsertOrderItem(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Order)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

UpdateOrderItem Method

Updates the existing order item that is matched by user key and updated with the value in the input.

Syntax

```
ErrCode UpdateOrderItem(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	Hierarchy : SiebelMessage(Integration object PDS Order)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage

Error Conditions

None.

This method calls the help method described in [“DeleteQuote Method” on page 302](#).

GetActiveQuote Method

Finds the current active quote with input account Id, compound Product Number and Price List Id and returns this Quote. If it cannot find the quote, the method creates and returns a new quote.

Syntax

```
ErrCode GetActiveOrder(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs)
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	String: Account Id (optional) String: Compound Product Number (Optional) String: Price List Id (Optional)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage(Integration object PDS Quote)

Example of Input Arguments

```
CCFPropertySet@0012D370 p#4 c#0 type="" vt=0 value=""
{
    p["Account Id"] = "";
    p["ProcessName"] = "SIS OM Active Quote Sub-process";
    p["Compound Product Number"] = "1-R234";
    p["Price List Id"] = "1-D0D8";
}
```

Example of output Arguments

```
CCFPropertySet@0012DA78 p#0 c#1 type="" vt=0 value=""
{
    c[0] CCFPropertySet@0AD2BB48 p#4 c#1 type="Siebel Message" vt=0 value=""
    {
        p["MessageId"] = "2-3ZJM";
        p["IntObjectName"] = "PDS Quote";
        p["MessageType"] = "Integration Object";
        p["IntObjectFormat"] = "Siebel Hierarchical";

        c[0] CCFPropertySet@0AD85DA0 p#0 c#1 type="ListOfPDS Quote" vt=0 value=""
        {
            c[0] CCFPropertySet@0AAFC110 p#23 c#1 type="Header" vt=0 value=""
            {
                p["Account Location"] = "";
                p["Opportunity Id"] = "";
                p["Revision"] = "1";
                p["Id"] = "2-47QI3";
                p["Status"] = "In Progress";
            }
        }
    }
}
```

```
p["Account Id"] = "";
    p["Conflict Id"] = "0";
    p["Currency Code"] = "USD";
    p["Contact Id"] = "";
    p["Account"] = "";
    p["Discount"] = "";
    p["Primary Organization Id"] = "0-R9NH";
    p["Updated"] = "02/11/2005 13:16:32";
    p["Integration Id"] = "";
    p["End Date"] = "03/13/2005 00:00:00";
    p["Due Date"] = "02/12/2005 00:00:00";
    p["Active"] = "Y";
    p["Created"] = "02/11/2005 13:15:11";
    p["Quote Type"] = "Quotation";
    p["Quote Number"] = "2-47QI3";
    p["Start Date"] = "02/11/2005 00:00:00";
    p["Name"] = "2-47QI3";
    p["Price List Id"] = "1-D0D8";

    c[0] CCFPropertySet@0A98D8E8 p#0 c#0 type="ListOfLine Item" vt=0 value=""
  }
}
}
```

Error Conditions

None.

Help Method Syntax

```
ErrCode ActiveDOCOperator(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs,
const SSstring strMode)
```

Help Method Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	String: Account Id (optional) String: Compound Product Number (Optional) String: Price List Id (Optional)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage(Integration object PDS Quote)
const SSstring& strMode	In	String: Name help to get corresponding workflow, available value could be GetActiveQuote, GetActiveOrder, SetActiveQuote, SetActiveOrder,

Help Method Error Conditions

IDS_ERR_ANIESALES_MISSING_SERVICE_NAME: The '%1' user property is not defined in business service '%2'

SSAOMErrCannotCreateService: Unable to create the Business Service '%1'

SetActiveQuote Method

Finds the current active quote with input account Id, compound Product Number and Price List Id. If it can find a match, it returns this quote. If it cannot find a match, it creates a new quote, sets it as active quote, and return this quote.

Syntax

ErrCode SetActiveOrder(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs)

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	String: Account Id (optional) String: Compound Product Number (Optional) String: Price List Id (Optional)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage(Integration object PDS Quote)

This method calls the help method described in [“GetActiveQuote Method” on page 315](#).

GetActiveOrder Method

Finds the current active order with input account Id, compound Product Number and Price List Id. If it can find a match, it returns this order. If cannot find a match, it creates new order, sets it as the active order, and returns this order.

