Siebel CRM

Assignment Manager Administration Guide

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Preface

This guide covers Siebel Assignment Manager.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle
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http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

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http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing
impaired.

Related Documents

For more information, see "Technical Documentation" on page 2-2.

Conventions

The following text conventions are used in this document:

Convention	Meaning
italic	Italic type indicates book titles, emphasis, a defined term, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, code in examples, text that appears on the screen, or text that you enter.

1

What's New in This Release

This chapter describes new product features.

> **Note:** Siebel Innovation Pack 2016 is a continuation of the Siebel 8.1/8.2 release.

What's New in Siebel Assignment Manager Administration Guide, Siebel Innovation Pack 2016

No new features have been added to this guide for this release. This guide has been updated to reflect only product name changes.

What's New in Siebel Assignment Manager Administration Guide, Siebel Innovation Pack 2014

No new features have been added to this guide for this release. This guide has been updated to reflect only product name changes.

2

Finding and Using Siebel Assignment Manager Information

This chapter covers how to find and use information in *Siebel Assignment Manager Administration Guide* and in other sources relevant to Oracle's Siebel Assignment Manager. It includes the following topics:

- "How to Use the Siebel Assignment Manager Administration Guide" on page 2-1
- "Important Siebel Assignment Manager Resources" on page 2-2
- "Information on Siebel Assignment Manager Seed Data" on page 2-3

How to Use the Siebel Assignment Manager Administration Guide

This guide provides information necessary to configure, administer, and implement Siebel Assignment Manager. Chapters are organized in a way that allows users to move throughout the guide for various tasks. Use Table 2–1 as a guideline to determine which chapters to review and familiarize yourself with before using Assignment Manager.

Table 2–1   Siebel Assignment Manager Administration Guide Organization

Chapter or Appendix	Administrator	Developer
Chapter 1, "What's New in This Release"	Yes	Yes
Chapter 2, "Finding and Using Siebel Assignment Manager Information"	Yes	Yes
Chapter 4, "Overview of Siebel Assignment Manager"	Yes	Yes
Chapter 3, "Planning Your Siebel Assignment Manager Implementation"	Yes	Yes
Chapter 5, "Assignment Rule Administration"	Yes	No
Chapter 6, "Basic Configuration for Siebel Assignment Manager"	No	Yes
Chapter 7, "Working with Dynamic Candidates"	Yes	Yes
Chapter 8, "Assignment Rule Administration for Delegated Assignment"	Yes	No
Chapter 9, "Running Siebel Assignment Manager"	Yes	No
Chapter 10, "Advanced Siebel Assignment Manager Configuration"	No	Yes
Chapter 11, "Availability-Based Assignment"	Yes	Yes

Table 2–1 (Cont.) Siebel Assignment Manager Administration Guide Organization

Chapter or Appendix	Administrator	Developer
Chapter 12, "Siebel Assignment Manager Load Splitter Configuration"	Yes	No
Appendix A, "Troubleshooting: Siebel Assignment Manager Error Messages"	Yes	No

Important Siebel Assignment Manager Resources

Several server processes for Siebel Business Applications contribute to Siebel Assignment Manager functionality. The resources described in this topic provide additional information relevant to Assignment Manager.

Technical Documentation

The following Siebel documentation should be used as additional references when using Assignment Manager with other Siebel Server processes and Siebel Business Applications product modules:

- *Siebel Business Process Framework: Workflow Guide* for information about business processes and workflows.

- *Siebel Object Types Reference* for descriptions of and usage comments for assignment object properties.

- *Using Siebel Tools* for information about how to modify standard Siebel objects and create new objects to meet your organization's business requirements, and for information about how to migrate customizations from the development environment to the production environment.

- Siebel deployment documentation, including:

  – *Siebel Deployment Planning Guide* to familiarize yourself with the basics of the underlying Siebel Business Applications architecture.

  – *Siebel Installation Guide* for the operating system you are using for information about installing and configuring the Siebel CRM environment.

  – *Siebel System Administration Guide* for details on how to administer, maintain, and expand your Siebel servers.

  – *Configuring Siebel Business Applications* for information about configuring Siebel Business Applications using Siebel Tools.

  – *Siebel System Monitoring and Diagnostics Guide*.

  – *Going Live with Siebel Business Applications* for information about how to migrate customizations from the development environment to the production environment.

  – *Siebel Security Guide* for information about built-in seed data in the enterprise database, such as employee, position, and organization records.

  – *Siebel Performance Tuning Guide* for information about tuning and monitoring specific areas of the Siebel Business Applications architecture and infrastructure, such as the Siebel Server infrastructure and Siebel Workflow.

- *Siebel Data Model Reference* on My Oracle Support for information about how data used by Siebel Business Applications is stored in a standard relational DBMS such as Oracle Database, IBM DB2, or Microsoft SQL Server.

This reference also defines some of the data integrity constraints validated by Siebel Business Applications. Use this reference for running limited-scope queries and managing processes like call scripting.

- *Siebel eScript Language Reference* for information about writing scripts to extend Assignment Manager functionality.

- *Siebel SmartScript Administration Guide* for information about using Siebel SmartScript to trigger assignments.

Oracle Technology Network and My Oracle Support

Oracle Global Customer Support Web sites provide search-engine access to alerts, bulletins, troubleshooting information, topics on the Siebel Bookshelf, and other important information.

> **Note:** The Siebel Bookshelf is available on Oracle Technology Network (OTN) and Oracle Software Delivery Cloud. It might also be installed locally on your intranet or on a network location.

- System requirements and supported platform certifications are available from the Certifications tab on My Oracle Support. For more information, see 1492194.1 (Article ID) on My Oracle Support.

- *Siebel Release Notes* on My Oracle Support. The most current information on known product anomalies and workarounds and any late-breaking information that *Siebel Assignment Manager Administration Guide* may not yet contain. Release Notes are categorized as a Readme Doc Type on My Oracle Support.

- **Bulletin documents.** Important information on specific Assignment Manager issues. Documents formerly published as Siebel Technical Notes are categorized as a Bulletin Doc Type on My Oracle Support. Documents of particular importance include:

  - Article ID 476985.1, formerly published as Siebel Technical Note 436.

  - Article ID 477360.1, formerly published as Siebel Technical Note 527.

- **How To documents.** Information on various Assignment Manager topics. Documents formerly published as Siebel FAQs are categorized as a How To Doc Type on My Oracle Support. Documents of particular importance include:

  - Article ID 475577.1, formerly published as Siebel FAQ 1004.

  - Article ID 476384.1, formerly published as Siebel FAQ 1629.

  - Article ID 476619.1, formerly published as Siebel FAQ 1762.

  - Article ID 478127.1, formerly published as Siebel FAQ 2202.

- **Alerts.** Time-critical information on key product behaviors and issues. Alerts are located on My Oracle Support.

Information on Siebel Assignment Manager Seed Data

Siebel Business Applications include a sample database that contains example data of various kinds and that you can use in demonstrating, evaluating, or experimenting with the Siebel Mobile Web Client and Siebel Tools. For more information about the sample database, see the *Siebel Installation Guide* for the operating system you are using.

The enterprise database for your Siebel Business Applications contains some built-in seed data, such as employee, position, and organization records. You can use this seed data for training or testing, or as templates for the real data that you enter. For more information about seed data, including descriptions of seed data records, see *Siebel Security Guide*.

3

Planning Your Siebel Assignment Manager Implementation

This chapter provides guidelines for planning your Siebel Assignment Manager deployment and scenarios for various types of implementation. It includes the following topics:

- "Guidelines for Planning Your Siebel Assignment Manager Implementation" on page 3-1
- "Planning Your Siebel Assignment Manager Deployment" on page 3-2
- "Guidelines for Creating Assignment Rules" on page 3-2
- "Planning Optimal Assignment Rules" on page 3-3
- "Scenarios for Using Siebel Assignment Manager" on page 3-4

Guidelines for Planning Your Siebel Assignment Manager Implementation

This topic provides high-level guidelines for planning your Siebel Assignment Manager implementation.

Typically, business or functional teams verify and confirm the requirements before assignment administrators begin planning assignment rule creation. The requirements include:

- Make sure that all the current business requirements and data routing (by way of Assignment Manager) is captured for the deployment.

- When applicable, define strategies to leverage the existing implementation when additional organizations decide to use Assignment Manager in the future.

  For example, your current deployment might only include telesales, marketing, and customer care users, but in the future you might want to include other users, such as those for quality assurance, email response, and so on.

- Identify the business requirements and map those requirements to Assignment Manager features, such as assignment rule groups, rule sequencing, exclusivity, scoring, multitiered assignment, workload distribution, dynamic candidates, delegated assignment, and so on.

- Map Assignment Manager deployment modes.

  For example, your deployment mapping might include assigning service requests interactively, assigning opportunities dynamically, assigning accounts and assets using batch mode, assigning contacts using batch contact denormalization, and so on.

It is recommended that assignment administrators develop operational plans based on business requirements and the frequency of assignment using Assignment Manager features, such as load splitter configuration, reporting mode, and so on.

Planning Your Siebel Assignment Manager Deployment

This topic provides a high-level overview for planning your Siebel Assignment Manager deployment. Investing appropriate time in analyzing the incoming data and loading data appropriately for the first time can reduce performance and other problems moving forward.

Use the following points to help plan your deployment:

■ Develop a migration path from an external source to Siebel Assignment Manager and, if using territory management, then also carefully plan import of external alignment rules.

> **Note:** This task is particularly important if your implementation has mobile users.

■ Use assignment rule groups to manage large numbers of rules.

■ Use rule sequencing to prioritize rules by order of importance.

This feature can be helpful for Assignment Manager newly imported from an external system, because you can execute batch assignment against just the newly imported rules.

■ Use server key mappings to run multiple instances of Assignment Manager with different groups of rules loaded.

■ Create custom criteria for date fields (called date criteria).

Date criteria allow you to specify additional selectivity while assigning particular objects, such as creation date, expiration date, and so on.

■ If your assignment rules are static (that is, less frequently changing), then consider using dynamic assignment instead of batch assignment.

■ Identify opportunities where you can reduce assignment rules, such as:

– Reusing assignment rules across objects

– Using skills

– Setting up dynamic candidates

For more information about how to reduce assignment rules, see "Planning Optimal Assignment Rules" on page 3-3.

Guidelines for Creating Assignment Rules

To use Siebel Assignment Manager effectively, assignment administrators (AAs) must develop and document a clear set of strategies that are consistently applied by Assignment Manager or system administrators.

For each assignment object, consider how to develop assignment rules that:

■ Optimally match the attributes of assignment objects to criteria values of the assignment rules.

This approach is commonly used for traditional territory assignment where territories are managed exclusively through assignment administration. Employees, positions, or organizations associated with these rules are potential assignees. Sales organizations typically use this method.

- Optimally match the attributes of assignment objects to employee skills.

  Expertise is managed using employee, position, or organization skills. Service organizations typically use this method.

- Reflect a blend of the attributes outlined in the two methods previously described.

  For example, sales organizations can benefit from assignment rules using employee skills as well as territory rules.

Planning Optimal Assignment Rules

In general, the fewer assignment rules, the better. When you use fewer assignment rules, you achieve the following long-term gains:

- **Reduce maintenance.** The assignment administrator (AA) has fewer rules to manage, thus reducing time spent on checking quality of assignment rules.

- **Scalability.** When new organizations or divisions require Assignment Manager capability, there is no need to rewrite the existing rules to accommodate the new requirements.

- **Reduce system resources.** Assignment Manager, like other processing applications, is resource intensive. By reducing the number of assignment rules, the amount of system resources required are minimized including database, Siebel Server, and the time window for territory alignments.

- **Enhance performance.** Assignment processing and throughput is increased when there are fewer rules because the Assignment Manager engine has a limited dataset to work on.

For normalization purposes, use the following guidelines to optimize your assignment rules:

- Avoid duplication of assignment rules across objects.

  For example, an account rule and a professional rule might have the same position assigned (within the same ZIP Code, or other postal code). In this case, you can collapse these two assignment rules into a single rule.

- For custom assignment criteria with similar values across multiple objects, build a single criteria so that you can consolidate assignment rules.

- Consolidate positions across multiple assignment rules.

  After assignment rules are created, determine the top 10 positions used in assignment rules. If one or more positions are used in more than 90% of the assignment rules, then you might want to consider alternate paths.

With a skills model, consider using the built-in Assignment Manager skills feature. Although it is typically used within a Call Center implementation, this feature can also be leveraged for a sales implementation.

> **Note:** Although it is recommended that you keep your assignment rules to a minimum, you must continually weigh the advantages of ease of administration with loss of performance as they apply to your particular deployment.

Examples for Optimizing Assignment Rules

Use the following examples to assist you in determining the number of assignment rules for your implementation.

Sales Example

A telecommunications sales company is planning their Assignment Manager implementation based on the following data:

- There are 1,200 potential territories for the geographic and product lines served.

- There are 600 sales people working these territories.

Ideally, this company would define no more than 600 assignment rules, which is the lower of the two numbers. However, if this company plans to use additional Assignment Manager features, such as dynamic candidates, scoring, skills, and so on, then the company might consider reducing its rule count even further.

Service Example

An appliance services company is planning their Assignment Manager implementation based on the following data:

- There are 100 potential geographic territories for their product line and different service products.

  The product line includes refrigerators, washing machines, air conditioning units, and so on. The services the company provides include: preventive maintenance, extended warranty coverage, and so on.

- There are 1,600 field technicians working with customers in these territories.

Ideally, this company would define no more than 100 assignment rules, which is the lower of the two numbers. However, if this company plans to use additional Assignment Manager features, such as dynamic candidates, scoring, skills, and so on, the company might consider reducing its rule count even further.

In summary, when you create assignment rules, identify the logical territories and the people participating in these territories, and then determine how you can best optimize your Assignment Manager deployment.

Scenarios for Using Siebel Assignment Manager

Several scenarios are provided as examples of how you might use Siebel Assignment Manager. Your company might follow a different process according to its business requirements.

Scenario for Using Assignment Manager in Sales Organizations

This scenario gives one example of how you can use Assignment Manager in a sales organization. You might use Assignment Manager differently, depending on your business model.

Sales organizations typically have to distribute opportunities and accounts to the proper people within the organization. Assignment of sales opportunities must take place quickly so that sales representatives can respond to potential revenue-generating opportunities. Information must also be readily available to salespeople to close the maximum number of sales possible.

Assignments in sales organizations are commonly made to positions responsible for a territory. Mobile salespeople, who are not connected to a network, can share information and work as a collaborative sales force on sales opportunities. Sales organizations can therefore use the talents of their salespeople within their entire organization.

Siebel Assignment Manager allows you to create territories for positions using a wide variety of criteria. By assigning objects to positions, you can have one sales representative inherit the opportunities, accounts, and contacts from another sales representative by reassigning the employee responsible for a specific position.

After you have created the territories using assignment criteria, a major territory realignment can negatively affect your system resources. If the realignment is large, Assignment Manager might create a volume of transactions for Mobile Web Clients, which increases synchronization time drastically. To avoid this problem, you can run a database extract server task (DbXtract) again and have the Mobile Web Clients initialize their local databases. Because the time required to run a database extract server task for multiple clients can be significant, try to coordinate territory realignments with database extracts to occur during a time of low system utilization.

Because sales organizations typically distribute their accounts and opportunities based on territories, create sales assignment rules based on these territories.

For more information about:

- Territory alignments, see *Siebel Territory Management Guide*.

- Database extracts, see *Siebel Remote and Replication Manager Administration Guide*.

- Running server tasks, see *Siebel System Administration Guide*.

Scenario for Using Assignment Manager in Service Organizations

This scenario gives one example of how you can use Assignment Manager in a service organization. You might use Assignment Manager differently, depending on your business model.

In a service organization, service requests can often be resolved by the first customer service representative (CSR) who services the customer. However, when the request cannot be resolved, or when the service request is logged through the Internet, ownership must be transferred to a service representative who possesses the expertise to handle the request.

In this environment, it becomes critical to assign employees with the proper expertise and skills to service requests. Therefore, assign employees to objects because some employees possess specific skills that are different from those of other CSRs or field service engineers. When service representatives are on vacation, are promoted, or assume different responsibilities, work assigned to these employees must be reassigned based on the skills and workloads of other employees in the service organization.

Scenario for Using Assignment Manager in Marketing Organizations

This scenario gives one example of how you can use Assignment Manager in a marketing organization. You might use Assignment Manager differently, depending on your business model.

In a marketing organization, you want to route responses from a new product campaign appropriately to the telesales team responsible for handling the campaign. In this case, the assignment administrator creates assignment rules using the Campaign assignment object, with Product and Workload criteria, to make sure that there is a fair distribution of leads to telesales personnel.

4

Overview of Siebel Assignment Manager

This chapter provides an overview of Siebel Assignment Manager concepts and functionality. It includes the following topics:

- "Siebel Assignment Manager Terminology" on page 4-1
- "Assignment Concepts" on page 4-3
- "Essential Building Blocks of Siebel Assignment Manager" on page 4-6
- "Optional Building Blocks of Siebel Assignment Manager" on page 4-11
- "Siebel Assignment Manager Operating Modes" on page 4-13
- "Specialized Siebel Assignment Manager Features" on page 4-14
- "Modes for Processing Assignment Rules" on page 4-15

Siebel Assignment Manager Terminology

Siebel Assignment Manager uses different terminology than what you might be accustomed to in standard business terminology. Table 4–1 compares some of these terms and describes how they differ from standard business terminology and what they represent in the context of the Assignment Manager application. Familiarize yourself with these terms before planning and creating your assignment rules.

Table 4–1   Differences Between Siebel Assignment Manager and Standard Business Terminology

Business Term	Siebel Assignment Manager Term	Description
Territories	Assignment Rules	In standard business terminology, a *territory* is a collection of accounts, contacts, and or assets that are managed by a team of positions. Usually a territory is based on a geographic area: either a collection of postal codes or geographic zones.
		In Siebel Assignment Manager, an *assignment rule* is a collection of logical business boundaries. These business boundaries include:
		■ **Geographic.** ZIP Code or other postal code, Province, City, State, Country, and so on.
		■ **Non-geographic.** Named Accounts, Industries, Products and Product Lines, Revenue, Sales Stage, Lead Quality, Service Request Area, Service Request Subarea, and so on.
Territories (continued)	Assignment Rules (continued)	You can also enforce additional business rules using assignment rules. For example, you can define a rule so that a specific account manager manages a particular account and the account's related opportunities.
		Note: The word territory is used in other places in the GUI, where it is not related to the assignment territory features described in this guide. For example, the terms described in this table are not the same as the terms used with the Siebel Territory Management module. See also *Siebel Territory Management Guide*.
Territory Conditions	Assignment Criteria	In standard business terminology, *territory conditions* constrain the accounts, contacts, and assets that can be assigned.
		In Siebel Assignment Manager, *assignment criteria* enforce business conditions when applied to assignment rules. An assignment rule can have one or more assignment criteria.
		For example, if a sales representative's territory is Northern California, but excludes City Y and Z for Products A, B, and C, then there are three territory conditions (assignment criteria) that define the sales representative's territory. The three conditions are:
		■ State, City, or ZIP Code (to identify Northern California).
		■ City Y and City Z (for exclusion).
		■ Products A, B, and C.

Table 4–1 (Cont.) Differences Between Siebel Assignment Manager and Standard Business Terminology

Business Term	Siebel Assignment Manager Term	Description
Territory Condition Values	Assignment Criteria Values	In standard business terminology, *territory condition values* are applied to territory conditions to further constrain the accounts, contacts, and assets that can be assigned.
		In Siebel Assignment Manager, *assignment criteria values* are applied to a specific assignment criterion for a particular business condition. For example:
		■ A ZIP Code assignment criterion could have the following criteria values: 94401, 94402, 94403, or 94406.
		■ A service request assignment criterion could have the following criteria values: CD-ROM, 401K Account, Billing, or so on.
Business Entity	Assignment Object	In standard business terminology, *business entities* can be Accounts, Opportunities, Contacts, Sales Leads, Orders, Campaigns, Service Requests, Trouble Tickets, Activities, and so on. The business representatives for these entities include field service agents, telesales representatives, account executives, and so on.
		In Siebel Assignment Manager, business entities are known as *assignment objects*. An assignment rule is associated with one or more assignment objects.
Territory Managers and Territory Teams	Assignment Candidates	In standard business terminology, *territory managers* and *territory teams* are generic terms used mostly in sales organizations.
		For a given business boundary, territory managers and their teams manage accounts, opportunities, contacts, or other business entities (or a combination of any or all of these). They are associated with a particular sales business entity because they satisfy or qualify for the business conditions enforced by their organizations. Such business entities might be Account, Opportunity, Contact, Partner, and so on.
		In Siebel Assignment Manager, *assignment candidates* apply not only to sales entities but to service entities as well. Service objects (entities) include Service Request, Product Defect, and so on.
		For sales organizations, candidates are positions or organizations. For example, a territory for a sales representative might be Northern California, with the exclusion of City Y and City Z for Products A, B, and C.
		For service organizations, candidates are employees or organizations. For example, a territory for a field service installation technician might be City A and City B.

Assignment Concepts

Siebel Assignment Manager routes business entities and work items to the most appropriate candidates by enforcing business rules set by sales, service, and marketing organizations. Assignment Manager does this by matching candidates (that is, employees, positions, and organizations) to predefined and user-configurable assignment objects. To assign the most qualified candidate to each object, Assignment Manager applies assignment rules that you define to each candidate.

To define assignment rules, you select:

■ Objects to which each assignment rule applies.

■ Rule groups to which each assignment rule belongs.

■ Candidates for each assignment rule. Candidates can be persons (employees or positions), organizations, or both.

- Criteria for each assignment rule.

- (Optional) Values for assignment criteria.

For rules that match attributes of an assignment object with attributes of candidates, you can optionally define:

- Skills to match assignment rules to candidate attributes.

  A *skill* is a generic row-level attribute that qualifies a person, organization, or assignment object row. For example, if an employee speaks English and Spanish, then language is the skill he or she possesses, and English and Spanish are the *skill items*. Employee, position, and organization skills are used to store skills possessed; the skill tables for objects are used to store skills required. Assignment Manager uses skill tables to do skill matching by comparing skills on the object with the skills of an employee, position, or organization to determine if they pass the rule.

- Expertise levels to weigh skill scores (to measure competency in a certain area for each candidate).

- Scores for each assignment rule, criterion, and value and a personal score for each individual candidate.

  For example:

  – In a sales organization, you can create an assignment rule that scores positions (candidates) based on territory definitions (criteria) for an opportunity (object).

  – In a service organization, you can create an assignment rule that scores employees (candidates) based on product expertise (criteria) for a service request or product defect (object).

  Using the sum of scores at the assignment rule level, Assignment Manager assigns the best candidate for each rule and the best candidates for the object.

- Defining workload distribution rules to balance work among the candidates.

  Define workload distribution rules if you want to distribute the workload rules evenly between the candidates or if your business logic includes limits on the maximum amount of work that can be handled at one time.

You can also customize the way Assignment Manager makes assignments by:

- Defining how attributes are matched by:

  – Using different comparison methods

  – Making criteria required (compulsory) or optional

  – Using inclusion and exclusion methods

  – Using workload distribution rules

  – Using wildcard values

- Defining how assignment rules are matched by using:

  – Assignment rule groups

  – Assignment rule sequencing

- Defining how candidates are assigned based on person and organization relationships using multitiered assignment.

- Creating and configuring your own entities, including:

- Assignment objects

- Assignment criteria

- Assignment attributes

- Workload distribution rules to make assignments based on current workload

- Dynamic candidates and candidate teams that are assigned dynamically depending on the object row assigned

■ Running Assignment Manager in different operating modes to process assignments:

- Interactively in real time

- Dynamically when object rows are created or attributes on object rows are changed by connected or mobile users

- Periodically assigning objects in batches

■ Running Assignment Manager against reporting tables to test the desired behavior of assignment rules and rule groups before running against production tables.

■ Checking availability before assigning employees to objects.

■ Defining which servers are used to run selected groups of rules.

■ Delegating the task of creating business logic through rules and criteria to others.

Summary of Assignment Manager Customization Tasks

Table 4–2 summarizes the Assignment Manager customization tasks and where you can find more information.

Table 4–2   Assignment Manager Customization Tasks

Task	For More Information, See …
Define assignment rules	"Process of Defining Assignment Rules" on page 5-3
Match attributes of an assignment object with attributes of candidates	■ "About Assignment Skills, Expertise Codes, and Weighting Factors" on page 5-54 ■ "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58
Defining workload distribution rules to balance work among the candidates	■ "How Siebel Assignment Manager Balances Workload Among Candidates" on page 5-63 ■ "Process of Defining Assignment Workload" on page 5-64
Define how attributes are matched	Chapter 5, "Assignment Rule Administration"
Define how assignment rules are matched using rule groups and rule sequencing	■ "Creating Assignment Rule Groups" on page 5-5 ■ "Adding a Sequence Number to Assignment Rules" on page 5-16
Define how candidates are assigned based on person and organization relationships using multitiered assignment	"Configuring Assignment Objects for Multitiered Assignment" on page 10-24

Table 4–2   (Cont.) Assignment Manager Customization Tasks

Task	For More Information, See …
Create and configure your own entities	■ Chapter 5, "Assignment Rule Administration" ■ Chapter 6, "Basic Configuration for Siebel Assignment Manager" ■ Chapter 7, "Working with Dynamic Candidates" ■ Chapter 10, "Advanced Siebel Assignment Manager Configuration"
Run Assignment Manager in different operating modes to process assignments	Chapter 9, "Running Siebel Assignment Manager"
Running what-if analysis on possible assignments before making actual assignments	"About Running Assignment Manager in Reporting Mode" on page 9-34
Define which servers are used to run selected groups of rules	"How Siebel Assignment Manager Uses Server Key Mappings to Load Rules to a Particular Siebel Server" on page 5-20
Delegate the task of creating business logic through rules and criteria to others	Chapter 8, "Assignment Rule Administration for Delegated Assignment"
Check availability before assigning employees to objects	Chapter 11, "Availability-Based Assignment"

Essential Building Blocks of Siebel Assignment Manager

Siebel Assignment Manager consists of several essential building blocks. This topic provides a brief description of these building blocks, each of which is described in greater detail in other chapters throughout this guide.

Assignment Rules

An assignment rule is a logical collection of business conditions, and Assignment Manager evaluates potential candidates based on these rules. For example, assume that the U.S. Western Sales Representative position is responsible for sales of Products A, B, and C in ZIP Codes 94401, 94402, and 94403.

In Siebel Assignment Manager, this example translates as follows:

■ An assignment rule exists for the U.S. Western region.

■ The assignment rule candidate is the U.S. Western Sales Representative.

■ One criterion for the assignment rule includes only those accounts with ZIP Codes 94401, 94402, and 94403.

■ Another criterion for the assignment rule includes only products in the Product A, B, or C product line.

Siebel Assignment Manager uses assignment rules to match assignment objects to candidates. Multiple assignment rules can be active for each assignment object. An assignment rule can also apply to multiple objects.

Assignment rules use criteria and scores to rate candidates and select potential assignees. Candidates that qualify for an assignment rule have the assignment rule score added to their total score. For example, if you have an assignment rule with the Score field set to 20 points, then each candidate that meets the rule's criteria has 20 points applied to his or her total score.

Each assignment rule also has a candidate passing score value. After the total score for a candidate is calculated, Assignment Manager compares this score with the candidate passing score for the assignment rule. If a candidate's score is less than the candidate passing score, then the candidate does not meet the criteria and is not assigned.

Assignment Objects

In Siebel Assignment Manager, assignment objects represent assignment entities to which candidates are matched based on assignment rules. The concept is analogous to business objects in Siebel Business Applications. You must associate every assignment rule with at least one assignment object.

Assignment Criteria and Criteria Values

Assignment criteria are the fundamental building blocks for assignment rules. You translate the assignment business logic that you determine into assignment criteria. Assignment rules use criteria to determine which candidates qualify as potential assignees. Criteria also determine which assignment rule is evaluated in assigning an object. An assignment rule can include none (zero), one, or many criteria.

An assignment criterion is usually defined along with criteria values. For example, assume that you want an assignment requirement that employees speak German. When you create your assignment rule, you select the predefined Language rule criterion and German (or DEU, which is the language code for German) as the criterion value.

You can have several criteria values for the same criterion. For example, assume that a Language rule criterion uses four languages as criteria values: German, Spanish, Italian, and French. Assuming that this assignment rule's candidate passing score is 10 points, and that each language is worth 5 points, the candidates for this assignment rule that possess expertise in at least two of these languages qualify for the assignment rule.

Assignment Manager provides predefined criteria values that are available dynamically based upon the criterion you select, or you can create your own criteria values using Siebel Tools. For example, if you want activities of type Repair or Break-fix handled by a certain employee, then create a rule criterion called Activity Type with two criteria values, Repair and Break-fix. For more information about creating new criteria with values, see "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

Assignment Rule Groups

Assignment Manager allows you to group assignment rules, splitting them up by business function or other categories. An assignment rule group can include multiple assignment rules, however, an assignment rule can belong to only one rule group. You *must* associate each assignment rule with a rule group.

> **Tip:** If you do not want to create your own rule groups, then you can associate all assignment rules to the Default Rule Group. The Default Rule Group is provided in the Assignment Manager seed data.

You can split rules and execute a subset of rules at any time. Typically, you want to split rules into rule groups based on business logic.

For example, you can have one set of business rules for assigning repair activities and another set of rules for assigning similar, but different, activities, such as appointment

activities. In this situation, you could create two rule groups with five rules each. Then, when assigning a particular activity, you specify the rule group that you want Assignment Manager to process. Only the five rules from the rule group that you specified are processed during assignment of the activity, for example, the five repair activity rules.

Assignment Candidates

In Siebel Assignment Manager, candidates represent the people who or organizations that are evaluated as potential assignees for objects. Depending on the assignment rule that you use, and the object to which a candidate is assigned, candidates can be positions, employees, or organizations, and can be assigned as individuals or as members of a team. Alternatively, you can associate all people or all organizations defined in the database as candidates for a rule. You can also specify a particular candidate or one member of a team as the primary assignee on a specific assignment rule.

Static Versus Dynamic Candidates

When processing rules, Assignment Manager determines potential candidates either statically or dynamically. Assignment Manager determines candidates statically in these cases:

- When candidates are explicitly added to an assignment rule.

- When the All People or All Organizations flags are checked on an assignment rule.

- When qualifying candidates based on their skills.

Static candidates do not change as Assignment Manager processes rules (unless you intentionally associate other, different candidates) whereas dynamic candidates are identified during assignment.

Dynamic candidates can come from different, but related business entities. For example, Assignment Manager can assign an activity related to an asset and then dynamically generate a candidate list from the asset team.

Assignment Manager determines dynamic candidates as potential assignees for objects from an attribute on the object row. For example, assume that you have an activity that is associated to an asset. The asset, in turn, is associated with a list of employees. You might want Assignment Manager to treat the list of employees associated with the asset as potential candidates for assignment of that activity. In this situation, the potential candidates are *dynamic candidates* because they are not statically associated with an assignment rule; instead, they are identified during assignment.

Also note that, if the activity is later associated with a different asset that is associated with a different set of employees, then the list of potential candidates for the same activity can change during the next assignment.

In summary, the following points explain how static candidate assignment differs from dynamic candidate assignment:

- For static candidate assignment, candidates for each assignment rule are loaded when the server processes start up.

- For dynamic candidate assignment, candidates are retrieved from related business entities (attribute team table) with respect to the object row during an assignment.

Employee Candidates

Employees represent candidates distinguished by their skills and product expertise and are typically used as candidates in service organizations. For example, a service

organization would want to assign employees with the proper skills and expertise to objects, because these employees possess specific skills that are related to the service request or activity. Assignment Manager can also take into account a specific employee's work schedule, calendar, and regional schedule when determining assignments by creating rules based on an employee's availability. For more information about availability-based assignment, see Chapter 11, "Availability-Based Assignment."

Position Candidates

Positions represent candidates distinguished by their job functions and are typically used as candidates in sales organizations. For example, a sales organization would want to assign positions to objects, because these positions are responsible for a region or territory.

By assigning positions to objects, you can have one sales representative inherit the opportunities, accounts, and contacts from another representative by reassigning the employee responsible for a specific position.

> **Note:** An assignment object can be either position-based or employee-based, but not both. Assignment Manager does not support assignment of employees and positions to the same assignment object.

Organization Candidates

An organization represents a group of positions that has limited visibility to particular application data. For example, your company can create separate and distinct organizations to distribute specific information to organizational groups both inside and outside of your enterprise. Both internal and external users are granted access only to the information that the organization wants them to be able to see (such as accounts, opportunities, and contacts) and to the data that these users need to see (such as price lists, products, and literature).

By assigning objects to organizations, you can maintain better security and promote proper business practices by controlling data access and visibility between different organizations. For example, you can limit your distributors' data access by giving them visibility to product information, but restricting their visibility to price lists for the products. To restrict price list visibility, you can create a separate organization for your distributors that does not have access to the price list data. In this case, the price lists are not available to your distributors even if they are assigned to the products.

Some objects allow the assignment of a single organization, whereas other objects allow the assignment of multiple organizations to the same object. For more information about which candidates can be assigned to each of the predefined assignment objects, see Table 4–3.

Teams Versus Individual Candidates

A team represents a group of employees or positions. Assigning a team allows you to assign a group of individuals that possess various skills or job functions to a particular object.

In sales organizations, teams are typically assigned to objects. For example, you can assign a sales representative and a sales consultant to an opportunity. Alternately, you can assign a team of sales professionals (such as two district representatives, a regional manager, and a sales engineer) to work a single, large sales opportunity.

An individual represents a single employee or a position. Assigning individuals allows you to assign exclusive ownership to an individual who possesses a specific skill or expertise for a particular object.

In service organizations, individuals are typically assigned to objects. For example, you can assign a customer service representative with expertise in disk drives to all service requests that are marked for this area.

Assignment objects can be team-based, individual-based, or both. That is, the same assignment object can be team-based for employees and individual-based for organizations.

Table 4–3 shows which candidates can be assigned to some of the predefined assignment objects. This table also shows which assignment objects are restricted to a single assignee, and assignment objects that are capable of incorporating a team of assignees. *S* indicates the ability to allow only single owner assignments; *M* indicates the ability to allow multiple owners or team assignments.

Table 4–3   Individual Versus Team Assignments Listed by Assignment Object

Assignment Object	Employee Candidate	Position Candidate	Organization Candidate
Account	Not applicable	M	M
Activity	M	Not applicable	Not applicable
Campaign	Not applicable	M	M
Campaign Contact	Not applicable	S	S
Contact	Not applicable	M	M
Opportunity	Not applicable	M	M
Product Defect	S	Not applicable	Not applicable
Project	M	Not applicable	M
Project Team	M	Not applicable	Not applicable
Service Request	S	Not applicable	M
TM Account	Not applicable	M	Not applicable
TM Asset	Not applicable	M	Not applicable
TM Contact	Not applicable	M	Not applicable

> **Note:**   If you want to assign different candidates, such as assign accounts to employees or assign projects to positions, then you have to configure the assignment object using Siebel Tools. For more information about this, see "Creating Assignment Objects" on page 10-2.

Primary Assignees

A *primary assignee* (also referred to as a *primary*) on an assignment rule represents the candidate (employee, position, or organization) that is assigned as the primary owner, or main owner, of an assignment object if the candidate passes the criteria for that object. This assigned primary is usually the highest-scoring assignee from the highest-scoring assignment rule.

Alternatively, you can configure Assignment Manager to assign one member of a team as the primary assignee. In addition, you can manually assign a particular candidate as the primary assignee on a specific assignment rule.

> **Note:** For assignments that allow only single assignees, the single assignee also becomes the primary assignee.

Optional Building Blocks of Siebel Assignment Manager

Siebel Assignment Manager provides several optional building blocks that you can use with your assignment rules. This topic provides a brief description of these optional building blocks, each of which is described in greater detail in other chapters throughout this guide.

Assignment Rule Sequencing

When you assign sequence numbers to assignment rules, Assignment Manager evaluates those rules in ascending order of the sequence numbers. Assignment rule sequencing provides a means for you to prioritize the rules that apply to any given assignment object by order of importance, thereby limiting the number of rules that Assignment Manager processes for assignment. For example, you might want to run Assignment Manager only for your higher priority rules first. If those rules pass, then stop processing additional rules, because candidates are already successfully matched.

Assignment Workload

Assignment Manager allows you to apply predefined workload distribution rules to assignment rules to balance workload among candidates. Alternatively, you can create and apply your own rules for this purpose. Candidates that have workloads in excess of the maximum workload are eliminated from the assignment rule. This workload distribution prevents employees from being overloaded. Each assignment rule can include multiple workload criteria.

Assignment Scoring

You can add scores to assignment rules to rate candidates and select potential assignees. Candidates that qualify for an assignment rule have the assignment rule score added to their total score. For example, if you have an assignment rule with the Score field set to 20 points, then each candidate that meets the rule's criteria has 20 points applied to his or her total score.

You can also assign a candidate passing score value to each assignment rule. After the total score for a candidate is calculated, Assignment Manager compares this score with the candidate passing score for the assignment rule. If a candidate's score is less than the candidate passing score, then the candidate does not meet the criteria and is not assigned.

Alternatively, you can add scores for the same candidate across multiple assignment rules.

Assignment Skills, Expertise Codes, and Weighting Factors

Skills are a special criteria type that you can use to minimize the number of assignment rules. One assignment rule can match different candidates to various objects based on the object characteristics and candidate skills.

Skills are the type of criteria that you use most frequently for implementing assignments in a customer service environment. For optimal assignment, you determine the criteria that you want to evaluate for each candidate to make sure that the candidate possesses the proper skills to handle the task.

The Siebel Business Applications provide predefined skills, and you enable and configure those skills at the criteria level using Siebel Tools. However, you can also create new skills using Siebel Tools. After you enable skills, Assignment Manager matches skills based on an assignment criteria comparison method in the same manner in which attributes are matched. Assignment Manager then applies scores and other filters to find the best candidate after a match has been made.

You can apply expertise codes that define an employee's expertise level for a particular skill with weighting factors to weigh skill scores to measure competency in a certain area for each candidate. Assignment Manager uses expertise codes to rank skills to find the most suitable candidate. For example, assume that you do not want to assign a novice to a service request that requires an expert. By using expertise codes, you can prevent assigning objects to underqualified candidates.

Server Key Mappings

Server key mappings allow you to define multiple rule groups that you want a specific server to load and process, thus allowing you to use different servers for different business purposes. Server key mappings use an internal key-based routing mechanism to route requests to a particular server; however, this routing is done in the background and is not apparent. You can also specify multiple servers to load the same rule group.

Assignment Policies

Assignment policies are specialized workflow policies used to create dynamic assignment triggers. Assignment policies allow you to define policies that can act as triggers to execute a workflow process, such as dynamic assignment. A policy consists of one or more policy conditions. When the policy conditions are met, the policy action is executed. Assignment Manager provides preconfigured policies for each of the predefined assignment objects. To use assignment policies, you have to first activate them using Siebel Tools.

Denormalization

Denormalization is an assignment mode in which Assignment Manager introduces duplicate data to facilitate specific visibility requirements. In Siebel Assignment Manager, you use the prebuilt contact denormalization and product denormalization features to denormalize positions or organizations.

Email Activity Assignment

Assignment Manager can assign or route inbound emails created by Siebel Email Response to an appropriate agent. The Communications Server, that is, the Communications Inbound Manager server component, works in conjunction with Siebel Email Response to create inbound emails as activities.

To assign inbound emails, the assignment administrator creates assignment rules and criteria for the Activity assignment object. For more information about routing inbound emails, see *Siebel Email Administration Guide* (Workflow section). See also *Siebel CTI Administration Guide*.

Multitiered Assignment

By default, Assignment Manager assigns people and organizations independently. Multitiered assignment allows Assignment Manager to consider the relationship between people and organizations when determining the proper assignment. This feature requires configuration of assignment objects using Siebel Tools before implementing.

Availability-Based Assignment

Assignment rules can be created for employee-based objects using availability-based assignment, which allows Assignment Manager to check an employee's calendar and to consider the employee's availability when determining assignment eligibility. This feature requires advanced configuration of assignment objects using Siebel Tools before implementing.

Siebel Assignment Manager Operating Modes

This topic explains the various operating modes available for running Siebel Assignment Manager. Depending on the operating mode, you invoke Assignment Manager using the server administration views, using the Server Manager command-line interface (srvrmgr) to run server component jobs, or both.

About the Assignment Manager Operating Modes

There are three assignment operating modes:

- Batch assignment
- Dynamic assignment
- Interactive assignment

Batch Assignment

You can use batch assignment to assign multiple records in a single batch. For example, you can assign orders that are created during the business day at the end of business using batch assignment so that the assignments are made before start of business the next morning. Another example of batch assignment is when you change assignment rule definitions: you can use batch assignment to reassign objects using the new assignment rules. Batch assignment is optimized to process a large number of items efficiently.

Dynamic Assignment

Dynamic assignment performs assignments automatically as other users and server programs create records or modify existing records. For example, if a user creates a new opportunity or changes the revenue amount or the address of an opportunity, then dynamic assignment automatically detects the change and invokes Assignment Manager to reassign the opportunity to a different territory or sales team, as determined by the assignment rule.