Syntax

```
ErrCode GetActiveOrder(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs)
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	String: Account Id (optional) String: Compound Product Number (Optional) String: Price List Id (Optional)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage(Integration object PDS Quote)

Example of Input Arguments

```
CCFPropertySet@0012D370 p#4 c#0 type="" vt=0 value=""
{
    p["Account Id"] = "";
    p["ProcessName"] = "SIS OM Active Order Sub-Process";
    p["Compound Product Number"] = "";
    p["Price List Id"] = "";
}
```

Example of Output Arguments

```
CCFPropertySet@0012DA78 p#0 c#1 type="" vt=0 value=""
{
    c[0] CCFPropertySet@0A98A6A8 p#4 c#1 type="SiebelMessage" vt=0 value=""
    {
        p["MessageId"] = "42-1DFE";
        p["IntObjectName"] = "PDS Order";
        p["MessageType"] = "Integration Object";
        p["IntObjectFormat"] = "Siebel Hierarchi cal ";
    }

    c[0] CCFPropertySet@0A9CD9C0 p#0 c#1 type="ListOfPDS Order" vt=0 value=""
```

```
{
  c[0] CCFPropertySet@0A97E488 p#17 c#1 type="Header" vt=0 value=""
  {
    p["Account Location"] = "";
    p["Revision"] = "1";
    p["Id"] = "42-50SNB";
    p["Status"] = "Pending";
    p["Account Id"] = "";
    p["Order Type"] = "Sales Order";
    p["Conflict Id"] = "0";
    p["Currency Code"] = "USD";
    p["Contact Id"] = "";
    p["Account"] = "";
    p["Discount"] = "";
    p["Updated"] = "02/11/2005 14:06:32";
    p["Integration Id"] = "";
    p["Order Number"] = "146-8435207";
    p["Opty Id"] = "";
    p["Created"] = "02/11/2005 14:06:32";
    p["Price List Id"] = "";

    c[0] CCFPropertySet@0A9F7E98 p#0 c#0 type="ListOfLine Item" vt=0 value=""
  }
}
}
```

Error Conditions

None.

This method calls the help method described in [“GetActiveQuote Method” on page 315](#).

SetActiveOrder Method

Finds current active order with input account Id, compound Product Number and Price List Id, and returns this order. If it cannot find a matching order, it creates and returns a new one.

Syntax