Interactive Assignment

Interactive assignment allows end users to invoke Assignment Manager by a click of a button or menu selection, review the list of assignees generated by Assignment Manager, and then accept or override the assignees.

> **Note:**   Mobile users running Assignment Manager in interactive mode do not make real-time assignments, because interactive assignments made by mobile users are not applied to the server until they resynchronize.

About Different Modes of Running Assignment Manager

You can choose one of two ways (default mode or rule group mode) to run Assignment Manager, depending on which rules that you want processed.

- **Default mode.** In this mode, all active rules for all rule groups are loaded and processed. By default, interactive and dynamic assignment run in default mode. However, you can configure interactive assignment to run in rule group mode.

- **Rule group mode.** In this mode, you can process rules of one particular rule group when you assign an object row.

Table 4–4 shows the supported operating modes and server components used for running each mode. The components are Assignment Manager (AsgnSrvr), Batch Assignment (AsgnBatch), Generate Triggers (GenTrig), and Workflow Monitor Agent (WorkMon).

Table 4–4   Operating Modes for Running Assignment Manager

Operating Mode	Description	Mode		Server Component Used		
		Default	Rule Group	AsgnSrvr	AsgnBatch	GenTrig or WorkMon
Batch	Assigns a set of rows in a single request.	No	Yes	No	Yes	No
Dynamic	Uses database triggers to assigns objects as soon as they are created or when they are modified.	Yes	No	No	No	Yes
Interactive	Uses the Assignment Manager engine to filter out certain candidates (in the evaluation phase), outputs a list of potential candidates to the user, and then the user manually assigns.	Yes	Yes	Yes	No	No

Specialized Siebel Assignment Manager Features

Siebel Assignment Manager provides several specialized features. This topic provides a brief description of these specialized features, each of which is described in greater detail in other chapters throughout this guide.

Mobile Assignment

Mobile assignment allows mobile users to make interactive and dynamic assignments. Changes to a Mobile Web Client's local database are queued and are applied to the server the next time the mobile user synchronizes.

Assignment Manager automatically performs interactive assignments made by the mobile user after synchronization. Changes to assignment rules and objects are updated, and affected objects are reassigned dynamically.

> **Note:**   Mobile users running Assignment Manager in interactive mode do not make real-time assignments, because interactive assignments made by mobile users are not applied to the server until they resynchronize.

Mobile users might also be assigned records on the server and will retrieve those assignments when they synchronize.

Delegated Assignment

Delegated assignment provides assignment administrators (AAs) the ability to delegate rule administration to other administrators and partners to route leads, activities, accounts (and other assignment objects) to employees or positions. These delegates are known as *delegated administrators* (DAs). A DA can, in turn, delegate assignment rule administration to others.

This hierarchical assignment feature is well-suited to sales organizations and organizations that work closely with partners.

Assignment Load Splitter Configuration

The assignment load splitter configuration feature provides assignment administrators (AAs) a tool for performing batch assignment for a significant number of objects. It eliminates the need for AAs to plan and implement complex load distribution logic.

You can configure Assignment Manager to automatically split objects for processing into separate batches and submit those batch requests to multiple servers. This type of configuration balances the task load across multiple servers, which in turn improves processing performance.

Modes for Processing Assignment Rules

Siebel Assignment Manager supports two modes for processing assignment rules: the reporting mode and the production mode. By default, Assignment Manager processes assignment rules in the production mode.

Reporting Mode

Assignment Manager provides a special mode for processing assignment rules that allows assignment administrators (AAs) to run and preview trial assignments for what-if analysis before making actual assignments. The reporting mode stages the simulated assignments into a set of temporary results tables, known as *reporting tables*, rather than into the actual database tables. After this staging process is complete, AAs review the results and, when satisfied, apply those changes by executing Assignment Manager in production mode.

Production Mode

The production mode is the mode in which actual assignments are made. Assignments are written into the team tables (account/position or contact/position tables) in the Siebel Enterprise database.

For example, an AA might want to perform trial runs to confirm new assignment rules in the reporting mode. After accomplishing satisfactory results, the AA can then apply the same changes in the production mode.

> **Note:** Reporting assignment and regular assignment are mutually
> exclusive operations that you can perform in any combination: that is,
> in reporting mode alone, production mode alone, or both. Irrespective
> of whether reporting is turned on or off, Assignment Manager can
> write evaluation results to an actual assignment table.

5

Assignment Rule Administration

This chapter explains how to define assignment rules for Siebel Assignment Manager. The tasks explained in this chapter are for assignment administrators (AAs), and as such, the procedures are documented using the Administration - Assignment screen and views.

> **Note:** Even if you intend to use predefined assignment objects, you must define assignment rules by completing the tasks in this chapter.

This chapter includes the following topics:

- "About the Siebel Assignment Manager Administration Views" on page 5-1
- "About Assignment Rule Administration" on page 5-3
- "Exporting and Importing Assignment-Related Data" on page 5-24
- "Assignment Methodology and Examples for Creating Assignment Rules" on page 5-30
- "About Assignment Criteria" on page 5-41
- "Process of Adding Criteria and Values to Assignment Rules" on page 5-47
- "About Assignment Skills, Expertise Codes, and Weighting Factors" on page 5-54
- "Scenario for Using Assignment Skills" on page 5-56
- "Associating Skills with Employees, Positions, and Organizations" on page 5-56
- "Example of Using Assignment Skills in Assignment Rules" on page 5-58
- "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58
- "How Siebel Assignment Manager Balances Workload Among Candidates" on page 5-63
- "Process of Defining Assignment Workload" on page 5-64
- "About Assignment Policies" on page 5-68

About the Siebel Assignment Manager Administration Views

Siebel Assignment Manager functionality is administered with two administration screens, Administration - Assignment and Administration - Delegated Assignment.

Administration - Assignment Screen

Assignment administrators (AAs) use the assignment administration views (in the Administration - Assignment screen) to create and administer assignment rules, and perform the following tasks:

- Create assignment rules

- Associate assignment rules to appropriate rule groups (or the Default Rule Group)

- Apply criteria to assignment rules

- Apply business-defined candidates to assignment rules

Territory List View

Within the Administration - Assignment screen, the Territories link displays the Territory List view, which was originally designed for sales organizations. However, this view functions exactly the same as the Assignment Rules List and Criteria views. The Territory List view allows users to define their sales territories. Some of the assignment options covered in this guide do not appear in the Territory List view.

> **Note:** For more information about territory views, create a service request (SR) on My Oracle Support. Alternatively, you can phone Oracle Global Customer Support directly to create a service request or get a status update on your current SR. Support phone numbers are listed on My Oracle Support.

> **Tip:** The Territory List view has no relationship with the Territory Management screen and views. The data shown for each differs and how the data is used differs.

Administration - Delegated Assignment Screen

Delegated administrators (DAs) use the delegated assignment administration views (in the Administration - Delegated Assignment screen) to inherit and refine assignment rules and perform the following tasks:

- Inherit assignment rules and further specify assignment rule behavior and candidates.

- Choose to delegate rule responsibility by creating child rule groups and making rules inheritable to the owners of those child rule groups.

- DAs lower in the hierarchy can then inherit the refined rules, modify them, or choose to further delegate.

> **Note:** Delegation and inheritance can go many levels deep within a single hierarchy.

In the Administration - Delegated Assignment screen, rule group owners have visibility for their rule groups (and subtrees). AAs also have visibility for rules only in their organizations but have unrestricted access to rule administration within those organizations.

For more information about delegated assignment, see Chapter 8, "Assignment Rule Administration for Delegated Assignment."

About Assignment Rule Administration

This topic contains the following information:

- "Before Defining Assignment Rules" on page 5-3
- "Process of Defining Assignment Rules" on page 5-3
- "Creating Assignment Rule Groups" on page 5-5
- "About Some of the Assignment Rule Fields" on page 5-7
- "Creating Assignment Rules" on page 5-10
- "Adding Employees, Positions, and Organizations to Assignment Rules" on page 5-13
- "Adding a Sequence Number to Assignment Rules" on page 5-16
- "How Siebel Assignment Manager Determines the Sequence in Which Rules Are Evaluated" on page 5-16
- "Defining Assignment Rules to Use a Single Criterion for Multiple Objects" on page 5-18
- "Choosing a Candidate as the Primary Assignee" on page 5-19
- "Defining Server Key Mappings for Assignment Rule Groups" on page 5-20
- "How Siebel Assignment Manager Uses Server Key Mappings to Load Rules to a Particular Siebel Server" on page 5-20
- "Preparing to Release Assignment Rules" on page 5-22
- "Releasing Assignment Rules" on page 5-22
- "Migrating Assignment-Related Data" on page 5-23

Before Defining Assignment Rules

This topic is part of "About Assignment Rule Administration" on page 5-3.

There are several preparatory tasks to perform before using Siebel Assignment Manager and creating your assignment rules.

Before defining your assignment rules:

1. Review the Assignment Manager planning guidelines and best practice information. See Chapter 3, "Planning Your Siebel Assignment Manager Implementation."

2. Have a good understanding of how Assignment Manager assigns candidates to assignment objects. See "Assignment Methodology and Examples for Creating Assignment Rules" on page 5-30.

3. Modify assignment object property settings to suit your business requirements using Siebel Tools. See "Configuring Assignment Object Properties" on page 6-8.

Process of Defining Assignment Rules

This topic is part of "About Assignment Rule Administration" on page 5-3.

The process of defining assignment rules varies depending on how much you reconfigure or customize Siebel Assignment Manager. This topic provides a typical process flow for defining and releasing assignment rules that you can use as a guide. Your process might differ, depending on your business model.

Figure 5–1 provides a sample process flow for defining and releasing assignment rules.

Figure 5–1   Sample Process Flow for Defining and Releasing Assignment Rules
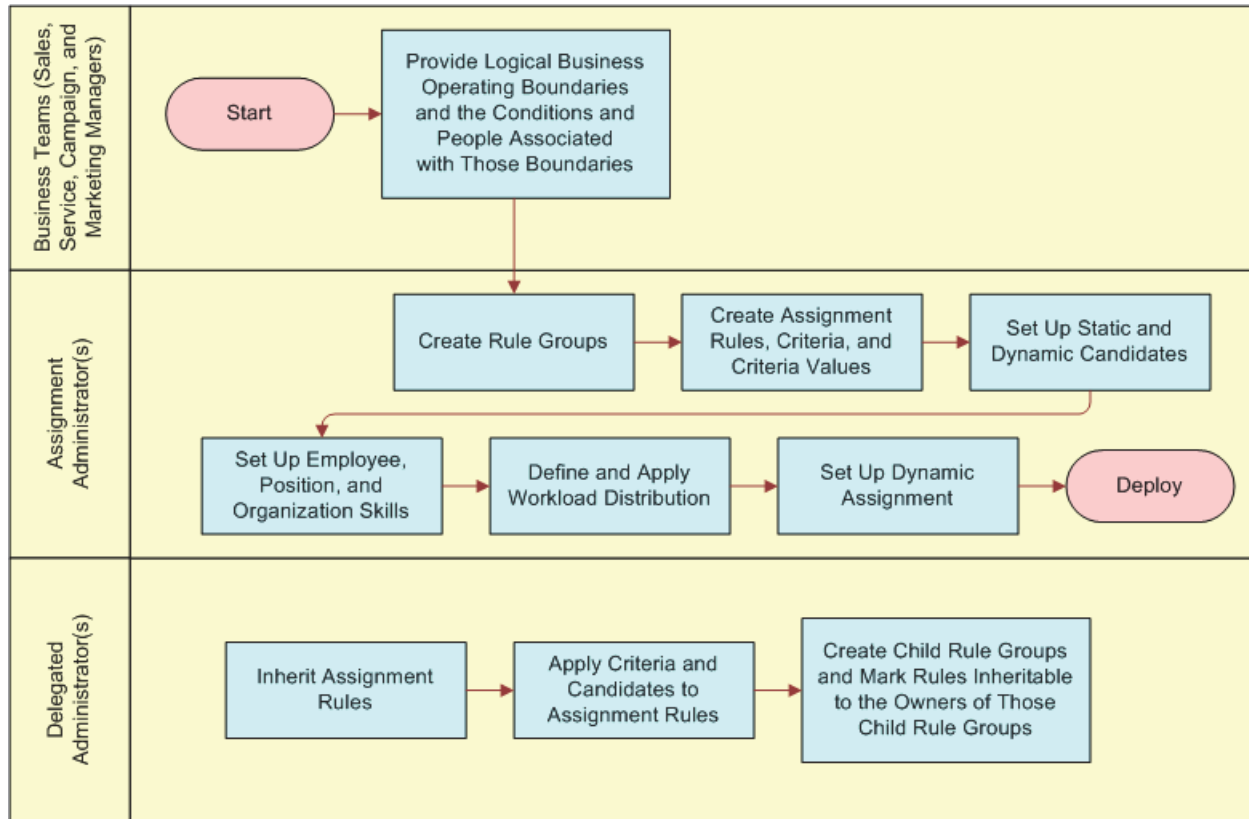
Table 5–1 lists the various tasks that you perform when defining new assignment rules. The steps represent a typical order of execution when defining a new assignment rule. However, many tasks are optional and might not be applicable for your deployment.

Table 5–1   Administrative Tasks for Defining Assignment Rules

Task	Required
1. "Creating Assignment Rule Groups" on page 5-5 **Note:** You must apply a rule group to each assignment rule. If you do not want to define your own rule groups, then you can use the predefined rule groups or the Default Rule Group.	Yes
2. "Creating Assignment Rules" on page 5-10	Yes
3. "Adding Assignment Criteria to Assignment Rules" on page 5-48	No
4. "Adding Criteria Values to Assignment Criteria" on page 5-51 or "Adding Criteria Values as Skills to Assignment Rules Using Expertise Codes" on page 5-60	No

Table 5–1   (Cont.) Administrative Tasks for Defining Assignment Rules

Task	Required
5. "Choosing a Candidate as the Primary Assignee" on page 5-19	No
6. "Adding Dynamic Candidate Teams to Assignment Rules" on page 7-13	No
Note: The assignment seed data provides two dynamic candidate teams: Activity Account Team and Activity Asset Team. There is no organization dynamic team seed data provided. You might have to configure your own teams according to your business needs.	
7. "Choosing a Candidate as the Primary Assignee" on page 5-19	No
8. "Associating Skills with Employees, Positions, and Organizations" on page 5-56	No
9. "Creating Assignment Workload Distribution Rules" on page 5-65	No
10. "Applying Assignment Workload Distribution to Employees, Positions, and Organizations" on page 5-66	No
11. "Process of Defining Assignment Policies for Dynamic Assignment" on page 5-69	No

Creating Assignment Rule Groups

This topic is part of "About Assignment Rule Administration" on page 5-3.

This topic explains how to create new assignment rule groups using the assignment administration views. This task is a step in "Process of Defining Assignment Rules" on page 5-3.

About Assignment Rule Groups

An assignment rule group is a logical grouping of assignment rules, and assignment rules are logical business boundaries associated with individuals or a team of people to achieve a business goal. Assigning rule groups to assignment rules allows you to partition rules based on organizational or corporate goals, or some other grouping, such as email response.

Table 5–2 provides sample rule groups and their descriptions.

Table 5–2   Sample Rule Groups

Assignment Rule Group Name	Description
North America-USA	Assignment rules related to the United States are associated with the North America-USA rule group.
Service Products	Assignment rules related to service products are associated with a single rule group.
Email Response Group	Assignment rules related to Siebel Email Response are associated with a single rule group.

You can set up Assignment Manager to process only specific assignment rule groups and not others. See "How Siebel Assignment Manager Uses Server Key Mappings to Load Rules to a Particular Siebel Server" on page 5-20.

Requirements

Before applying rule groups to your assignment rules based on your particular business needs:

- Decide whether you want to use rule groups.

  Create rule groups if you want a separate set of assignment rules that you can apply to different business scenarios. Alternatively, you do not have to create rule groups if you want all of the rules processed every time that you run Assignment Manager. In this case, use the Default Rule Group that is provided as part of the Assignment Manager seed data.

- Decide whether you need rule group hierarchies.

  If you plan to use delegated assignment, then you need rule group hierarchies.

For more information about the Default Rule Group, see the description for assignment rule groups in "Essential Building Blocks of Siebel Assignment Manager" on page 4-6. For more information about delegated assignment and rule group hierarchies, see Chapter 8, "Assignment Rule Administration for Delegated Assignment."

To create an assignment rule group

1. Navigate to the Administration - Assignment screen, and then the Rule Groups List view.

2. In the Rule Groups list, click New.

3. In the new record, click in the available fields to enter relevant information.

   The new rule group appears in the Rule Groups list as well as in the Rule Group Explorer.

Table 5–3 shows the predefined fields.

> **Tip:** All fields might not be visible by default in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.

Table 5–3   Assignment Rule Group Fields

Field	Description
Name	Name of the assignment rule group.
Parent Rule Group	A rule group that appears directly above another rule group in the hierarchy.
Owner Position	The owner of the rule group. Each rule group has an owner (and potentially designees who also have owner rights). For more information about owners and designees as it relates to delegated assignment, see "About Assignment Rule Group Hierarchy" on page 8-5.
Owner Login	The login of the owner position. The owner position has visibility from the delegated administration views for rule groups and each of the child rule groups.
Activation	Start date of the assignment rule group. By default, rules within a group inherit the activation date from the group date. However, if you specify an activation date for a particular rule, then it overrides that date. **Note:** By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.

Table 5–3 (Cont.) Assignment Rule Group Fields

Field	Description
Expiration	End date of the assignment rule group.
	By default, rules within a group inherit the expiration date from the group date. However, if you specify an activation date for a particular rule, then it overrides that date.
	Note: By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Key Based	Indicates that the rule group is intended for key-based routing and usually has a corresponding server key mapping.
	By checking this flag, even if there is no server key mapping defined for the rule group, this makes sure that the rules that belong to this rule group are not processed when running Assignment Manager in default mode.
	Tip: The Key Based field might be a hidden column in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.
	For more information about key-based routing and server key mappings, see "How Siebel Assignment Manager Uses Server Key Mappings to Load Rules to a Particular Siebel Server" on page 5-20.
Organization	The organization in which this rule group belongs.

If you plan to use delegated assignment, see also "Creating Child Assignment Rule Groups" on page 8-11.

About Some of the Assignment Rule Fields

This topic is part of "About Assignment Rule Administration" on page 5-3.

The information in this topic provides detailed descriptions of the following assignment rule fields:

- "Assignee Filter Field" on page 5-7
- "Candidates Source Fields" on page 5-8
- "Check Employee Calendar Field" on page 5-9
- "Exclusive Field" on page 5-10

Assignee Filter Field

The value in the Assignee Filter field of an assignment rule determines how candidates are evaluated as potential assignees to the object. Table 5–4 shows the filters used by Assignment Manager to determine which potential assignees are assigned to the object for each assignment rule.

Table 5–4 Assignee Filter Field Values

Assignee Filter	Description
All, Above Minimum	Use assignees with an assignment score greater than or equal to the assignment rule's candidate passing score. Assigns one or more assignees.

Table 5–4 (Cont.) Assignee Filter Field Values

Assignee Filter	Description
All, Must Assign	Same as the All, Above Minimum value, except that the highest-scoring candidate is a potential assignee even if all candidates fail to meet the candidate passing score. Assigns one or more assignees.
One, Best Fit	Use the highest-scoring assignee with an assignment score greater than or equal to the candidate passing score. Assigns one assignee.
One, Random	Choose a random assignee whose score is greater than or equal to the candidate passing score required for this assignment rule. Assigns one assignee.

> **Note:** If you do not use scores, then the candidate passing score on the assignment rule and all qualifying candidate scores are treated as zero. Therefore, every qualifying candidate (every candidate that passes all required criteria) is assigned depending on the assignee filter.

Candidates Source Fields

For each assignment rule, the administrator determines whether Assignment Manager takes candidates directly from the assignment rule (statically) or dynamically from the object row by indicating the candidate source. There are two candidates source fields: person candidates and organization candidates.

Person Candidates Source Field

For the Person Candidates Source field, assignment rules apply as follows:

- **From Rule.** The candidates are the people (positions and employees) defined for an assignment rule and are statically assigned. This setting is the default value for person candidates.

- **All People.** The candidates are all the people (positions and employees) in the database and are statically assigned.

- **Teams.** The candidates are persons (positions and employees) from dynamic candidate teams that you defined in Siebel Tools. In Siebel Tools, you choose either positions or employees as the value of the Team Type property in the Dynamic Candidate object to indicate that the person candidates for the assignment rule will come dynamically from the relevant attribute on the object row.

  Two teams (Activity Account Team and Activity Asset Team) are provided as seed data, but you can add your own teams using Siebel Tools. In addition, several teams are predefined for use with territory management.

  For more information about the Team Type property, see Table 7–3.

Organization Candidates Source Field

For the Organization Candidates Source field, assignment rules apply as follows:

- **From Rule.** The candidates are the organizations defined for an assignment rule and are statically assigned. This setting is the default value for organization candidates.

- **All Organizations.** The candidates are all the organizations in the database and are statically assigned.

■ **Teams.** The candidates are organizations from dynamic candidate teams that you defined in Siebel Tools. In Siebel Tools, you choose organization as the value of the Team Type property in the Dynamic Candidate object to indicate that organization candidates for the assignment rule will come dynamically from the relevant attribute on the object row.

No dynamic candidate team seed data is provided for organizations. You must configure your own teams according to your business needs.

For more information about the Team Type property, see Table 7–3.

For dynamic candidate teams, the value (employee, position, or organization) of the Team Type property of the Dynamic Candidate object in Siebel Tools determines what appears in the candidates source LOV fields in the assignment rule, as shown in Figure 5–2.

Figure 5–2   Relationship of Candidates Source Assignment Rule Fields to Team Type Property in Siebel Tools

Check Employee Calendar Field

For each assignment rule, the administrator can designate whether Assignment Manager checks the employees' calendars when determining assignment eligibility. By checking the Check Employee Calendar field in the Assignment Rules List view, Assignment Manager checks for employee availability.

The Check Employee Calendar feature is used only for employee-based assignment objects, and requires the installation of the Siebel Field Service application. This feature depends on the Appointment Booking System in Siebel Field Service. You must first

configure the Activity and Service Request assignment objects using Siebel Tools before this feature is available.

For more information about the Check Employee Calendar feature, see "About Availability-Based Assignment" on page 11-1.

Exclusive Field

For each assignment rule, the administrator can designate whether that rule is exclusive.

If a rule is exclusive and has assignees, then all assignees from other rules are discarded. If there are no exclusive rules, then the primary rule is the rule with the highest-scoring assignee and the primary assignee is the highest-scoring assignee. In this case, no assignees from the other rules are discarded; however, if the assignment object does not allow for more than one assignee, then only the primary assignee is assigned.

If there are multiple exclusive rules, then the exclusive rule with the highest-scoring assignee is chosen as the only exclusive rule. However, if multiple exclusive rules with equal scores qualify, then the default employee, default position, or default organization is assigned, because Assignment Manager is unable to determine the winning rule. For more information about assigning a default employee, default position, or default organization, see "Assignment Methodology" on page 5-31.

You make an assignment rule exclusive by checking the Exclusive flag for the assignment rule.

Creating Assignment Rules

This topic is part of "About Assignment Rule Administration" on page 5-3.

Each assignment rule has an activation date and an expiration date that you can use to denote a range of dates for when the rule must be active. If you specify an activation date and no expiration date, then the rule is active from the date denoted by the activation date onwards. If you specify an expiration date and no activation date, then the rule is active until the date denoted by the expiration date. If you do not specify either the activation date or the expiration date, then the rule is always active.

Note: Siebel Assignment Manager uses the database time to determine whether a rule is active.

Use the following procedure to create your assignment rules. This task is a step in "Process of Defining Assignment Rules" on page 5-3.

To create an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, click New.

3. In the new record, click in the available fields to enter relevant information for the new rule.

Table 5–5 shows the predefined fields.

Tip: All fields might not be visible in the initial view. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.

Table 5–5   Assignment Rule Fields

Field	Description
Name	Name of the assignment rule.
Rule Group	Assignment rule groups applied to this rule. Each rule must be associated to an assignment rule group.
Objects to be Assigned	A multivalue group (MVG) field that allows you to select one or more assignment objects to apply to the rule. **Note:** These objects are the business entities chosen by the assignment administrator, such as accounts, contacts, and so on.
Sequence	Sequence number for this rule. Assignment Manager uses this number to prioritize the execution of a set of rules. By default, assignment rules do not have a sequence number; one must be assigned by the administrator, if needed. For more information about rule sequencing, see "How Siebel Assignment Manager Determines the Sequence in Which Rules Are Evaluated" on page 5-16.
Activation	Start date of the assignment rule. **Note:** By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Expiration	End date of the assignment rule. **Note:** By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Score	Score eligible for the assignment rule if qualifications are met. For more information about scoring, see "About Assignment Scoring" on page 5-44.
Exclusive	If selected, then the candidates for this assignment rule supersede candidates that qualify for any other nonexclusive assignment rules. For more information about the exclusive feature, see "About Some of the Assignment Rule Fields" on page 5-7.
Person Candidates Source	Determines whether the employee or position candidates for this rule are specified on the assignment rule (statically) or are chosen dynamically using predefined dynamic candidate object definitions. The choices are From Rule, All People, and whatever other dynamic person candidate team records that you defined in the Dynamic Candidate object using Siebel Tools. For more information about this field, see "Candidates Source Fields" on page 5-8.
Organization Candidates Source	Determines whether the organization candidates for this rule are specified on the assignment rule (statically) or are chosen dynamically using predefined dynamic candidate object definitions. The choices are From Rule, All Organizations, and whatever other dynamic candidate team records you defined in the Dynamic Candidate object using Siebel Tools. For more information about this field, see "Candidates Source Fields" on page 5-8.

Table 5–5 (Cont.) Assignment Rule Fields

Field	Description
Assignee Filter	Filters used by Assignment Manager to determine which potential assignees are assigned. Choices for assignee filters are: ■　All, Above Minimum ■　All, Must Assign ■　One, Best Fit ■　One, Random Defaults to All, Above Minimum when creating new assignment rules. For more information this field, see "About Some of the Assignment Rule Fields" on page 5-7.
Candidate Passing Score	Minimum score required for candidates to qualify for this assignment rule. Defaults to 0 (zero) when creating new assignment rules.
Check Employee Calendar	If selected, then this activates Assignment Manager to check employees' calendars when determining assignment eligibility. Used only for employee-based objects. For more information about this field, see "About Some of the Assignment Rule Fields" on page 5-7.
Primary Employee	Primary employee for this assignment rule if the rule passes and is the highest scoring rule for that object. Typically used for service-related assignments. Applicable only if this employee qualifies from the assignment rule (either from the rule itself or from dynamic candidates). However, if the AddScores parameter is set to TRUE, then the primary employee is ignored. This parameter overrides primaries on the rule, merges scores for each candidate across the rules, and then calculates the primary based on the highest total scoring employee that passes for that object. **Note:** If the assignee filter type is One, Best Fit, then do not select a primary employee, because the highest-scoring employee is still selected and the primary employee is excluded. For information about assigning a particular employee as the primary assignee on a specific assignment rule, see "Choosing a Candidate as the Primary Assignee" on page 5-19.
Primary Organization	Primary organization for this assignment rule if the rule passes and is the highest scoring rule for that object. Applicable only if this organization qualifies from the assignment rule (either from the rule itself or from dynamic candidates). However, if the AddScores parameter is set to TRUE, then the primary organization is ignored. This parameter overrides primaries on the rule, merges scores for each candidate across the rules, and then calculates the primary based on the highest total scoring organization that passes for that object. **Note:** If the assignee filter type is One, Best Fit, then do not select a primary organization, because the highest-scoring organization is still selected and the primary organization is excluded. For information about assigning a particular organization as the primary assignee on a specific assignment rule, see "Choosing a Candidate as the Primary Assignee" on page 5-19.

Table 5–5   (Cont.) Assignment Rule Fields

Field	Description
Primary Position	Primary position for this assignment rule if the rule passes and is the highest scoring rule for that object. Typically used for sales-related assignments. Applicable only if this position qualifies from the assignment rule (either from the rule itself or from dynamic candidates).
	However, if the AddScores parameter is set to TRUE, then the primary position is ignored. This parameter overrides primaries on the rule, merges scores for each candidate across the rules, and then calculates the primary based on the highest total scoring position that passes for that object.
	Note: If the Assignee Filter type is One, Best Fit, then do not select a primary position, because the highest-scoring position is still selected and the primary position is excluded.
	For information about assigning a particular position as the primary assignee on a specific assignment rule, see "Choosing a Candidate as the Primary Assignee" on page 5-19.

Adding Employees, Positions, and Organizations to Assignment Rules

This topic is part of "About Assignment Rule Administration" on page 5-3.

This topic provides procedures for adding employees, positions, and organizations to assignment rules.

This task is a step in "Process of Defining Assignment Rules" on page 5-3.

Siebel Assignment Manager can assign employees, positions, and organizations based on their association with their parent organization. For example, only employees or positions associated with a specific organization can be assigned to an assignment object even if other employees or positions associated with other organizations qualify. Positions assigned to an assignment object can also have their associated organizations assigned. This functionality is called multitiered assignment, and you must configure the appropriate assignment object before implementing.

For information about configuring assignment objects for multitiered assignment, see "Reassigning Accounts to a Different Primary Position" on page 10-6.

Alternatively, you can set a default employee, position, or organization for assignment objects. For example, if you want records for a given assignment object assigned to a certain employee, then you can change the Default Employee property on the assignment object using Siebel Tools. For more information about the Default Employee, Default Position, and Default Organization properties, see *Siebel Object Types Reference*.

For more information about setting these properties, see "Configuring Assignment Object Properties" on page 6-8.

> **Note:**   Assignment Manager does not prevent you from adding employees to an assignment rule that performs position assignments. If a particular rule is set for position assignment and the rule has employees associated with the assignment rule, then Assignment Manager considers only the position candidates.

Adding Employees to an Assignment Rule

Use the following procedure to add employees to an assignment rule.

To add employees to an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to add employees, and then click the Employee Candidates view tab.

3. In the Employee Candidates list, click New.

4. In the Add Employees dialog box, select the employees to include for this assignment rule, and then click OK.

5. In the new employee record, click in the available fields to enter or edit the relevant information.

6. If new candidates are added, then make sure that you release the assignment rules for the changes to take effect.

   For more information about releasing assignment rules, see "Releasing Assignment Rules" on page 5-22.

   > **Note:** If the All People value is selected in the Person Candidates Source field for the assignment rule, then all candidates are evaluated even if they are not listed in the Employee Candidates list or the Position Candidates list. Any new candidate is only evaluated only after the rules are released.

Table 5–6 shows select predefined fields available for editing.

Table 5–6   Employee Candidates List Fields

Field	Description
Activation	Start date of the assignment rule employee.
	Note: By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Expiration	End date of the assignment rule employee.
	Note: By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Score	An initial score for each employee is permitted in this field to differentiate between other employees for potential assignment.

> **Note:** For assignment purposes, an employee's organization is the organization corresponding to the employee's primary position. For example, if Employee A holds Position A, where Position A is in the Sales East organization, then Employee A's organization is the Sales East organization.

Adding Positions to an Assignment Rule

Use the following procedure to add positions to an assignment rule.

To add positions to an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to add positions, and then click the Position Candidates view tab.

3. In the Position Candidates list, click New.

4. In the Add Positions dialog box, select the positions to include for this assignment rule, and then click OK.

5. In the new record in the Positions list, click in the available fields to enter or edit the relevant information.

6. If new candidates are added, then make sure that you release the assignment rules for the changes to take effect.

   For more information about releasing assignment rules, see "Releasing Assignment Rules" on page 5-22.

   > **Note:** If the All People value is selected in the Person Candidates Source field for the assignment rule, then all candidates are evaluated even if they are not listed in the Employee Candidates list or the Position Candidates list. Any new candidate is evaluated only after the rules are released.

Table 5–7 shows select predefined fields available for editing.

Table 5–7   Position Candidates List Fields

Field	Description
Activation	Start date of the assignment rule position.
	Note: By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Expiration	End date of the assignment rule position.
	Note: By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Score	An initial score for each position is permitted in this field to differentiate between other positions for potential assignment.

After you add positions for an assignment rule, only the active employees for each position are available. If Assignment Manager assigns the position, then employees for the position have visibility to the assigned object.

To delete system-assigned positions from individual assignment objects, or to manually assign other positions, see the procedure in "Maintaining the Manually Assigned Primary Position" on page 10-8.

You can configure Assignment Manager to define additional fields for Positions associated with an assignment rule. For more information about defining fields for Positions, see "Configuring Assignment Objects to Copy Additional Columns to the Team Table" on page 10-12.

Adding Organizations to an Assignment Rule

Use the following procedure to add organizations to an assignment rule.

To add organizations to an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to add organizations, and then click the Organization Candidates view tab.

3. In the Organization Candidates list, click New.

4. In the Add Organization dialog box, select the organizations to include for this assignment rule, and then click OK.

5. In the new record in the Organizations list, click in the available fields to enter or edit the relevant information.

6. If new candidates are added, then make sure that you release the assignment rules for the changes to take effect.

   For more information about releasing assignment rules, see "Releasing Assignment Rules" on page 5-22.

> **Note:** If the All Organizations value is selected in the Organization Candidates Source field for the assignment rule, then all candidates are evaluated even if they are not listed in the Organization Candidates list.

Table 5–8 shows select predefined fields available for editing.

Table 5–8   Organization Candidates List Fields

Field	Description
Activation	Start date of the assignment rule organization. **Note:** By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Expiration	End date of the assignment rule organization. **Note:** By default, Siebel Business Applications use Universal Time Coordinated (UTC). For more information, see *Siebel Global Deployment Guide*.
Score	An initial score for each organization is permitted in this field to differentiate between other organizations for potential assignment.

Adding a Sequence Number to Assignment Rules

This topic is part of "About Assignment Rule Administration" on page 5-3.

This topic explains how to add sequence numbers to assignment rules.

To add a sequence number to an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, select the assignment rule for which you want to define rule sequencing.

3. In the Sequence field, enter a sequence number.

How Siebel Assignment Manager Determines the Sequence in Which Rules Are Evaluated

This topic is part of "About Assignment Rule Administration" on page 5-3.

When you assign sequence numbers to assignment rules, Siebel Assignment Manager evaluates those rules in ascending order of the sequence numbers. Assignment rule sequencing provides a means for you to prioritize the rules that apply to any given assignment object by order of importance, thereby limiting the number of rules that Assignment Manager processes for assignment.

For example, you might want to run Assignment Manager only for your higher priority rules first. If those rules pass, then stop processing additional rules, because candidates are already successfully matched.

If none of the rules have a sequence number, or if all of the rules have the same sequence number, then Assignment Manager processes all the rules. However, if some of the rules in the group have sequence numbers and other rules do not, then the rules with no specified sequence number are considered to have a sequence number of 0 and are evaluated first. Therefore, it is recommended that you give every rule a sequence number if you use sequencing.

After processing every assignment rule within a sequence number, Assignment Manager checks to see if each rule was successfully assigned. When a rule results in successful assignment, Assignment Manager processes the rest of the rules having the same sequence number and then stops processing. Subsequently, the rules with higher sequence numbers are not processed.

As shown in Table 5–9, Assignment Manager identifies the beginning and end of a segment within a sequence by the change in sequence number. For example, Assignment Manager first evaluates rules with a sequence number of 1, then evaluates rules with a sequence number of 2, and so on. It does not matter, however, how rules within a segment are evaluated.

At run time, Assignment Manager evaluates the rules in the first segment (Segment 1) first, and then stops to find out whether an assignment has been made. If it has assigned, then Assignment Manager does not continue. If it has not assigned, then Assignment Manager continues to the next sequence (Segment 2).

Table 5–9   Example of a Rule Sequence

Segment	Assignment Rule	Sequence Number
1	Assign Sales Rep West	1
	Assign Sales Rep North	1
	Assign Sales Rep East	1
2	Assign Sales Rep West	2
	Assign Sales Rep North	2
3	Assign Sales Rep West	3
	Assign Sales Rep North	3
	Assign Sales Rep East	3

If Assignment Manager is running in default mode and there are multiple rule groups defined, then Assignment Manager evaluates the rules as if they are part of one big group.

For example, assume that there are two rule groups loaded by the same Assignment Manager server, with the sequences shown in Table 5–10.

Table 5–10   Example Rule Groups A and B

Rule Group A	Rule Group B
1	1
1	1
1	2
2	2
2	3
3	3
3	3

Then, this is the order Assignment Manager evaluates those rules:

A1

A1

A1

B1

B1

A2

A2

B2

B2

A3

A3

B3

B3

B3

Sequence numbers can be assigned to assignment rules when creating new assignment rules or can be added to assignment rules at a later time.

Defining Assignment Rules to Use a Single Criterion for Multiple Objects

This topic is part of "About Assignment Rule Administration" on page 5-3.

In some cases, you might want to create an assignment rule that assigns candidates to two or more objects while using only one object's criteria. This topic uses a specific scenario as an example in which you create an assignment rule to use only an Opportunity criteria to assign candidates to both the Opportunity and Account objects. This rule can be used to assign candidates to opportunities and their associated accounts.

To create assignment rules that assign two objects using only one object criteria, you must create and map workflow policy components using Siebel Tools after defining the assignment rule.

To define an assignment rule to use a single criterion for multiple objects

1. Create an assignment rule and specify the assignment objects that are assigned using this rule.

   For this example, create an assignment rule called Account/Opportunity and add the Account and Opportunity objects to this rule. For more information about creating assignment rules, see "Creating Assignment Rules" on page 5-10.

2. Create an assignment criteria that applies to only one of the assignment objects in this assignment rule.

   For this example, configure the Lead Quality Code assignment criteria (an Opportunity object criteria). For more information about creating assignment criteria, see "Creating Assignment Rules" on page 5-10.

3. After the assignment rule is defined, create a workflow policy component that maps to both objects.

   For information about creating a workflow policy component, see "Using a Single Criterion for Multiple Assignment Objects" on page 6-26.

4. Map the workflow policy component that you created with the column.

   For information about mapping a workflow policy column, see "Mapping Assignment Attribute Columns to an Assignment Object and a Workflow Policy Component Column" on page 6-20.

5. Map the workflow policy component that you created to the assignment attribute.

   For information about mapping a workflow policy component to assignment attributes, see "Mapping Assignment Attribute Columns to an Assignment Object and a Workflow Policy Component Column" on page 6-20.

Figure 6–8 shows an example of defining an assignment rule for the Account and Opportunity objects using only the Lead Quality Code assignment criteria.

Choosing a Candidate as the Primary Assignee

This topic is part of "About Assignment Rule Administration" on page 5-3.

Siebel Assignment Manager provides the ability to influence a particular candidate to act as a primary assignee for a specific assignment rule. You do so by picking an employee, a position, or an organization from the Primary Employee, Primary Position, or Primary Organization pick dialog box in the Assignment Rules list. This primary assignee represents the candidate (employee, position, or organization) that is assigned as the primary owner of the assignment object if the candidate passes the criteria for that rule.

> **Note:** Typically, you choose a primary assignee when creating an assignment rule, however, you can add a primary to an existing assignment rule at any time. You must release the rule for the change to take effect.

This task is a step in "Process of Defining Assignment Rules" on page 5-3.

To choose a candidate as the primary assignee

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, select the assignment rule for which you want to assign a particular candidate as the primary assignee.

3. In one of the following fields, click the select button.

   – **Primary Employee.** If you want to assign a particular employee, then query for that employee, and then click OK.

   – **Primary Position.** If you want to assign a particular position, then query for that position, and then click OK.

   – **Primary Organization.** If you want to assign a particular organization, then query for that organization, and then click OK.

     Tip: The Primary Employee, Primary Position, and Primary Organization fields might be hidden columns in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.

Defining Server Key Mappings for Assignment Rule Groups

This topic is part of "About Assignment Rule Administration" on page 5-3.

This topic explains how to define server key mappings for assignment rule groups. You can at any time change a server key mapping to another rule group or another Siebel Server.

To define a server key mapping

1. Navigate to the Administration - Assignment screen, and then the Server Key Mappings view.

2. In the Assignment Server Key Mappings list, click New.

3. In the new record, click in the available fields to enter relevant information.

Table 5–11 shows the predefined fields.

Table 5–11   Server Key Mapping Fields

Field	Description
Siebel Server Name	The name of the Siebel Server that is running that instance of Assignment Manager. This field does not represent the computer name.
	For more information about Siebel Servers, see *Siebel System Administration Guide*.
Assignment Rule Group	The assignment rule group that you want to associate with a particular Siebel Server running Assignment Manager.

If you want to exclusively mark certain rule groups for use with server key mappings, then you can set the Key Based flag to TRUE for these rule groups (using the Key Based list column on the Rule Groups List view). These rule groups are not loaded by any Assignment Manager component operating in default mode. For more information about rule group usage, see "Creating Assignment Rule Groups" on page 5-5.

How Siebel Assignment Manager Uses Server Key Mappings to Load Rules to a Particular Siebel Server

This topic is part of "About Assignment Rule Administration" on page 5-3.

For each Siebel Server, you use server key mappings to define multiple rule groups that you want that server to load and process. Using server key mappings allows you to use different servers for different business purposes.