```
ErrCode SetActiveOrder(const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs)
```

Arguments

Argument	Type	Description
const CCFPropertySet& inputArgs	In	String: Account Id (optional) String: Compound Product Number (Optional) String: Price List Id (Optional)
CCFPropertySet& outputArgs	Out	Hierarchy : SiebelMessage(Integration object PDS Order)

Error Conditions

None.

This method calls the help method described in [“GetActiveQuote Method” on page 315](#).

Summary of Data Service API Methods and Sample Workflows

A set of sample workflows, whose names begin with PDS, are examples of how to call the Product Data Service API methods and how to parameterize inputs. Though these workflows are shipped with the product, they are meant as examples of how to create your own workflows that use the Product Data Service API, and they are not meant to be used directly.

The inputs and outputs of the Product Data Service API methods are all in the format of the Siebel property set, which can be converted to and from xml files using Siebel EAI. The hierarchy in the output property set is controlled by the Integration Object specified in the input Siebel message.

[Table 38](#) summarizes the Product Data Service APIs, the methods in each API, and the sample workflow that calls each method.

One of the sample workflows is described in [“PDS PublishCatalog Test Sample Workflow” on page 323](#). After reading this topic, examine the other sample workflows in the product to see how all of the methods are used.

Table 38. Data Service APIs, Methods, and Workflows

API	Method	Sample Workflow
Catalog API	Get Catalog	PDS GetCatalogs
	Get Catalog Categories	PDS GetCatalogCategories
	Get Category Products	PDS Get CatagoryProducts Test

Table 38. Data Service APIs, Methods, and Workflows

API	Method	Sample Workflow
	Get Products	PDS GetProducts Test
	Get Product Details	PDS Get Product Detail Test
	Publish Catalog	PDS PublishCatalog Test
	GetFavorites	PDS Get Template Test
	GetFavoriteItems	PDS Get Template Item Test
Product Details API	Get Product Attribute Domain	PDS GetProductAttributeDomain
	Get Related Products	PDS GetRelatedProducts
	Get Related Promotions	PDS GetRelatedPromotions
	Get Product Children	PDS GetProductChildren
Search API	Get Search Options	PDS GetSearchOptions Test
	Get Search Parameters	PDS GetSearchParameters Test
	Execute Search	PDS ExecuteSearch Test PDS ExecuteSearch External Test
Add Favorite API	AddFavoriteToQuote	PDS Add Favorite To Quote
	AddFavoriteToOrder	PDS Add Favorite To Order
	AddFavoriteItemToQuote	PDS Add Favorite Item To Quote
	AddFavoriteItemToOrder	PDS Add Favorite Item To Order
Quote / Order API	Insert Order	PDS Insert Order Test
	Insert Order Item	PDS Insert Order Item Test
	Insert Quote	PDS Insert Quote Test
	Insert Quote Item	PDS Insert Quote Item Test
	Set Active Order	PDS Set Active Order Test
	Set Active Quote	PDS Set Active Quote Test
	Update Order	PDS Update Order Test
	Update Order Item	PDS Update Order Item Test
	Update Quote	PDS Update Quote Test
	Update Quote Item	PDS Update Quote Item Test
	Delete Order	PDS Delete Order Test
	Delete Order Item	PDS Delete Order Item Test
	Delete Quote	PDS Delete Quote Test
	Delete Quote Item	PDS Delete Quote Item Test

Table 38. Data Service APIs, Methods, and Workflows

API	Method	Sample Workflow
	Get Active Order	PDS Get Active Order Test
	Get Active Quote	PDS Get Active Quote Test

PDS PublishCatalog Test Sample Workflow

This sample workflow illustrates how to use the PublishCatalog method of the Product Data Service API.

This workflow is shown in [Figure 54](#).

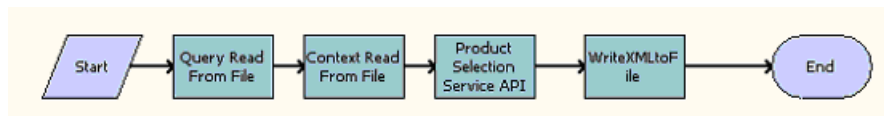


Figure 54. PSS Add Product & Service

Workflow Description. This workflow does the following:

- **Query Read From File.** Reads the contents from the xml file and converts to SiebelMessage propertyset, which may include integration object for EAI, searchspec that would be applied on the following query and so on. A sample input file is the following:

```
<?xml version="1.0" encoding="UTF-8" ?>

  <?Siebel -Property-Set EscapeNames="false"?>

  - <Siebel Message MessageId="" IntObjectName="PDS Publish Catalog Interface"
MessageTypes="Integration Object" IntObjectFormat="Siebel Hierarchical">

    - <ListOfPublishCatalog>

<ProductCatalog searchspec="EXISTS ([Channel Partner] Like 'UANPartner1')"/>

      </ListOfPublishCatalog>

    </Siebel Message>
```

- **Context Read From File.** Reads the contents from the context xml file and converts to context propertyset. A sample context file is the following:

```
<?xml version="1.0" encoding="UTF-8" ?>

  <?Siebel -Property-Set EscapeNames="false"?>

    <Context BusObjName="Quote" BusCompName="Quote" SignalMode="Quote"
ContextRowId="2-47J4V" />
```

- **Product Selection Service API.** Calls the PublishCatalog method of the PDS Product Data Service. The input arguments SiebelMessage and Context are from the output of the previous two steps.
- **WriteXMLtoFile.** Converts the output PropertySet of the previous step into xml format and writes to the result file.

Product Versioned Object Data Import and Export Business Service Reference

This business service allows you to move versioned object definitions between databases. It supports the following versioned object definitions:

- **Product Attribute Definition.** ISS_ATTR_DEF. Uses the Integration Object used ISS Attr Def ImpExp.
- **Product Class Definition.** ISS_CLASS_DEF. Uses the Integration Object ISS Class Def ImpExp.
- **Product Definition.** ISS_PROD_DEF. Uses the Integration Object ISS Prod Def ImpExp.
- **Signal Definition.** ISS_SIGNAL. Uses the Integration Object ISS Signal ImpExp IntObj.
- **Variable Map Definition.** ISS_VAR_MAP. Uses the Integration Object ISS Variable ImpExp IntObj"

It also allows you to fix S_PROD_INT records created with EIM processes, making them usable by the ISS framework by creating the minimum set of necessary records needed for versioned objects.

For more information about importing and exporting versioned objects, see *Product Administration Guide*.

It includes the following methods:

- Data Export Methods:
 - [“ExportVOD Method” on page 325](#)
 - [“ExportFullVOD Method” on page 327](#)
- Data Import Method:
 - [“ImportVOD Method” on page 328](#)
- Application Deployment Manager (ADM) specific Methods:
 - [“ADMValidate Method” on page 329](#)
 - [“ADMPreview Method” on page 330](#)
 - [“ADMExport Method” on page 331](#)
 - [“ADMImport Method” on page 332](#)
- Helper Methods:
 - [“ReleaseSingleObject Method” on page 332](#)
 - [“ReleaseJwsObjects Method” on page 333](#)
 - [“Post_EIM_Upgrade Method” on page 334](#)

ExportVOD Method

Exports stand-alone objects from a Joint Workspace project or a single VOD Definition, based on supplied parameter values. Determines a set of objects to be exported based on input, and produces a list of EAI property sets, corresponding to all of them. The resulting list of PropSets is wrapped in a single parent property set and returned in the output argument.

Syntax

API:

```
ErrCode DoInvokeMethod (const SSchar* pMethodName, const CCFPropertySet& inputArgs,  
CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode ExportAlgorithm (const SSchar* pMethodName, const CCFPropertySet& inputArgs,  
CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: ExportVOD
const CCFPropertySet& inputArgs	In	Depending on the set of properties, supplies the starting information about export content
CCFPropertySet& outputArgs	Out	Contains the resulting Property Set wrapping around multiple Siebel messages

Details of Input Arguments: combination 1

Property	Value	Description
RootObjectType	ISS_JWS	Indicates that we are exporting content of a Joint Workspace Project
RootObjectId	Row Id of JWS project	

If this combination of values is passed to the method, it considers each entry in the content of the JWS project as a Root object. The resulting combined property set will include all of them.

Details of Input Arguments: combination 2

Property	Value	Description
RootObjectType	ISS_ATTR_DEF or ISS_CLASS_DEF or ISS_PROD_DEF or ISS_SIGNAL or ISS_VAR_MAP	Indicates, that we are exporting content of Joint Workspace Project
VODObjectNum	Root's S_VOD.OBJECT_NUM	Points to VOD to be exported
VODVersion	version number	Points to the version number to be used in export

If this combination of values is passed to the method, it considers a single entry as a Root object. The resulting property set will include only this object (as a child property set).

Error Conditions

Might return generic error codes from Object Manager, From EAI or from service. These codes are mainly about input format, for example, that a parameter is missing parameter.

ExportFullVOD Method

Similar to the ExportVOD Method. In addition, for ISS_PROD_DEF and ISS_CLASS_DEF structures, for each root object, runs a recursive algorithm to collect a list of dependencies, a set of self-contained objects.

This set includes: parent class definition, attribute definitions used to create local attributes; relationship base class definition; product definitions referred in relationship domain as sub-products.

Resulting combined list of objects is used as a set of objects to be exported in a same way as in ExportVOD.

Syntax

API:

```
ErrCode DoInvokeMethod (const SSchar* pMethodName, const CCFPropertySet& inputArgs,
    CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode ExportAlgorithm (const SSchar* pMethodName, const CCFPropertySet& inputArgs,
    CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	method name: ExportFullVOD
const CCFPropertySet& inputArgs	In	depending on the set of properties, supplies the starting information about export content
CCFPropertySet& outputArgs	Out	contains Resulting Property Set wrapping around multiple Siebel messages

Details of Input Arguments: combination 1

Property	Value	Description
RootObjectType	ISS_JWS	Indicates that we are exporting content of a Joint Workspace Project
RootObjectId	Row Id of JWS project	

If this combination of values is passed to the method, it considers each entry in the content of the JWS project as a Root object. The resulting combined property set will include all of them.

Details of Input Arguments: combination 2

Property	Value	Description
RootObjectType	ISS_ATTR_DEF or ISS_CLASS_DEF or ISS_PROD_DEF or ISS_SIGNAL or ISS_VAR_MAP	Indicates, that we are exporting content of Joint Workspace Project
VODObjectNum	Root's S_VOD.OBJECT_NUM	Points to VOD to be exported
VODVersion	version number	Points to the version number to be used in export

If this combination of values is passed to the method, it considers a single entry as a Root object. The resulting property set will include only this object (as a child property set).

Error Conditions

Might return generic error codes from Object Manager, From EAI or from service. These codes are mainly about input format, for example, that a parameter is missing parameter.

ImportVOD Method

Decomposes the content of the input argument property set into individual objects, locates appropriate VOD in the target database by using Object Num value as a key, locks the object, and overwrites Workspace version content with data supplied in the property set. Successfully imported object references are added to the content of JWS project specified in the input parameters.

Conflict resolution is done in the following way:

- For the same Object Num, the target's VOD Name wins.
- For different Object Num and the same Name (VOD name or Product Name), the target name remains unchanged, a new object name is appended with Object Num in parenthesis.

All conflicts are reported in string format in the output property set's parameter Warning.

Syntax

API:

```
ErrCode DoI nvokeMethod (const SSchar* pMethodName, const CCFPropertySet& i nputArgs, CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode I mportA l gori thm(const CCFPropertySet& i nputArgs, CCFPropertySet& outputArgs);
```


Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: ExportFullVOD
const CCFPropertySet& inputArgs	In	Wrapper around Siebel messages, containing VOD structures
CCFPropertySet& outputArgs	Out	In case of conflicts contains a report string in the Warning property

Details of Input Arguments

Property	Value	Description
RootObjectType	ISS_JWS	Indicates that we are exporting content of a Joint Workspace Project
RootObjectId	JWS project Name	Name of JWS Project to be used for import

Error Conditions

Might return generic error codes from Object Manager, From EAI or from service. These codes are mainly about input format, for example, that a parameter is missing parameter.

ADMValidate Method

Given an ADM project item's deployment filter, determines if it is valid. Performs the following validation checks:

- Checks that the deployment filter has a joint workspace name specified.
- Checks that the given joint workspace exists.
- Checks that if the [Full] export method is given, that it is Y or N.

Syntax

API:

```
ErrCode DoInvokeMethod (const SSchar* pMethodName, const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode ADMValidate (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: ADMValidate
const CCFPropertySet& inputArgs	In	Wrapper around Siebel messages, containing VOD structures
CCFPropertySet& outputArgs	Out	none

Details of Input Arguments

Property	Value	Description
EAI Search Spec	ADM deployment filter	ADM deployment filter

ADMPreview Method

Given an ADM session's deployment filter (such as an EAI Search Specification), returns a valid search specification for ISS Joint Workspace View. Basically, this function parses out the [Full] parameter in the deployment filter.

Syntax

API:

```
ErrCode DoInvokeMethod (const SSchar* pMethodName, const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode ADMPreview (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: ADMPreview
const CCFPropertySet& inputArgs	In	Unparsed filter
CCFPropertySet& outputArgs	Out	Search specification

Details of Input Arguments

Property	Value	Description
EAI Search Spec	ADM deployment filter	ADM deployment filter

Details of Output Arguments

Property	Value	Description
EAI Search Spec	Search Specification	Search Specification for ISS Joint Workspace View

ADMExport Method

Given an input argument property set with a valid SessionId, which represents the Row_Id of the deployed ADM session, exports the joint workspace specified in the deployment filter of the ADM session. Export is done through a call to ExportAlgorithm. The deployment filter also specifies whether to do a full structure export. Returns an output argument property set with the exported VOD property set, along with additional bookkeeping information (JSW name, Status, Reason)

Syntax

API:

```
ErrCode DoInvokeMethod (const SSchar* pMethodName, const CCFPropertySet& inputArgs,
    CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode ADMExport (const CCFPropertySet& inputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: ADMExport
const CCFPropertySet& inputArgs	In	ADM Information
CCFPropertySet& outputArgs	Out	Same as ExportVOD with additional properties

Details of Input Arguments

Property	Value	Description
SessionId	Row_Id	Row_Id of the deployed ADM session

Details of Output Arguments

Property	Value	Description
JWSName	Name of JWS Project	Name of JWS project to be used when importing prop set on other side
Status	Processed or Failed	Result of operation
Reason	String	In case of failure contains the cause of failure

ADMImport Method

Given an input argument property set, which contains the exported joint workspace data as a single child property set, import the data using ImportAlgorithm.