After you define server key mappings in the assignment administration views, each Assignment Manager (AsgnSrvr) process looks for the server name in the key mappings during startup and only loads rules from those rule groups. The AsgnSrvr component also registers the rule group row IDs as keys. When you submit a request to a server, you must submit the AsgnKey parameter set to one of the rule group row IDs assigned to that server.

The server key mapping process uses an internal key-based routing mechanism to route requests to a particular server, however, this is done in the background and is not apparent. You can specify multiple servers to load the same rule group. In this case, the Server Request Broker component routes requests, based on load balancing metrics, to one of the Assignment Manager components that loaded that rule group.

You can mark certain rule groups for use only with server key mappings. These rule groups are not loaded by any Assignment Manager component operating in default mode.

The server key mappings feature is supported only in certain environments when you are using specific functionality, as follows:

■ **Script or workflow process calling a business service.** You can invoke Assignment Manager through a business service from within a workflow process, or from a script, using one of the following predefined business services:

– **Server Requests business service.** Use this generic business service to submit requests to a particular component using the Server Request Broker. With this business service, you can use the Assignment Manager server mapping feature. If you are using this business service to invoke rules based on rule groups, then pass the AsgnKey parameter as the input parameter, and pass the ReqKey parameter as a request parameter (in the child property set for the component). Then, set both the AsgnKey and ReqKey parameters to the rule group ID of the relevant rule group.

– **Synchronous Assignment Manager Requests business service.** This business service has one method available: Assign. This method sends a request to the Assignment Manager server component using the AsgnObjName and ObjRowId parameters. All active rules in the database are processed. Use this business service:

* To submit requests to assign a single object row

* With the Default Group (when no server key mappings are defined)

For more information about business services, see *Siebel Business Process Framework: Workflow Guide*. For more information about scripting, see *Siebel Object Interfaces Reference* and other applicable documentation.

■ **Interactive assignment.** In the default configuration, interactive assignment runs in default mode. However, interactive assignment can be customized to use the server key mappings feature using the SetAsgnKey method on the business component base class CSSBCBase.

Using a script, a workflow process, or a business service, you call the method to pass the row ID of one of the rule groups as the parameter. The interactive assignment feature uses this parameter as the AsgnKey and ReqKey parameters when submitting requests to the AsgnSrvr component.

You invoke the method only once for one session, but subsequent requests in the same session reuse the rule group row ID. However, when the session is logged out or the server is restarted, you have to call the method again to set the AsgnKey parameter. Otherwise, Assignment Manager reverts to running in default mode.

> **Note:** When you operate Assignment Manager in default mode, rules from rule groups that have the Key Based flag checked are not loaded.

Batch assignment and dynamic assignment do not read server key mappings.

> **Note:** You cannot run default mode and server key mappings mode on the same Assignment Manager, because the two tasks are mutually exclusive functionalities. If you require the assignment functionality of both modes, then you have to run Assignment Manager components on a separate server for each mode.

> **Tip:** Siebel Marketing is specifically designed to use the server key mappings and rule group features. For more information about Siebel Marketing, see *Siebel Marketing Installation and Administration Guide*.

Preparing to Release Assignment Rules

This topic is part of "About Assignment Rule Administration" on page 5-3.

Table 5–12 lists the administrative tasks for preparing for and releasing assignment rules. Perform these tasks in the order provided, and in the environment indicated, where they apply to your deployment.

Table 5–12   Tasks for Releasing Assignment Rules

Task	GUI	Siebel Tools
1. (Optional) "Defining Server Key Mappings for Assignment Rule Groups" on page 5-20.	Yes	No
2. (Optional) Set up Assignment Manager for availability-based assignment.	Yes	Yes
■ In Siebel Tools, complete several tasks. See "Process of Configuring Assignment Objects for Availability-Based Assignment" on page 11-4.		
■ In the GUI, check the Check Employee Calendar field for each assignment rule that you want to assign by availability.		
3. (Optional) Define load splitter configuration. See "Setting Up Load Splitter Configuration" on page 12-3.	Yes	No
4. "Releasing Assignment Rules" on page 5-22.	Yes	No

Releasing Assignment Rules

This topic is part of "About Assignment Rule Administration" on page 5-3.

After you define your assignment rules or make any changes to the rules, criteria, values, or candidates (employee, position, or organization) for the assignment rules,

you must release them to instruct Siebel Assignment Manager to use these rules. Releasing assignment rules also updates the rulecache.dat file. For more information about the rulecache.dat file, see "About Siebel Assignment Manager Rule Cache Files" on page 9-36.

The following procedure releases all assignment rules simultaneously. Do not release assignment rules while associated server tasks are running. After you have defined your assignment rules, you must release the rules and you might have to perform a few additional administrative tasks.

To release assignment rules

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, click the Release button.

   A confirmation message appears, indicating that the rules have been released.

   Note: You can also update the rule cache by deleting the rule cache files and restarting the Siebel Server. Search for *rulecache*.dat in the *SIEBSRVR_ROOT*\bin folder.

   Tip: If you want to verify that the new or modified rules have been applied, then check the timestamp of the rulecache.dat file or the Assignment Manager (AsgnSrvr) log file.

When a new Siebel Server is installed (for instance, as part of an upgrade), pending assignment rules are released (the rule cache is re-created) on the first startup. It is recommended that you release assignment rules after installation so that servers in the deployment re-create the same rule cache.

Migrating Assignment-Related Data

This topic is part of "About Assignment Rule Administration" on page 5-3.

You can migrate assignment-related data from one environment to another, such as to migrate positions, skills and skill items, or assignment criteria and criteria items, from a test environment to a production environment. You can migrate assignment-related data using Siebel Enterprise Integration Manager (EIM) or Siebel Application Deployment Manager (ADM).

You cannot directly migrate assignment rules themselves. You can export only child and grandchild data of assignment rules.

   Tip: You can also use the application user interface to export and import assignment-related data in spreadsheet files. However, this functionality is not for migrating such data between different environments. For detailed information, see "Exporting and Importing Assignment-Related Data" on page 5-24.

If you add or change assignment objects, assignment attributes, or assignment criteria, then you must also migrate the repository to the server production database.

During migration, Siebel Assignment Manager automatically updates existing assignment rules, as follows:

- If All People is selected in the Person Candidates Source field on the assignment rule, then the new value in the PERSON_CAND_TYPE column is All People.

- If All People is not selected in the Person Candidates Source field on the assignment rule, then the new value in the PERSON_CAND_TYPE column is From Rule.

- If All Organizations is selected in the Organization Candidates Source field on the assignment rule, then the new value in the BU_CAND_TYPE column is All Organizations.

- If All Organizations is not selected in the Organization Candidates Source field on the assignment rule, then the new value in the BU_CAND_TYPE column is From Rule.

For more information about migrating data using Siebel EIM or Siebel ADM, see *Siebel Enterprise Integration Manager Administration Guide* and *Siebel Application Deployment Manager Guide*.

Exporting and Importing Assignment-Related Data

The Siebel Business Applications user interface provides the ability for a qualified user to export assignment-related data into a spreadsheet file. After modifying the spreadsheet file, this user can then import the data from the file back into the same environment in order to modify the assignment data in the database.

Before exporting, the user can query for the specific data of interest to be exported. You can export and import:

- Positions and associated skills and skill items. (Data can be exported from two different views.)

- An assignment rule and associated criteria and criteria items.

- An assignment rule and associated position candidates.

Data you export is saved in a comma-separated values file (CSV file), which you can access from the Administration - Assignment screen, Transaction Logs view. You can open, modify, and save the file in a spreadsheet program such as Microsoft Excel. Later, you can import a modified copy of the file in order to update existing assignment-related data or add new data. (Data changes are subject to limitations described in this "Limitations for Importing Assignment-Related Data" on page 5-28).

> **Tip:** It is recommended to experiment with exporting and importing small amounts of test data before attempting to use this functionality as part of your actual business activities.

The information that is associated with the export and import operations described here can be reviewed in the Administration - Assignment screen, Transaction Logs view. The file that you exported or imported is available here as an attachment to the log record corresponding to the operation that you performed. For more information, see "Transaction Log Data for Export and Import Operations" on page 5-29.

This topic contains the following information:

- "Exporting Assignment-Related Data" on page 5-25

- "Preparing Assignment-Related Data for Import" on page 5-26

- "Importing Assignment-Related Data" on page 5-27

- "Limitations for Importing Assignment-Related Data" on page 5-28

- "Transaction Log Data for Export and Import Operations" on page 5-29

Exporting Assignment-Related Data

This topic is part of "Exporting and Importing Assignment-Related Data" on page 5-24.

Follow the procedure below to export assignment-related data.

> **Note:** Top-level assignment-related data cannot be exported if there are no associated child records. When you are exporting data for positions, make sure there are associated skills and skill items. When you are exporting data for an assignment rule, make sure there are associated criteria and criteria items or associated position candidates. See also "Limitations for Importing Assignment-Related Data" on page 5-28.

To export assignment-related data to a spreadsheet file

1. Navigate to one of the views that supports exporting assignment-related data:

    –   To export data for positions and associated skills and skill items, navigate to the Administration - Group screen, Positions view. Drill down on a position record to go to the list view and display associated skill and skill item data. Note the button in the top applet labeled Export Skill Data.

    –   Alternatively, to export data for skills and associated positions and skill items, navigate to the Administration - Group screen, Skills view, which displays associated position and skill item data below. Note the button in the top and bottom applets labeled Export Skill Data. (This view does not support importing data; use the Positions view for that task instead.)

    –   To export data for a single assignment rule and associated criteria and criteria items, navigate to the Administration - Assignment screen, Assignment Rules List view. Drill down on an assignment rule record to go to the form view, then click the Criteria tab to display the associated criteria. Note the button in the top applet labeled Export Assignment Data.

    –   To export data for a single assignment rule and associated position candidates, navigate to the Administration - Assignment screen, Assignment Rules List view. Drill down on an assignment rule record to go to the form view, then click the Position Candidates tab to display the associated position candidates. Note the button in the top applet labeled Export Assignment Data.

2. Perform queries, as necessary, to display a subset of the available data.

    For example, when exporting data associated with an assignment rule, you might use a query to locate the specific assignment rule of interest. Or, when exporting data associated with positions, you might use a query to display the particular subset of positions of interest to you.

3. Click the appropriate export button (noted in Step 1) to begin the process of exporting data.

4. In the dialog box that appears, enter a name for the spreadsheet file that you are exporting, excluding the file extension.

    The file will be saved as a comma-separated values file (CSV file), which can be opened in a spreadsheet program. The .csv file extension is added when the export file is created.

5. (Optional) Enter some descriptive text for the Export Process Description field. This value is helpful if you have to review log data from the export operation.

> **Note:** In the Transaction Logs view, in the record associated with the export operation, the Description field contains a string that is derived from the string value you provided in the Export Process Description field. For more information, see "Transaction Log Data for Export and Import Operations" on page 5-29.

6. Click OK to begin exporting. Or click Cancel to cancel the export operation.

7. Navigate to the Administration - Assignment screen, Transaction Logs view.

    The CSV file that you exported is available as an attachment to the transaction log record for the export operation.

8. Click to save the exported file or open it in a spreadsheet program like Microsoft Excel.

9. Save a copy of the spreadsheet file, or copy the file, into a directory that you can access from your current computer or from the computer where further changes can be made.

> **Note:** For reference, keep a copy of the original CSV file with the original name. Make another copy of the file that you will modify, naming it as appropriate for your business needs.

10. Modify the data in the spreadsheet file, as appropriate, and prepare the file for import. For more information, see "Preparing Assignment-Related Data for Import" on page 5-26.

Preparing Assignment-Related Data for Import

This topic is part of "Exporting and Importing Assignment-Related Data" on page 5-24.

Validate that the assignment-related data was successfully exported into the spreadsheet file. Make sure that any changes that you make support your business needs and take into account all documented limitations. Later, you can import a modified file in order to update existing assignment-related data or add new data.

For example, through editing the spreadsheet file, you can do the following (subject to limitations):

■ Add, update, or delete skills or skill items that are associated with existing positions.

■ Add, update, or delete criteria, criteria items, or position candidates that are associated with an existing assignment rule.

Before you import data from the spreadsheet file, review the information about limitations for importing assignment-related data and the relevant user keys for importing assignment-related data, in "Limitations for Importing Assignment-Related Data" on page 5-28.

> **Note:** You cannot add, update, or delete positions or assignment rules through importing the spreadsheet file.

For instructions for importing data from a spreadsheet file that you exported and modified, see "Importing Assignment-Related Data" on page 5-27.

Importing Assignment-Related Data

This topic is part of "Exporting and Importing Assignment-Related Data" on page 5-24.

Follow the procedure below to import assignment-related data from a spreadsheet file that you previously exported and modified.

To import assignment-related data from a spreadsheet file

1. Review "Preparing Assignment-Related Data for Import" on page 5-26 and related topics.

2. Navigate to one of the views that supports importing assignment-related data.

    –   To import data for positions and associated skills and skill items, navigate to the Administration - Group screen, Positions view. Drill down on a position record to go to the list view and display the associated skill and skill item data. Note the button in the top applet labeled Import Skill Data.

    –   To import data for a single assignment rule and associated criteria and criteria items, navigate to the Administration - Assignment screen, Assignment Rules List view. Drill down on an assignment rule record to go to the form view, then click the Criteria tab to display the associated criteria. Note the button in the top applet labeled Import Assignment Data.

    –   To import data for a single assignment rule and associated position candidates, navigate to the Administration - Assignment screen, Assignment Rules List view. Drill down on an assignment rule record to go to the form view, then click the Position Candidates tab to display the associated position candidates. Note the button in the top applet labeled Import Assignment Data.

3. Click the appropriate import button (noted in Step 2) to begin the process of importing data.

4. In the dialog box that appears, click Browse to specify the location of the spreadsheet file that you are importing and to select the file.

5. (Optional) Enter some descriptive text for the Import Process Description field. This value is helpful if you have to review log data from the import operation.

    > **Note:** In the Transaction Logs view, in the record associated with the import operation, the Description field contains a string that is derived from the string value that you provided in the Import Process Description field. For more information, see "Transaction Log Data for Export and Import Operations" on page 5-29.

6. (Optional) Specify the number of records to be skipped.

    Use this option when the import file contains records at the beginning of the file that you must skip when importing the file data. For example, if you do not want to import the first four records, then specify 4.

7. (Optional) Specify the number of records to be processed.

Use this option (optionally along with the option for the number of records to be skipped) when the import file contains records at the end of the file that you must skip when importing the file data. For example:

- If the import file contains 10 records and you want to import the first four records only, then specify 4.

- Or, if the file contains 14 records, you are skipping the first four records, and you want to import records 5 though 10 only, then specify 6.

8. Click OK to begin importing. Or click Cancel to cancel the import operation.

9. Validate that the data from the spreadsheet file was successfully imported into the application.

Also review the transaction log to verify that the operation was performed as expected. To do this, navigate to the Administration - Assignment screen, Transaction Logs view. The transaction log contains data about failed records, skipped records, processed records, and so on. For more information about the data displayed in this view, see "Transaction Log Data for Export and Import Operations" on page 5-29.

Limitations for Importing Assignment-Related Data

This topic is part of "Exporting and Importing Assignment-Related Data" on page 5-24.

The following limitations apply when you import assignment-related data:

- **General limitations.** No insert, update, or delete operations can be performed on records for top-level object types: assignment rules or positions.

- **Update limitations.** The following limitations apply to updates that are performed as part of import operations:

  - User key values cannot be updated as part of an update. For the applicable user keys, see Table 5–13.

  - As noted in Table 5–13, skill items and criteria items have no static user key fields. You can update such records in an import operation if you use logically unique fields as user keys. For example:

    * If a skill is Competency, then Competency is a key field in associated skill items, and two other fields (Skill Level High and Skill Level Low) can be updated.

    * If a skill is Language, then Language Code is a key field in associated skill items, and only one field (Expertise) can be updated.

    * If a criterion is Account Bill To City State Country, then Bill to City, Bill to State, and Bill to Country are key fields in associated skill items, and one field (Score) can be updated.

Note: If you are not sure which fields make up the logical user key for particular skill items or criteria items, then you can specify that the import operation perform a delete followed by an insert with updated values.

- **Delete limitations.** The following limitations apply to deletes that are performed as part of import operations:

- As noted in Table 5–13, skill items and criteria items have no static user key fields. You can delete such records in an import operation if you use logically unique fields as user keys. If multiple records match a specified logical user key, then only the first matching record is deleted.

- Records for mid-level object types can be deleted only where all fields of the child object type are empty in the import file. Specifically, this means that criteria records can be deleted only if they have no associated criteria items in the import file, and skill records can be deleted only if they have no associated skill items in the import file.

User Key Fields Relevant to Importing Assignment-Related Data

Table 5–13 identifies the user key fields that control what happens when you import assignment-related data from a spreadsheet file.

Table 5–13   User Key Fields Relevant to Importing Assignment-Related Data

Object Types Represented in Import File	User Keys
Positions and associated skills	Position.Position
	Position.Division
	Position Skill.Item
Assignment rules and associated criteria	Assignment Group.Name
	Assignment Group.Rule Group
	Assignment Rule.Rule Criterion
	Assignment Rule.Comparison Method
	Assignment Rule.Inclusion
Assignment rules and associated position candidates	Assignment Group.Name
	Assignment Group.Rule Group
	Assignment Group Position.Position
	Assignment Group Position.Division
Skill items Criteria items	No static user keys. Specify logically unique fields: skill item or criteria item fields appropriate to the specific skill or criterion. Some examples precede this table.

Transaction Log Data for Export and Import Operations

This topic is part of "Exporting and Importing Assignment-Related Data" on page 5-24.

Table 5–14 describes the fields for the data that you can review in the Administration - Assignment screen, Transaction Logs view. Each record is an activity record that corresponds to an export or import operation that was initiated, whether the operation succeeded or failed.

The records displayed in the top applet in this view can be filtered by selecting My Transaction Logs (the default), My Team's Transaction Logs, or All Transaction Logs.

The lower applet in this view contains attachments for the spreadsheet file that you exported or imported. For an import operation, this applet also includes a log file. For export, a message is displayed to the user that contains some relevant data about the operation.

Table 5–14   Transaction Log Data for Export and Import Operations

Field	Description
Transaction #	The row ID for the transaction log record.
Description	A string that is derived from the string value that you provided in the Export Process Description or Import Process Description field (*string*, below). The format used in the Description field is like *string_username_date_time*, where *date* is in the format *YYYYMMDD* and *time* is in the format *hhmmss*. For export, if no string value was provided in Export Process Description, then substitute *ExportProcess* for *string* in the example. For import, if no string value was provided in Import Process Description, then substitute *ImportProcess* for *string* in the example.
Type	Export or Import, depending on the operation performed.
Status	Success or Failed.
Date	Datetime stamp recording when the export or import operation was completed and the log file was written.
Owner	The Siebel user name of the user who performed the export or import operation.
Display In	Value represents the view from which you exported data, or into which you imported data. The value can be one of the following: ■ **Position and Activities.** The operation was performed in the Administration - Group screen, in either the Positions view or Skills view. ■ **Activities Only.** The applet has no user property set. This value is always used for import operations. ■ **Assignment and Activities.** The operation was performed in the Administration - Assignment screen, in the Assignment Rules List view (form applet).
Comments	Comment text that you can enter after performing the export or import operation.

Assignment Methodology and Examples for Creating Assignment Rules

It is strongly recommended that you have a good understanding of how Siebel Assignment Manager evaluates candidates and determines assignments before you begin creating your assignment rules, or configure, administer, or use the various assignment features.

This topic explains assignment methodology and provides examples for creating different kinds of assignment rules. You may, however, use these features differently, depending on your business model. The topics are:

■ "Example of Creating Sales Assignment Rules Based on Sales Territories" on page 5-35

  An example of how a sales organization can strategically assign salespeople based on territories.

■ "Example of Creating Sales Assignment Rules That Combine Criteria" on page 5-37

  An example of how a sales organization can distribute its salespeople in the same geographic location based on revenue potential.

■ "Example of Creating Assignment Rules for Service Organizations" on page 5-39

  An example of how to create assignment rules for a service organization.

Figure 5–3 provides a high-level flowchart of Assignment Manager behavior.

Figure 5–3   Assignment Methodology Flowchart
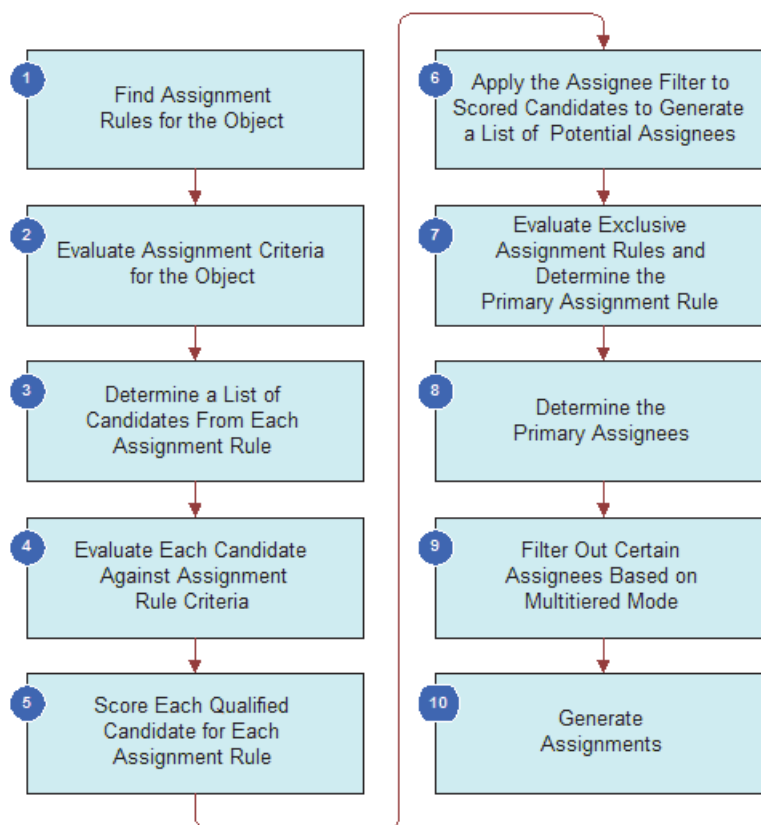
Assignment Methodology

This topic is part of "Assignment Methodology and Examples for Creating Assignment Rules" on page 5-30.

Before Siebel Assignment Manager starts to assign candidates to assignment objects, it checks the ASGN_DT column to determine whether or not to assign a row. This check on the ASDN_DT column is performed for interactive, dynamic, and batch assignment. Each time Assignment Manager assigns candidates to a record, the record's ASGN_DT column is populated with the date and time of the assignment.

Assignment Manager checks the value in the ASGN_DT column against the assignment request's time. Depending on the mode of assignment used, the *request time* might be defined in one of the following ways:

- For dynamic assignment, a row is inserted into the S_ESCL_REQ table, and the CREATED column in the S_ESCL_REQ table denotes the time when the record triggered the policy. The timestamp in the CREATED column is considered to be the request time.

- For batch assignment and interactive assignment, the request time is the time when the request is submitted to the server component, either Assignment Manager (AsgnSrvr) or Batch Assignment (AsgnBatch). That is, the request time represents when the tasks for the server component evaluates the assignment request.

- Assignment Manager then checks the ASGN_DT column, as follows:

  - If ASGN_DT is greater than the request time for the request being assigned, then the assignment is not performed on the row.

  - If ASGN_DT is less than the request time for the request being assigned, then the assignment is performed on the row.

Siebel Assignment Manager uses the following methodology to assign candidates to assignment objects.

1. **Assignment Manager finds assignment rules for an object.** Assignment Manager finds active assignment rules for evaluation for the object being assigned. If there are no active rules for the assignment object, then default assignees are assigned. In rule group mode, all the active rules for the assignment object belonging to the rule group of the request are processed.

   > **Note:** The Default Employee, Default Position, and Default Organization properties for each assignment object are defined in Siebel Tools. For more information about these properties, see "Choosing a Candidate as the Primary Assignee" on page 5-19.

2. **Assignment Manager evaluates assignment criteria for the object.** After Assignment Manager determines the rules for processing, it processes rules in ascending sequence number order. For each rule, Assignment Manager first evaluates each criterion with the Compare to Object comparison method.

   > **Note:** If criteria marked as Required do not satisfy the object's attributes, then Assignment Manager stops evaluating the assignment rule.

3. **Assignment Manager determines a list of candidates from each assignment rule.** For each assignment rule that satisfies Step 2, Assignment Manager determines a list of person and organization candidates relevant to the assignment rule, depending on the Person Candidates Source and Organization Candidates Source fields on the assignment rule.

   - **Static candidates from rule.** If the Person Candidates Source is indicated as From Rule, then:

     - If the assignment object uses position-based assignment, then the candidate list includes the positions registered in the Position Candidates view.

     - If the assignment object uses employee-based assignment, then the candidate list includes the employees registered in the Employee Candidates view.

   - **All People.** If the Person Candidates Source is indicated as All People, the candidate list includes all registered employees or positions in the Siebel database.

   - **Dynamic candidates.** If the Person Candidates Source is the name of a team (such as Activity Account Team or Activity Asset Team), then Assignment Manager obtains the candidate list from the team table related to the object row.

The list of organization candidates for each rule are determined using a similar method.

4. **Assignment Manager evaluates each candidate against assignment rule criteria.** Assignment Manager evaluates each candidate against the criteria using the selected comparison method as described in "Assignment Criteria Comparison Methods" on page 5-41. Workload distribution rules are also processed for each candidate.

> **Note:** Candidates fail if they do not match any required criterion and are not evaluated further against this rule.

5. **Assignment Manager scores each qualified candidate for each assignment rule.** Assignment Manager scores each candidate for an assignment rule based on the sum of:

   - The assignment rule score of each assignment criterion that is satisfied.

   - Each assignment criterion value that is satisfied depending on the inclusion method, as explained in "Assignment Criteria Inclusion Methods" on page 5-43.

     Some assignment criteria values (skills) are weighted by expertise.

     – To rank expertise codes, Assignment Manager uses the Order field in the List of Values view in the Administration - Data screen.

     – To define expertise weight, Assignment Manager uses the Weighting Factor field in the List of Values view in the Administration - Data screen.

   - The score for the candidate.

     For static candidates, this value is specified in the Employees Candidates view, Position Candidates view, or Organization Candidates view. For dynamic candidates, this value is specified in the Score Column property in the Dynamic Candidate object.

   - The criterion that is calculated as the prorated score.

     This value is the score based on the current workload of candidates compared to the maximum workload allowed.

     If the Assignment Rule form has the Check Employee Calendar box selected, then Assignment Manager uses the availability-based assignment feature to submit employee availability information to the Appointment Booking System in Siebel Field Service, which reviews qualified candidates' calendars and work schedules to see who is available to undertake the assignment at the required time. Employees who are not available at the requested time for the specified duration are eliminated.

     At this point, the score for the assignment rule is calculated from either the highest-scoring person candidate or organization candidate depending on the value in the Assignment Scoring Mode property for the assignment object.

6. **Assignment Manager applies the assignee filter to scored candidates to generate a list of potential assignees.** Assignment Manager uses the assignee filters to eliminate candidates and determine a final list of assignees. The choices are:

   - All, Above Minimum

   - All, Must Assign

- One, Best Fit

- One, Random

7. **Assignment Manager evaluates exclusive assignment rules and determines the primary assignment rule.** If no exclusive assignment rule exists or none of the exclusive rules passed, then the assignment rule with the highest score is the primary assignment rule. If none of the assignment rules has a score or if more than one rule has the same highest score, then the assignment rule with the lowest row ID is used to break the tie in the process of finding the primary assignment rule. If the AddScores property is set to TRUE, then scores for each candidate are merged across rules, and the candidate primaries are calculated based on the total scores.

   If at least one assignment rule marked as exclusive passes, then the exclusive assignment rule with the higher score is chosen as the primary rule. Only the assignees in this assignment rule are kept and all the assignees from other assignment rules are excluded.

   If no rules passed or more than one exclusive assignment rule yields the same highest score, then Assignment Manager assigns the object to:

   - The default employee for employee-based assignments.

   - The default position for position-based assignments.

   - The default organization for organization-based assignments.

   Note: When two or more exclusive assignment rules have the same score and the Keep Man Asgn Primary Position assignment property is set to TRUE on the object, then the manually assigned primary position is retained and the default position is added to the team as a nonprimary.

   ---

8. **Assignment Manager determines the primary assignees.** Assignment Manager determines the primary assignees from the primary assignment rule:

   - For objects that use employee-based assignments, set the primary assignee to the primary employee selected in the Primary Employee field of the Assignment Rule form for the primary assignment rule. If the selected primary employee is not an assignee that satisfies Step 6, or if there is no primary employee specified on the rule, then select the highest-scoring employee for the primary assignment rule that satisfies Step 6.

   - For objects that use position-based assignment, set the primary assignee to the primary position selected in the Primary Position field of the Assignment Rule form for the primary assignment rule. If the selected primary position is not an assignee that satisfies Step 6, or if there is no primary position specified on the rule, then select the highest-scoring position for the primary assignment rule that satisfies Step 6.

   - For objects that use organization-based assignments, set the primary organization to the primary organization selected in the Primary Organization field of the Assignment Rule form for the primary assignment rule. If the selected primary organization is not an assignee that satisfies Step 6, or if there is no primary organization specified on the rule, then select the highest-scoring organization for the primary assignment rule that satisfies Step 6.

> **Note:** The primary employee, position, or organization must pass the minimum score required for this assignment rule for assignment as the primary assignee. The only exception is when the Assignee Filter is All, Must Assign, in which case the highest-scoring candidate is a potential assignee if all candidates fail to meet the minimum score. For more information about assignee filters, see "About Some of the Assignment Rule Fields" on page 5-7.

9. **Assignment Manager filters out certain assignees based on multitiered mode.** By default, the assignment mode is set to independently assign qualifying people and organizations.

   If you set one of the other assignment modes (Person-Oriented, Organization-Oriented, Person and Organization-Oriented), then Assignment Manager filters out unwanted, but qualifying, people and organizations based on the relationship between them. Assignment Manager recalculates the primaries, if necessary; for example, if the primaries were filtered out by multitiered filtering. For more information, see "Configuring Assignment Objects for Multitiered Assignment" on page 10-24.

10. **Assignment Manager generates assignments.** Assignment Manager writes assignees to the database to finalize the assignment, as follows:

    - Writes the primary assignment rule and primary assignees to the object's primary table.

    - For team-based objects, writes assignees to the object's team table.

    > **Note:** For interactive assignments, assignees appear in the appropriate list after calculation. The candidate that Assignment Manager determines as the primary appears highlighted. The user can then choose the candidate or candidates for assignment, or the user can override and assign a different primary by selecting a different record.

Example of Creating Sales Assignment Rules Based on Sales Territories

This topic is part of "Assignment Methodology and Examples for Creating Assignment Rules" on page 5-30.

This topic gives one example of how a sales organization can strategically assign salespeople based on sales territories. You might use this feature differently, depending on your business model.

Your sales organization wants to create four territories based on geographic location. In this case, you might want to create four assignment rules: US Northeast, US Northwest, US Southeast, and US Southwest, as shown in Figure 5–4, "Example of Creating Sales Territories". Siebel Assignment Manager then assigns your salespeople depending on the geographic location of the sales opportunity.

> **Note:** For detailed instructions on performing each step in the following procedure, see Chapter 5, "Assignment Rule Administration."

Figure 5–4 Example of Creating Sales Territories

To create sales assignment rules based on sales territories

1. Create assignment rules as sales territories.

   In this example, in the Assignment Rules List view, you create four assignment rules, one for each territory, as shown in Figure 5–4.

2. Determine the assignment criteria.

   In this example, in the Assignment Criteria view, you define Account State as the criteria for each assignment rule, because the assignment rules are based on territories.

3. Define the criteria values.

   In this example, in the Assignment Criteria view, you use the states that make up each territory as criteria values.

   The following figure shows an example of defining a sales territory using assignment criteria and values as described in Steps 2 and 3.

4. Add the positions.

   In the Assignment Positions view, add the sales positions responsible for each territory. As an example, you add Division Manager - West and Field Sales Representative to the US Northwest assignment rule.

Note: To specify a primary position, you must set it at the rule level (in the Primary Position field in the Assignment Rules List view).

> **Tip:** The Primary Position field might be a hidden column. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*. You must also assign a specific position within that rule (in the Position Candidates list in the Assignment Rules List view).

5. Release the assignment rules.

In the Assignment Rules List view, click the Release button. You can then run Batch Assignment to assign objects affected by the assignment rules. For more information about running Batch Assignment, see "Running Batch Assignment" on page 9-28.

After these assignment rules are released, Assignment Manager assigns salespeople based on the geographic location of the sales opportunity. For example, a sales opportunity in California is assigned to a Western Field Sales Representative.

> **Note:** After an account or opportunity has been assigned to a sales team, the list of Territory definitions used by Assignment Manager for this item is added to the item record in the Territories field. This list cannot be edited in the standard user Account or Opportunity detail views.

For an example of how a sales organization can strategically distribute salespeople by using assignment rules based on territories and revenue, see "Example of Creating Sales Assignment Rules That Combine Criteria" on page 5-37.

Assignment Manager Behavior When All Assignment Rules Fail

If no qualifying assignment rules are found, that is, all evaluations fail, then Assignment Manager replaces the team and assigns the default position as the primary position. For example, assume that you run batch assignment on the Account assignment object without specifying an object WHERE clause. In this case, Assignment Manager processes all Account records. For each account, if no matching assignment rules are found, then Assignment Manager can potentially replace the account team with the default position. This behavior can ultimately result in the reassignment of all accounts.

Example of Creating Sales Assignment Rules That Combine Criteria

This topic is part of "Assignment Methodology and Examples for Creating Assignment Rules" on page 5-30.

This topic gives one example of how a sales organization can distribute its salespeople in the same geographic location based on revenue potential. You might use this feature differently, depending on your business model.

You can create territories that use the same geographic location but different revenue potentials. In this example, you might want to create two assignment rules: US Southwest High Revenue and US Southwest Low Revenue, as shown in Figure 5–5. Siebel Assignment Manager then assigns your salespeople, depending on both the geographic location and the revenue potential of the sales opportunity.

> **Note:** For detailed instructions on performing each step in the following procedure, see Chapter 5, "Assignment Rule Administration."

Figure 5–5   Example of Creating Assignment Rules with Combined Criteria

To create sales assignment rules that combine criteria

1. Create assignment rules.

   In this example, create two assignment rules, one for each territory, as shown in Figure 5–5.

2. Determine the assignment criteria.

   In this example, select Account State and Revenue as the criteria.

3. Define the criteria values.

   In this example, use the states that make up each territory as the Account States criteria values. For the Revenue criteria values, select different assignment attributes for each assignment rule:

   - For the US Southwest High Revenue assignment rule, type 100,001 in the Revenue Low assignment attribute.

   - For the US Southwest Low Revenue assignment rule, type 100,000 in the Revenue High assignment attribute.

   > **Note:** The columns that appear in the Values list change dynamically depending on the criteria selected in the Criteria list.

   The following figure shows an example of defining the US Southwest High Revenue assignment rule as described.

4. Add the positions for this assignment rule.

In this example, you add a different sales position for each assignment rule:

- For the US Southwest High Revenue assignment rule, add Division Manager - West.

- For the US Southwest Low Revenue assignment rule, add Western Field Sales Representative.

The figure shown in Step 3 shows an example of defining the US Southwest High Revenue assignment rule as described.

5. Release the assignment rules.

In the Assignment Rules List view, click the Release button. You might then run Batch Assignment to assign objects affected by the assignment rules. For more information about running Batch Assignment, see "Running Batch Assignment" on page 9-28.

After these assignment rules are released, Assignment Manager assigns salespeople based on the geographic location and revenue potential of the sales opportunity. For example, a sales opportunity in Nevada with a revenue potential of over $100,000 is assigned to the western division manager. However, a sales opportunity in New Mexico with a revenue potential of $100,000 or lower is assigned to a western field sales representative.

Example of Creating Assignment Rules for Service Organizations

This topic is part of "Assignment Methodology and Examples for Creating Assignment Rules" on page 5-30.

This topic gives one example of how to create assignment rules for a service organization. You might use this feature differently, depending on your business model.

Use the following strategy to develop assignment rules for your service organization:

1. Determine the different assignment objects to be assigned.

Service organizations have to assign ownership of a wide variety of tasks. These tasks might include service requests, activities, and accounts. In addition, a product development organization might have to assign ownership of product defects to engineers. For instance, you might decide to assign only service requests and product defects, because the associated activities are manually assigned by owners of those objects.

2. Determine if multiple assignment objects are assigned using the same assignment rules.

Multiple assignment objects can be assigned using the same assignment rules. For example, if you are assigning accounts and service requests in the same manner, then you can use the same assignment rules by associating those rules with multiple assignment objects.

3. For each assignment object, determine which of the objects is assigned using the same assignment rules.

The Compare to Object comparison method allows you to assign different groups of objects using different rules. Typically, complex service environments assign different groups of service requests using different rules, such as segmenting the service requests based on service request priority.

4. Determine the strategy for each group of objects to be assigned using the same assignment rules.

   Use the skill criteria to minimize the number of assignment rules. One assignment rule can match different candidates to various objects based on the object characteristics and candidate skills. To determine optimal assignment, determine the criteria that you want to evaluate for each candidate to make sure that the candidate possesses the proper skills to handle the task. These criteria would be the primary type of criteria that you would use most frequently for implementing assignments in a customer service environment. These criteria are defined using the Compare Object to Person comparison method in the Assignment Criteria view.

5. Define workload rules.

   Determine the various methods of calculating workloads for employees in your organization. Each workload rule is associated with a specific assignment object. For instance, you can define two workload rules to calculate:

   ■ Open Service Requests for an employee

   ■ Critical Service Requests submitted through Siebel eService

6. Define assignment rules, assignment criteria, assignment criteria values, and assignment workloads.

   Using the strategy, rules, and criteria discussed previously, define the assignment rules and the corresponding detail using assignment administration views. In defining rules, criteria, values, and workloads, you can specify scores for each component. These scores are aggregated in determining the total score for each candidate of an assignment rule.

7. Define static and dynamic candidates.

   For static candidates, define eligible employees for assignment by using the Administration - Assignment screen and the Assignment Rules views Employee Candidates, Position Candidates, or Organization Candidates (or use the All People value in the Person Candidates Source field or the All Organizations value in the Organization Candidates Source field). For dynamic candidates, choose the appropriate value from the Person Candidates Source field.

   You might further restrict or weight employees who have different skills using the Compare to Person assignment criteria.

8. Define employee skills.

   After the assignment rules and the corresponding details have been defined, a customer service manager must update the employee skill information (such as product expertise, language skills, and geography). Assignment Manager uses these attributes when evaluating Compare to Person and Compare Object to Person assignment criteria.

9. Release the assignment rules.

In the Assignment Rules view, click the Release button. You can then run batch assignment to assign objects affected by the assignment rules. For more information about running Batch Assignment, see "Running Batch Assignment" on page 9-28.

Figure 5–6 shows a sample assignment rule for assigning support representatives to a service request.

Figure 5–6   Assignment Rule for a Service Organization

The assignment rule shown in Figure 5–6:

- Matches any service request:
    - For Pentium III 600 products
    - With a priority of High
- Uses two criteria with the following values:
    - **Product Wildcard.** A list of products that include the value CPU Pentium III 600
    - **Service Request Priority.** A list of service requests whose priority level is High

About Assignment Criteria

Assignment criteria are sets of conditions describing the attributes of objects or candidates, or both, that are evaluated to determine optimal assignment. Assignment rules use criteria to determine which candidates qualify as potential assignees. Criteria also determine which assignment rule is evaluated in assigning an object. An assignment rule can include none, one, or many criteria.

Assignment criteria define attributes that can be used in assignment criteria records. Assignment criteria appear in the picklist that is displayed when you click in the Criteria list column (in the Criteria subview) when editing an assignment criterion record in Siebel Business Applications.

This topic contains the following information:

- "Assignment Criteria Comparison Methods" on page 5-41
- "Assignment Criteria Inclusion Methods" on page 5-43
- "About Assignment Scoring" on page 5-44
- "About the Required Field for Assignment Criteria" on page 5-45
- "Removing Assignment Criteria from Assignment Rules" on page 5-47

Assignment Criteria Comparison Methods

This topic is part of "About Assignment Criteria" on page 5-41.

Siebel Assignment Manager uses criteria comparison methods to qualify objects or candidates, or both, for an assignment rule. Attributes (object or candidate) can be either attributes or skills, depending on the criterion value.

> **Note:** Assignment criteria are evaluated as an attribute first, and then as a skill.

Table 5–15 lists the different requirements for each comparison method.