Syntax

API:

```
ErrCode DoI nvokeMethod (const SSchar* pMethodName, const CCFPropertySet& i nputArgs,  
CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode ADMImport (const CCFPropertySet& i nputArgs, CCFPropertySet& outputArgs);
```

Arguments

Same as ["ImportVOD Method" on page 328](#).

ReleaseSingleObject Method

This helper method releases a particular object. If the object is locked by another user, the method generates an error.

Syntax

API:

```
ErrCode DoI nvokeMethod (const SSchar* pMethodName, const CCFPropertySet& i nputArgs,  
CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode Rel easeSi ngl eObj ect (const CCFPropertySet& i nputArgs, CCFPropertySet&  
outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: ADMExport
const CCFPropertySet& i nputArgs	In	information for releasing an object
CCFPropertySet& outputArgs	Out	

Details of Input Arguments

Property	Value	Description
ReleaseDT	Release date in canonical format (user time)	Release date in canonical format (user time)
RootObjectType	ISS_ATTR_DEF or ISS_CLASS_DEF or ISS_PROD_DEF or ISS_SIGNAL or ISS_VAR_MAP	Type of the object (LIC value from ISS_VOD_TYPE mlov)
RootObjectId	Id of the object	S_VOD.OBJECT_NUM or S_PROD_INT.CFG_MODEL_ID

ReleaseJwsObjects Method

Release all objects contained in a particular Joint Workspace. The Release date of all objects is determined based on the value of S_ISS_JWS.EFF_RELLEASE_DT field; if this field is empty, objects are released as of current moment

If one of the objects is locked by another user, the method generates an error.

Syntax

API:

```
ErrCode DoI nvokeMethod (const SSchar* pMethodName, const CCFPropertySet& i nputArgs, CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode ReleaseJwsObjects (const CCFPropertySet& i nputArgs, CCFPropertySet& outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: ReleaseJwsObjects
const CCFPropertySet& i nputArgs	In	Information for releasing JWS content
CCFPropertySet& outputArgs	Out	

Details of Input Arguments

Property	Value	Description
RootObjectType	ISS_JWS	Keyword
RootObjectName	Name of the JWS record	Name of the JWS record

Post_EIM_Upgrade Method

This method locates all records in S_PROD_INT with missing or broken association with the S_VOD record and creates the necessary supporting structure for versioning.

Depending on input property set parameters method can operate in 2 different modes: standard or staging mode

For each identified entry in S_PROD_INT, it does the following:

- Creates an appropriate header record (S_VOD)
- Creates an appropriate non-released definition record (S_ISS_OBJ_DEF)
- Creates an appropriate non-released version record (S_VOD_VER)

In Staging mode, it continues by doing the following:

- Registers newly created header record in the supplied Joint Workspace

In Standard behavior mode, it continues by doing the following:

- Creates appropriate released definition record (S_ISS_OBJ_DEF)
- Creates appropriate released version record will be created (S_VOD_VER), with current time as Start Time of the version

In both modes, if you set the property ReportOnly = TRUE, the upgrade does not occur and the method only generates a report of orphan records. In this case, the output property set's property Warning contains a report of errors or list of orphans.

Syntax

API:

```
ErrCode DoInvokeMethod (const SSchar* pMethodName, const CCFPropertySet& inputArgs,  
CCFPropertySet& outputArgs)
```

Internal Method:

```
ErrCode Post_EIM_Upgrade (const CCFPropertySet& inputArgs, CCFPropertySet&  
outputArgs);
```

Arguments

Argument	Type	Description
const SSchar* pMethodName	In	Method name: Post_EIM_Upgrade
const CCFPropertySet& inputArgs	In	Information for releasing JWS content
CCFPropertySet& outputArgs	Out	Reporting problems

Details of Input Arguments (standard mode)

Property	Value	Description
ReportOnly	TRUE or FALSE	Optional parameter triggering output that is only a report, with no upgrade.

Details of Input Arguments (staging mode)

Property	Value	Description
RootObjectType	ISS_JWS	Keyword triggering staging mode
RootObjectName	Name of JWS project	Name of existing JWS project
ReportOnly	TRUE or FALSE	Optional parameter triggering output that is only a report, with no upgrade.

Details of Output Arguments

Property	Value	Description
Warning	String	Report of errors or list of orphans records if ReportOnly is on.

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