Table 5–15   Assignment Criteria Comparison Methods

Comparison Method	Description
Compare to Object	Compares criteria values to object attributes. The criterion passes if the objects possess the criteria values.
	For example, Account Zip Code = 94040.
Compare to Person	Compares criteria values to skills of person candidates (employees or positions). Person candidates that possess the skills required by the criterion qualify for this criterion.
	For example, Language = ENU.
	Note: With this comparison method, you have to list criteria values in the Values list under Criteria.
Compare Object to Person	Compares object attributes to skills of person candidates (employees or positions). Person candidates that possess the skills required by the object qualify for this criterion. For example, product means compare the product of the opportunity and the product skills of the person or position.
	Note: With this comparison method, you do not have to list criteria values in the Values list under Criteria.
Compare to Organization	Compares criteria values to organization skills. Organizations that possess the skills required by the criterion qualify for this criterion.
	For example, Type = Gold-level partner.
Compare Object to Organization	Compares object attributes to organization skills. Organizations that possess the skills required by the object qualify for this criterion. For example, *ZIP Code* means compare the ZIP Code of the service request and the ZIP Code of the organization.
	Note: With this comparison method, you do not have to list criteria values in the Values list under Criteria.

Depending on the comparison method, candidates that meet the criteria have the criteria score added to their total score, as follows:

- The total score from all criteria of the Compare to Object type that pass is added to all qualifying person and organization candidates.

- The person candidates get the score from the Compare to Person and Compare Object to Person criteria and values they pass.

- The organization candidates get the score from the Compare to Organization and Compare Object to Organization criteria and values they pass.

> **Note:** Assignment rules can be created with no criteria. A rule of this nature functions to make sure that data items of a particular type are assigned, that is, that all objects of the defined type pass. Use such rules carefully, because a rule defined with no criteria can make unnecessary assignments.

> **Caution:** In general, it is recommended to avoid creating rules with no criteria using batch assignment mode. This mode can produce a very large number of assignments, because all objects in the database that have rules with no criteria pass and are assigned in this mode. Such an increase can result in a backlog of requests that might cause the whole environment to stop working if the database or file system runs out of space.

Assignment Criteria Inclusion Methods

This topic is part of "About Assignment Criteria" on page 5-41.

You specify criteria inclusion methods for assignment rules to determine how criteria values and candidates will be matched. Assignment criteria use inclusion methods to:

- Determine how many criteria values must be met to pass the criterion

- Determine how the score of the criterion values are added to the candidate's score

Table 5–16 shows the types of assignment criteria inclusion methods.

Table 5–16   Assignment Criteria Inclusion Methods

Inclusion Method	Comments
Include	At least one value must match: - For Compare to Object, the object attribute must match at least one listed criteria value. - For Compare to Person, the person attribute must match at least one listed criteria value. - For Compare to Organization, the organization attribute must match at least one listed criteria value. - For Compare Object to Person, at least one value of the person attribute must match one value of the object attributes. - For Compare Object to Organization, at least one value of the organization attribute must match one value of the object attributes. Assignment Manager stops processing criteria when one value is matched and the score of the matching criterion value is added to the candidate's score.

Table 5–16   (Cont.) Assignment Criteria Inclusion Methods

Inclusion Method	Comments
Include All	All values must match: ■ For Compare to Object, the object attribute must match all listed criteria values. ■ For Compare to Person, the person attribute must match all listed criteria values. ■ For Compare to Organization, the organization attribute must match all listed criteria values. ■ For Compare Object to Person, all values of the person attribute must match all values of the object attribute. ■ For Compare Object to Organization, all values of the object attribute must match all values of the organization attribute. If the criterion is met, then all the criteria value scores are added to the candidate's score. However, if just one of the criteria is not met, then Assignment Manager stops processing the rule.
Include All Matching	This inclusion method matches in the same manner as the Include inclusion method, that is, at least one value needs to match. However, unlike the Include method, Assignment Manager continues to process this criterion until all criterion values are exhausted. As a result, the scores from all passing criterion values are added to the candidate's score. **Note:** The Include All Matching inclusion method matches like the Include inclusion method, but scores like the Include All inclusion method.
Exclude	None of the values must match: ■ For Compare to Object, the object attribute must not match any of the listed criteria values. ■ For Compare to Person, the person attribute must not match any of the listed criteria values. ■ For Compare to Organization, the organization attribute must not match any of the listed criteria values. ■ For Compare Object to Person, no values of the person attribute can match any values of the object attribute. ■ For Compare Object to Organization, no values of the organization attribute can match any values of the object attribute. **Note:** The Exclude inclusion method excludes criterion value scores. If the criterion is met, then only the criterion score is added to the candidate's score.

About Assignment Scoring

This topic is part of "About Assignment Criteria" on page 5-41.

Siebel Assignment Manager determines which candidates are assigned to objects by applying scores to potential candidates. Assignment Manager then ranks the candidates based on their scores and selects assignees based on the assignee filter. Assignment Manager calculates the total score for each candidate from each assignment rule from the:

■ Assignment rule score

■ Assignment criteria score

■ Assignment criteria values score (according to the appropriate inclusion method)

■ Workload criteria score

■ Employee, position, or organization score (depending on the candidate)

> **Note:** Before implementing Assignment Manager, carefully consider the value for each score. Use scores to assign weights to your criteria. If there are multiple criteria, then assign a higher score to the more important attributes. Doing this is especially useful for finding the best match when not all criteria are required.

Using Siebel Tools, you can configure Assignment Manager to save the scores of candidates that are assigned to an object. Other Siebel Business Applications modules can then access the saved candidate scores for various purposes. For example, you might want to produce analysis reports for employee utilization. Alternatively, you can expose the scores to users for review and sorting.

The scores of each candidate are stored in the appropriate team table by specifying the Employee Team Score Column, Position Team Score Column, and Organization Team Score Column for the assignment object. Team member scores are written independently for each type of candidate (employees, positions, and organizations).

You can also configure Assignment Manager to add scores across assignment rules. For more information about this, see the Add Scores across Rules (AddScores) parameter in "Configuring Siebel Assignment Manager to Add Scores Across Rules" on page 10-30.

> **Note:** Typically, you plan your scoring methodology during the design phase. However, you can add scores to assignment rules at any time. You must release the rules in order for the changes to take effect.

About the Required Field for Assignment Criteria

This topic is part of "About Assignment Criteria" on page 5-41.

The Required field on an assignment criterion gives you the ability to make certain that an object or candidate meets this criterion for the assignment rule. If so, then the candidate's score is increased, giving that candidate a better chance of being assigned.

You make an assignment criterion required or not required by selecting one of the following choices from the picklist in the Required field in the Criteria list for the assignment rule: Always, Never, or When Available.

Required Assignment Criteria

With a *required criterion*, the object or candidate must meet this criterion. You can make a criterion required by selecting Always from the picklist in the Required field.

■ For a criterion with a Compare To Object comparison, if the object does not have the attribute to satisfy the criterion, then that assignment rule fails and none of the candidates from that rule qualify for assignment.

■ For person-based criterion (with a Compare To Person or a Compare Object to Person comparison method), if the criterion is not met, then that person candidate fails and does not qualify for that assignment rule. Therefore, further person-based criteria are not evaluated for that person candidate.

■ For an organization-based criterion (with a Compare To Organization or a Compare Object to Organization comparison method), if the criterion is not met, then that organization candidate fails and does not qualify for that assignment

rule. Therefore, further organization-based criteria are not evaluated for that Organization candidate.

For example, an assignment rule can have a required assignment criterion based on service request severity, with a Compare to Object comparison method and a criteria value of 1-Critical. In this case, if the object to be assigned has a service request severity of 1-Critical, then the object qualifies for the assignment rule. An object without a service request severity value or that has a different service request severity value does not qualify for this assignment rule.

Required When Available Assignment Criteria

With a *required when available assignment criterion*, the object or candidate must meet this criterion if the object or candidate has the attribute available. You can make a criterion required when available by selecting When Available from the picklist in the Required field.

For example, an assignment rule can have a required when available assignment criterion based on service request severity, with a Compare to Object comparison method and a criteria value of 1-Critical. In this case, if the object assigned has a service request severity of 1-Critical, then the object qualifies for the assignment rule. An object that has a lower service request severity value does not qualify for the assignment rule. However, an object without a service request severity value does qualify for the assignment rule, because the criteria value is NULL, or not available.

Note: If an assignment criterion uses a Compare Object to Person or a Compare Object to Organization comparison method, and has Required set to When Available, but the attribute value does not exist on a person or organization, this criterion fails. This behavior is different than when the Compare to Object comparison method is used, in which case the criterion would pass.

Nonrequired Assignment Criteria

Use a *nonrequired assignment criterion* to further determine a suitable match between candidates and assignment rules. You can make criteria nonrequired by selecting Never from the picklist in the Required field.

Use nonrequired criteria that include scores to apply scores to candidates. If an assignment rule satisfies the criteria, then these scores are added to the total scores of the candidates for this assignment rule. By using nonrequired criteria with scores, you can add a higher score to candidates that satisfy this criteria, while keeping candidates that do not satisfy the criteria.

- If a candidate fails a nonrequired criterion, then no score is added to the candidate; however, the candidate does not fail. Person candidates are evaluated for the rest of the person-based criteria and organization candidates are evaluated for the rest of the organization-based criteria.

  For example, use service-related criteria (such as Service Request Priority) for an assignment rule that is applied to service-related objects (such as Service Request). If you create an assignment rule with Server Request Priority as a nonrequired criteria, then Assignment Manager does not qualify any accounts for the criteria, because Service Request Priority does not apply to accounts.

- If an assignment rule uses only nonrequired assignment criteria, then the assignment rule passes even if the minimum score for the rule is not satisfied,

because the assignment criteria are not required. To avoid this behavior, you can alter Assignment Manager so that assignment rules pass only when the minimum score for the rule is satisfied, even if the assignment criteria are not required.

■ To require that an assignment rule satisfies the minimum score for the rule to pass, you can use the UseRuleMinScore parameter. If you set this parameter to TRUE, then each assignment rule score must be equal to or greater than the rule minimum score to pass. Also, candidates must have a total score from the rule greater than or equal to the rule minimum score in order to qualify for that rule as well.

■ When running the Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) components from the Server Manager command-line interface (srvrmgr), you can change the value for the UseRuleMinScore parameter. For dynamic assignment, you change the default value of the UseRuleMinScore parameter in the Assignment Request (In Process) workflow policy.

Removing Assignment Criteria from Assignment Rules

This topic is part of "About Assignment Criteria" on page 5-41.

In some cases, you might want to eliminate assignment criteria that appear in the Assignment Criteria view. To do so, you must remove the unwanted criteria from the Assignment Criteria view as well as use Siebel Tools to disable the corresponding assignment attribute, assignment attribute column, assignment criteria, and assignment criteria attribute object definitions.

Use the following procedure to remove unwanted criteria from the Assignment Criteria view.

To remove unwanted criteria from an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, select the assignment rule for which you want to remove criteria.

3. Click the Criteria subview.

4. In the Criteria list, delete any criteria that you want removed.

5. Perform the tasks described in "About the Relationship Between Attributes and Skills" on page 6-32.

> **Note:** If you want to remove criteria from the list of values (LOV) field, then you must use Siebel Tools to perform Step 5. However, removing the criteria from the rule itself is often sufficient to make certain the criteria is no longer used for the rule.

Process of Adding Criteria and Values to Assignment Rules

You can add criteria and criteria values to your assignment rules to evaluate and assign candidates.

> **Note:** Assignment rules can be created with no criteria. A rule of this nature functions to make sure that data items of a particular type are assigned, that is, that all objects of the defined type pass. Use such rules carefully, because a rule defined with no criteria can make unnecessary assignments.

To add criteria and criteria values to assignment rules, perform the following tasks:

1. "Adding Assignment Criteria to Assignment Rules" on page 5-48

2. Do one of the following:

   - "Adding Criteria Values to Assignment Criteria" on page 5-51

   - "Adding Criteria Values as Skills to Assignment Rules Using Expertise Codes" on page 5-60

Adding Assignment Criteria to Assignment Rules

This topic explains how to add assignment criteria to assignment rules.

This task is a step in "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58 as well as a step in "Process of Defining Assignment Rules" on page 5-3.

Criteria are sets of conditions describing the attributes of objects or candidates, or both, that are evaluated to determine optimal assignment. Criteria are the fundamental building blocks for assignment rules. An assignment rule can contain none, one, or many criteria. Assignment rules use criteria to determine which candidates qualify as potential assignees. Criteria also determine which assignment rule is evaluated in assigning an object.

> **Note:** Assignment rules can be created with no criteria. A rule of this nature functions to make sure that data items of a particular type are assigned, that is, that all objects of the defined type pass. Use such rules carefully, because a rule defined with no criteria can make unnecessary assignments.

To add an assignment criterion to an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to create an assignment criterion, and then click the Criteria view tab (if not already active).

3. In the Criteria list, click New.

4. In the new criterion record, click in the available fields to enter the relevant information.

> **Note:** If you want to query for an assignment criterion, then you must use the name of the assignment criterion, not the display name for the assignment criterion object that you configured using Siebel Tools. For example, if the name of the Account assignment criteria is ACCOUNT_ID, then you must use this name for your query, although the display name is Account. Similarly, do not use display names when querying seed assignment criteria.

Table 5–17 shows the predefined fields for assignment criteria.

Table 5–17   Assignment Criteria Predefined Fields

Field Name	Description	Example Value
Rule Criterion	The criteria evaluated for the assignment rule.	Product Defect Priority
Comparison Method	Methods used by Assignment Manager to determine how objects and candidates are matched. Choices are: ■ Compare to Object ■ Compare to Person ■ Compare Object to Person ■ Compare to Organization ■ Compare Object to Organization For explanations of each method, see "Assignment Criteria Comparison Methods" on page 5-41. **Note:** For assignment criteria that use the Compare to Object, Compare to Person, or Compare to Organization comparison method, each criteria includes one or more values.	Compare to Object
Inclusion	Methods used by Assignment Manager to determine how criteria values and candidates are matched. Choices are: Include, Include All Matching, Include All, and Exclude. For more information about each inclusion method, see "Assignment Criteria Inclusion Methods" on page 5-43. **Note:** Depending on the Inclusion method, candidates that meet the criteria value have the criteria value score added to their total score. Criteria values can be defined as constants or can use wildcard characters to include a wider selection of potential matches between assignment rule and object.	Include
Required	Determines whether the criteria is required. Choices are: ■ Always ■ When Available ■ Never For detailed information about the required field, see "Adding Assignment Criteria to Assignment Rules" on page 5-48.	Always

Table 5–17   (Cont.) Assignment Criteria Predefined Fields

Field Name	Description	Example Value
Score	Score for this criteria. Candidates that satisfy this criteria have this score added to their total score. For more information about how you can use the criteria score, see "Assignment Criteria Comparison Methods" on page 5-41.	Not applicable
Minimum Score	Minimum score required to qualify for this criterion. This field can be left blank. If the total score from all matching criterion values (calculated based on the inclusion method for the rule) is greater than or equal to the minimum score specified for the criterion, then the criterion passes.	Not applicable
Inherited	If selected, then this indicates that the criterion was inherited from a parent rule. This is a read-only field. **Note:** If the Inherited flag for a criterion is TRUE in the Administration - Assignment view, then the Read Only flag is TRUE in the Administration - Delegated Assignment views. **Tip:** The Inherited field might be a hidden column in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.	Not applicable
Template	If selected, then Assignment Manager excludes the criterion when processing rules. Assignment Manager does not process criteria templates until an inheritor of an assignment rule chooses to apply a template to the inherited rule. For more information about applying criteria templates, see "Adding Criteria Templates to Assignment Rules" on page 8-12. **Note:** When a rule with a criterion using a template is inherited, the criterion is not automatically inherited with the other criteria. You must explicitly apply the criterion to the inherited rule. After the criterion is applied to the inherited rule, you can modify the criterion as you would any other criteria. **Tip:** The Template field might be a hidden column in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.	Not applicable

Table 5–17   (Cont.) Assignment Criteria Predefined Fields

Field Name	Description	Example Value
DA Read Only	If selected, makes a criterion read-only for delegated administrators. By checking this field, the assignment administrator (AA) makes sure the criterion is read-only to all users who view the rule from the delegated assignment views, including the owner of that child rule group.	Not applicable
	For example, if the AA creates Rule A in a rule group and that rule is inherited as Rule B in a child rule group, then the AA can add a criterion to Rule B and make it read-only. The owner of the child rule group cannot change this setting. Without this flag, the owner of the child rule group could delete that criterion because it was not inherited from the parent rule.	
	Note: If the DA Read Only field for a criterion is TRUE in the Administration - Assignment view, then the Read Only flag is TRUE in the Administration - Delegated Assignment view.	
	Tip: The DA Read Only field might be a hidden column in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.	

Figure 5–7 shows an example of an assignment criterion using the values from Table 5–17. This example shows an always-required Product Defect Priority rule criterion for an assignment rule that is compared to service objects using the Include inclusion method.

Figure 5–7   Example of an Assignment Criterion

Adding Criteria Values to Assignment Criteria

This topic explains how to add criteria values to assignment criteria. Each assignment criterion has one or more criteria attributes (values) that are shown as columns in the Values list.

This task is a step in "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58 as well as a step in "Process of Defining Assignment Rules" on page 5-3.

About Criteria Values

Criteria values are details associated with criteria that are compared to an object or candidate. For assignment criteria that use the Compare to Object, Compare to Person, or Compare to Organization comparison method, each criterion includes one or more criteria values. A value represents the actual string, number, or date that is used in

matching. Criteria values can be based on MLOVs, picklists (a pop-up pick applet from where you can choose a record), or simple free text fields.

Depending on the inclusion method, candidates that meet the criteria value have the criteria value score added to their total score. Criteria values can be defined as constants or can use wildcard characters to include a wider selection of potential matches between assignment rule and object.

Some predefined criteria values available dynamically based upon the criterion you select, or you can create your own criteria values using Siebel Tools. Each criteria value can include one or more attributes. For example, the Account City State Country criterion has three attributes: one each for City, State, and Country. This type of criterion is known as a composite criterion. Each of the assignment attributes appear as list columns in the Values list under Criteria. For more information about assignment attributes, see "Creating Assignment Attributes" on page 6-16.

Criteria values are considered differently when child components are involved. For example, consider a rule that uses both of the following criteria on the attributes coming from an Opportunity component. Assume also that both criteria are configured to be available to the Account and Opportunity assignment objects:

```
Opty Criteria1 = value1
Opty Criteria2 = value2
```

Consider the following two scenarios:

- Scenario 1: When the rule assigns to the Opportunity object

  The Opportunity component, in this context, is the primary component. Both criteria work on the same record, so the opportunity record must match both criteria if it is to be assigned.

- Scenario 2: When the rule assigns to the Account object

  The Opportunity component, in this context, is the child component of the Account object. All the opportunity records associated with the account represent one entity (a particular account), so the criteria are evaluated on all child records. If only one of the child records matches, then the criteria match. As a result, the rule passes if one of the opportunities matches Opty Criteria1, and one of the opportunities matches Opty Criteria2.

To add criteria values to an assignment criterion

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, select a rule, and click the Criteria tab.

3. With the appropriate assignment criterion selected in the Criteria list, scroll down to the Values subview.

4. In the Values list, click New.

5. In the new record, click in the available fields to enter the relevant information.

   Note: The assignment attributes for criteria values that are available differ depending on the assignment criterion that you select in Step 2.

You define different types of criteria values depending on the assignment attribute. For example, criteria values might:

- Appear as list of value (LOV) fields from which you choose a value (such as Account State).

- Show a pick dialog box from which you choose a value (such as Account).

- Represent numbers which you choose using the calculator button.

- Represent dates which you choose using the calendar select button.

Table 5–18 shows examples of assignment attributes for the assignment criterion created in "Adding Assignment Criteria to Assignment Rules" on page 5-48.

Table 5–18   Available Assignment Attributes

Criteria Value	Example
Score	10
	6
Product Defect Priority	1 (Very High)
	2 (High)

Avoiding Duplicate Assignment Criteria Values

It is possible to create duplicate criteria values for an assignment criterion. If both criteria values use scores in this case, then both scores are added to the assignment criterion if the criteria value passes. This result can occur when you create criteria values that use ranges, such as criteria values for the Revenue assignment criterion.

Note: It is recommended that you do not create duplicate criteria values for the same assignment criterion, even though Assignment Manager allows this. If both criteria values use scores and you use the Include inclusion method, then the score added to the passing candidate might be inconsistent. If you use the Include All or Include All Matching inclusion method, then both the scores are added to the passing candidate.

Using Wildcard Characters When Defining Criteria Values

Wildcard characters can also be used when defining specific criteria values. This option allows for a greater range of assignment object matches. For example, if you create an assignment rule for Account objects with the Account City as assignment criteria, then the corresponding criteria value City can be defined as A*. This setting matches Accounts in cities beginning with the letter A.

If a criterion value includes the special characters ?, *, and \ that are used as literals, the escape identifier character (\) must be added before *each* special character in the value field. For example, the criteria value *Tri*Laptop* is entered into the Values field as *Tri*Laptop*.

Criteria values that include alphanumeric entries are stored as string values. These values are sorted lexicographically, that is, in dictionary order, when determining specific ranges for assignment rules. For example, the value AB10 is sorted between AB1 and AB9, even though you might require AB10 to be placed greater than AB9.

Figure 5–8 shows an example of creating Product Defect Priority criteria values using the procedure in "Adding Criteria Values to Assignment Criteria" on page 5-51 and the values in Table 5–18.

Figure 5–8   Example of Adding Criteria Values to an Assignment Criterion

About Assignment Skills, Expertise Codes, and Weighting Factors

Siebel Assignment Manager provides predefined skills, expertise codes, and weighting factors. These optional building blocks allow you to determine the criteria that you want to evaluate for each candidate to make sure that potential candidates possess the proper skill set to handle the task.

Assignment Skills

A skill is an attribute associated with a person, organization, or base table row. Assignment Manager can perform assignments based on skills by associating the skills with employee, position, and organization candidates. For example, if an employee speaks English and Spanish, then language is the skill he or she possesses, and English and Spanish are the *skill items*. Employee, position, and organization skills are used to store skills possessed; the skill tables for objects are used to store skills required. Assignment Manager uses skill tables to do skill matching by comparing the skills on the object with the skills of an employee, position, or organization to determine who passes the rule.

The Siebel Business Applications provide predefined skills, however, you can create new skills using Siebel Tools. You enable and configure skills at the criteria level using Siebel Tools. After skills are enabled, Assignment Manager matches skills based on the assignment criteria comparison method in the same manner in which other attributes are matched. Assignment Manager applies scores and other filters to find the best candidate after a match is made.

Expertise Codes

Expertise codes define an employee's expertise level for a particular skill item. For example, an employee might have an *Expert* level expertise in networking products but only a *Novice* level expertise in printer products. You apply expertise codes to skills to eliminate underqualified candidates. Assignment Manager uses expertise codes to match an assignment object to people.

After you select an expertise code for a skill, Assignment Manager matches assignment rules based on the assignment criteria comparison method. Table 5–14 shows the different results based on those methods.

Table 5–19   How Assignment Rules Are Matched Based on Expertise Code and Comparison Methods

If the Criteria Comparison Method Is …	Then the Assignment Rule Passes if the …
Compare to Object	Skill's expertise code is equal to, or higher than, the object's expertise code.
Compare Object to Person	Candidate's expertise code is equal to, or higher than, the object's expertise code.
Compare Object to Organization	Organization's expertise code is equal to, or higher than, the object's expertise code.
Compare to Person	Candidate's expertise code is equal to, or higher than, the skill's expertise code.
Compare to Organization	Organization's expertise code is equal to, or higher than, the skill's expertise code.

For more information about assignment criteria comparison methods, see "Assignment Criteria Comparison Methods" on page 5-41.

Weighting Factors

Optionally, you can apply weighting factors to expertise codes. Although you can use expertise codes to eliminate underqualified candidates, using weighted expertise codes allows you to weigh skill scores to find the most suitable candidate by further eliminating overqualified candidates. For example, you might not want to assign an expert to a service request that can be handled by a novice.

Using weighted expertise codes allows you to prevent assigning objects to overqualified candidates by applying a weight to the skill score. Each expertise code has a defined value, which is its weighting factor. The expertise code with the highest defined weighting factor represents the maximum weighting factor (Max Weighting Factor).

The weighting applied to a skill or criteria score is the percentage defined by an expertise code's weighting factor over the maximum weighting factor. For an example, see Table 5–20.

Weighted scores are calculated differently based on the comparison method chosen for the assignment rule:

■　For the Compare to Person, Compare to Object, and Compare to Organization comparison methods, the weighted score is determined as follows:

Score = Criteria Score + Skill Score times (Weighting Factor divided by Max Weighting Factor)

■　For the Compare Object to Person and Compare Object to Organization comparison methods, because neither of these comparison methods can define skill scores, the weighted score is determined as follows:

Score = Criteria Score times (Weighting Factor divided by Max Weighting Factor)

> **Note:** When you are using the Compare Object to Person or the Compare Object to Organization comparison method, weighting factors are applied only if the expertise code is defined for both the object assignment skill item and the candidate skill item. If the expertise code is not defined for both, then the weighting factors are excluded.

Assignment Manager applies the weighted skill scores and other scores to find the most suitable candidate when a match is made.

Scenario for Using Assignment Skills

This scenario provides an example of how Siebel Assignment Manager can automatically route a service request (SR) to the most qualified field service representative. Your company might follow a different process according to its business requirements.

A software application company places a call to your call center stating they have a malfunctioning cable modem. To handle the incoming request, a call center service agent creates an SR, and then associates that service request with the Cable Modem PL/12 product. Based on the predefined assignment rule, Assignment Manager automatically assigns the SR to the most qualified field service representative who has expertise with this cable modem product line.

Associating Skills with Employees, Positions, and Organizations

You use skills to find the best matching candidates to assign to assignment objects. Skills can be associated with individual employees, positions, or organizations. During the assignment process, Siebel Assignment Manager identifies candidates that have the relevant skills for assignment to a particular item. For example, a service request requiring an agent who has expertise for a particular product is routed to someone who has that product expertise as a part of his or her skill set.

This task is a step in "Process of Defining Assignment Rules" on page 5-3.

You enable and configure skills at the criteria level by using Siebel Tools. For more information about defining criteria for skills, see "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58.

> **Note:** Assignment Manager caches employee, position, and organization skills when the Siebel Server is started. Every time rules are released, employee, position, and organization skills are updated and cached. If you want to automatically refresh employee, position, and organization skills at a periodic interval, then set the value of Refresh people skills interval (the MaxSkillsAge parameter for the Assignment Manager component) to the desired interval of update.

Associating Skills with an Employee

Use the following procedure to associate skills with an employee.

To associate skills with an employee

1. Navigate to the Administration - User screen, and then the Employees view.

2. In the Employees list, drill down on the employee for whom you want to define skills, and then click the Assignment Skills tab.

3. In the Assignment Skills list, click New to add a new record.

4. In the Skill field, select a skill from the drop-down list.

5. In the Assignment Skill Items list, click New to add a new record, and then complete the necessary fields.

    The columns that display in the Employee Skill Items list depend on the skill chosen from the drop-down list in the Assignment Skills list.

    > **Note:** Employees can also track and update their own skill profiles in the User Preferences Profile view (navigate to the User Preferences screen, then User Profile, and then Assignment Skills).

Associating Skills with a Position

Use the following procedure to associate skills with a position.

To associate skills with a position

1. Navigate to the Administration - Group screen, and then the Positions view.

2. In the Positions list, drill down on the position for which you want to associate skills.

3. In the Assignment Skills list, click New.

4. In the Item field, select a skill from the drop-down list.

5. Scroll down to the Position Skill Items list, click New to add a new record, and then complete the necessary fields.

    > **Note:** The columns that display in the Position Skill Items list depend on the skill chosen from the drop-down list in the Assignment Skills list.

Associating Skills with an Organization

Use the following procedure to associate skills with an organization.

To associate skills with an organization

1. Navigate to the Administration - Group screen, and then the Organizations view.

2. In the Organizations list, drill down on the organization for which you want to associate skills.

3. In the Assignment Skills list, click New.

4. In the Item field, select a skill from the drop-down list.

5. Scroll down to the Organization Skill Items list, click New to add a new record, and then complete the necessary fields.

    > **Note:** The columns that display in the Organization Skill Items list depend on the skill chosen from the drop-down list in the Assignment Skills list.

Example of Using Assignment Skills in Assignment Rules

This topic gives one example of using skills to determine who passes an assignment rule. You might use this feature differently, depending on your business model.

The following procedure explains how to configure Siebel Assignment Manager so that only employees who speak Spanish are assigned a service request.

> **Note:** By default, skill and skill item tables for service requests (S_ SR_SKILL and S_SR_SKILL_IT) are not mapped to business components. To support working with skills and skill items for service requests in Siebel Business Applications, map these tables to business components and configure applets and views to expose these types of data in the application user interface. The procedure below involves working with skills and skill items for service requests but omits user interface details for entering these types of data. For more information about configuring Siebel Business Applications, see *Configuring Siebel Business Applications*.

To configure Assignment Manager to assign a service request only to employees who speak Spanish

1. Create a service request with Language as the skill and Spanish as the skill item.

   a. In the Service Request skill table for the service request, create one record and specify Language as the skill.

   b. In the child Service Request skill item table, create one record and specify Spanish as the skill item.

2. Create an assignment rule that filters employees based on their language skills.

   a. Create an assignment rule and apply the Service Request assignment object.

   b. Create a criterion called Language and use the Compare to Person assignment rule comparison method.

      This criterion, and therefore the rule, passes only employees who have the Spanish language skill.

      > **Note:** This example uses the Compare to Person comparison method. However, skill matching can be used with other comparison methods. For more information about comparison methods, see "Assignment Criteria Comparison Methods" on page 5-41.

Assignment Manager can also do skill matching with expertise codes and can use weighting factors to assign weighted scores to different expertise codes. For more information about skill matching using expertise codes and weighting factors, see "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58.

Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors

You define skills in the same manner as you define criteria values. Defining criteria values as skills with expertise codes is a preconfigured feature of assignment criteria

values and works with assignment rules for service objects (or any other object that you configure to use skills). By default, sales objects do not use skills.

To define criteria values as skills with expertise codes and weighting factors, perform the following tasks:

1. (Optional) "Creating Expertise Codes for Skills" on page 5-59

2. "Adding Criteria Values as Skills to Assignment Rules Using Expertise Codes" on page 5-60

3. (Optional) "Defining Weighting Factors for Expertise Codes" on page 5-61

These tasks are one step in "Process of Defining Assignment Rules" on page 5-3.

> **Note:** Criteria and skills need the *same* Assignment Criteria Attribute enabled for Assignment Manager to perform skill comparison. For more information about enabling Assignment Criteria Attributes, see "Creating Assignment Criteria Attributes for Assignment Criteria" on page 6-24.

Creating Expertise Codes for Skills

Expertise codes apply only to skills and are global; after they are defined, assignment criteria share the same set of expertise codes. Expertise codes are predefined for the following skill types (assignment criteria):

- Language Code
- Product
- Product Line
- Product Line Wildcard
- Product Wildcard

The three predefined expertise codes are Novice, Intermediate, and Expert. For most deployments, the predefined skills are sufficient, however, you can create new ones. Expertise codes are stored in (and can be modified, added to, or deleted from) the Administration - Data screen, and the List of Values view. To create new expertise codes, use the following procedure.

> **Note:** Perform the procedures in this topic only if the default expertise codes (Novice, Intermediate, and Expert) do not meet the requirements of your organization.

To create an expertise code

1. Navigate to the Administration - Data screen, and then the List of Values view.

2. In the List of Values list, click New.

3. In the new record, click in the fields to enter the relevant information for the expertise code:

   a. In the Type field, click the select button, query for EXPERTISE_CD in the Pick Value Type dialog box, and then click OK.

   b. In the Display Value field, type the name of the expertise code as you want it to appear.

    c. In the Language-Independent Code field, enter the exact value that you entered in Step b.

    d. In the Language Name field, click the select button to select the appropriate language in the Pick Language Name dialog box, and then click OK.

    e. In the Translate field, click to place a check mark (if not already checked).

    f. In the Order field, type a numerical value for the rank of the expertise code.

    The numerical value that you enter in this field determines the rank of the expertise code. Use a higher value to apply a greater rank to the expertise code, and a lower value to apply a lesser rank.

The new expertise value appears in the List of Values list and also becomes a valid expertise code selection in the criteria value drop-down menu when you define skills.

Figure 5–9 shows an example of creating a Manager expertise code that is ranked higher than the default expertise codes.

Figure 5–9 Example of Creating a New Expertise Code

Type	Display Value ▲	Language-Independent Code	Language Name	Parent LIC	Order	Active
> EXPERTISE_CD	Manager	Manager	English-American		40	✓
EXPERTISE_CD	Expert	Expert	English-American		30	✓
EXPERTISE_CD	Intermediate	Intermediate	English-American		20	✓
EXPERTISE_CD	Novice	Novice	English American		10	✓

Adding Criteria Values as Skills to Assignment Rules Using Expertise Codes

To add a criteria value as a skill to an assignment rule using expertise codes, select the desired expertise from the Expertise Code field in the Values list, as shown in Figure 5–10. The predefined expertise codes are: Novice, Intermediate, and Expert.

This task is a step in "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58 as well as a step in "Process of Defining Assignment Rules" on page 5-3.

To add a skill to an assignment rule using an expertise code

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to add a skill, and then click the Criteria view tab.

3. In the Criteria list, select New.

4. In the new criteria record, click in the available fields to enter the relevant information.

5. Scroll down to the Values subview, and then click New.

6. In the new values record, click in the available fields to enter the relevant information.

> **Note:** The assignment attributes for criteria values that are available differ depending on the assignment criterion that you select in Step 4. In the example in Figure 5–10, the assignment attributes are: Score, Product Line, and Expertise Code.

Figure 5–10 shows an example of creating a required Product Line Wildcard assignment criterion that is compared to candidates. This criterion requires a minimum score of 10 and the modem product line skill with an expertise level of Intermediate or better.

In this example, only candidates with an Intermediate or Expert level of expertise qualify for this skill and receive 20 points.

If the predefined expertise codes are not sufficient for your needs, then you can create new ones. To create new expertise codes, see "Creating Expertise Codes for Skills" on page 5-59.

Figure 5–10 Example of Adding a Skill with an Expertise Code
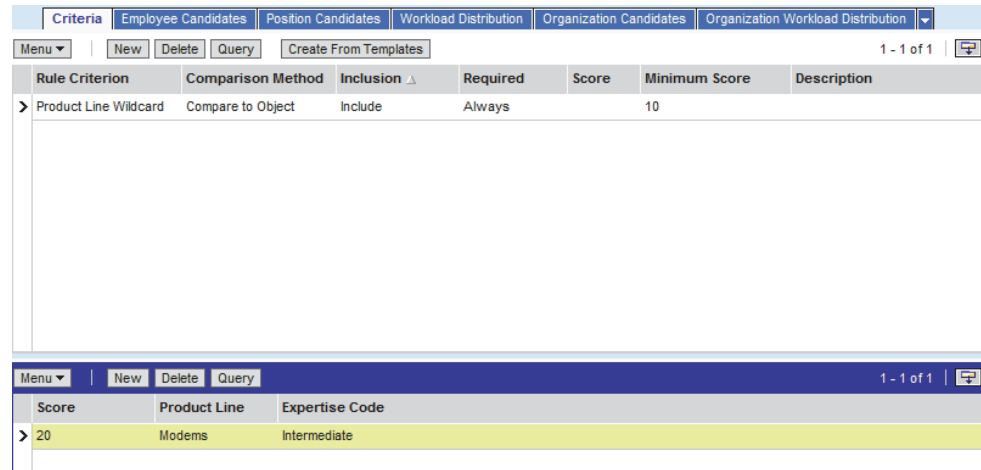
Defining Weighting Factors for Expertise Codes

Weighting factors for expertise codes apply only to skills and are global; after they are defined, assignment criteria share the same set of weighting factors for expertise codes. Weighting factors weigh expertise codes by applying a specified percentage to the skill score. Table 5–20 shows sample weighting factors that can be used for the three types of predefined expertise codes.

Table 5–20 Sample Weighting Factors for Expertise Codes

Expertise Code	Weighting Factor	Percentage of Skill Score
Novice	2	If skill is matched, then this adds 40% of score for the skill (or criteria value)
Intermediate	5	If skill is matched, then this adds 100% of score for the skill (or criteria value)
Expert	3	If skill is matched, then this adds 60% of score for the skill (or criteria value)

In this example, candidates with an Intermediate level of expertise for the matched skill are favored over other candidates, because they receive 100% of the skill score. This result might be desired if your organization has many more service representatives with an Intermediate level expertise than service representatives with an Expert level of expertise. In this case, you make sure that service requests that require only an Intermediate level of expertise are assigned to service representatives with that level of expertise.

> **Note:** Use weighting factors to adjust relative scoring for expertise; do not define separate criteria and scores for different expertise levels.

If you use weighting factors to weigh the expertise codes, then candidates with different expertise receive different scores. For example, if you use the weighting factors described in Table 5–20 and the expertise code defined in Figure 5–10, then:

- Candidates who possess an Intermediate level of expertise in the modem product skill receive 20 points and qualify for this criterion.

- Candidates who possess an Expert level of expertise receive 10 points and qualify for this criterion.

- Candidates who possess a Novice level of expertise fail this criteria (because an expertise level of Intermediate or better is required), and fail the assignment rule (because the criterion is required).

- Candidates who possess an Intermediate level of expertise are therefore favored, because they receive a higher score.

This task is a step in "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58.

Weighting factors for expertise codes are stored in (and can be modified, added to, or deleted from) the Administration - Data screen and the List of Values view.

To define weighting factors for expertise codes

1. Navigate to the Administration - Data screen, and then the List of Values view.

2. Display the list of values of type EXPERTISE_CD.

   a. In the List of Values list, click Query.

   b. In the Type field, click the select button.

   c. In the Pick Value Type dialog box, query for EXPERTISE_CD, click Go, and then click OK.

   d. In the List of Values list, click Go to complete the query.

3. For each of the resulting display values (default values are Novice, Intermediate, and Expert), click in the Weighting Factor field and enter a numerical value.

   The numerical value that you enter in this field, relative to the maximum weighting value defined, represents the percentage applied to the skill score.

   > **Tip:** If the Weighting Factor field might be a hidden column in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.

Figure 5–11 shows an example of defining the weighting factors for the default expertise codes using the values listed in Table 5–20.

Figure 5–11 Example of Defining Weighting Factors

	Type	Display Value	Language-Independent Code	Language Name	Parent LIC	Orde △	Weighting Factor	Active	Translate
>	EXPERTISE_CD	Novice	Novice	English-American		10	2	✔	✔
	EXPERTISE_CD	Intermediate	Intermediate	English-American		20	5	✔	✔
	EXPERTISE_CD	Expert	Expert	English-American		30	3	✔	✔

(List of Values | Menu ▾ | New Delete Query   Clear Cache   1 - 3 of 3)

How Siebel Assignment Manager Balances Workload Among Candidates

Workload distribution is a special criteria type that balances the load between candidates. You create workload distribution by adding workload rules in the Assignment Workload view for employees and positions, or the Assignment Organization Workload view for organizations. Workload distribution is generally used with service assignments.

Optionally, you can also define your own workload rules using the Workload Distribution Rules view. For more information about defining assignment workload distribution rules, see "Creating Assignment Workload Distribution Rules" on page 5-65.

How Workload Distribution Applies Workload Scores to Candidates

Workload distribution applies a workload score to candidates based on their current workload. The workload score is calculated as follows:

Workload score = Score times (1 minus (current workload divided by maximum workload))

> **Note:** The candidate's current workload excludes the workload of the current object being assigned.

Candidates with a lighter workload receive a higher score than candidates with a heavier workload. The workload score is then added to the candidate's score to generate a total score. Candidates that have workloads in excess of the maximum workload are eliminated from the assignment rule. This criterion prevents employees from being overloaded. Multiple workload distributions can be used for each assignment rule.

> **Note:** As with criteria, workload distribution has a Required field, which functions in the same manner as it does for regular criteria.

Figure 5–12 shows a workload distribution rule that:

- Adds 100 points to candidates with a workload of 0 items (100 times (1 minus (0 divided by 2)))
- Adds 50 points to candidates with a workload of 1 item (100 times (1 minus (1 divided by 2)))
- Adds 0 points to candidates with a workload of 2 items (100 times (1 minus (2 divided by 2)))
- Eliminates candidates with a workload of more than two items if the workload distribution rule is marked as Required

Figure 5–12   Sample Workload Distribution

Enabling MLOV Capability for Workload Distribution

Workload distribution can be enabled for multilingual list of values (MLOV) capabilities with additional configuration. MLOV allows you to store workload distribution in a form that can be retrieved and displayed in a variety of supported client languages. For more details on this feature, see *Configuring Siebel Business Applications*.

Process of Defining Assignment Workload

There are two methods for defining workload rules: using predefined workload rules or creating your own workload-rule definitions. This topic discusses how to use both options.

Siebel Assignment Manager provides a set of predefined workload rules that allows you to define workload distribution in assignment rules for employees, positions, or organization.

Table 5–21 lists the predefined assignment workload rules:

Table 5–21   Predefined Assignment Workload Rules

Workload Rule Name	Assignment Object
Critical Service Requests	Service Request
Excellent Leads	Opportunity
Open Opportunities	Opportunity
Total Open Service Requests	Service Request

Optionally, you can create your own workload rules. Use the following procedures to define assignment workload if you plan to create your own workload distribution rules.

Note: If you plan to use the predefined workload distribution rules, then skip to Step 2.

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1.   (Optional) "Creating Assignment Workload Distribution Rules" on page 5-65.

2. "Applying Assignment Workload Distribution to Employees, Positions, and Organizations" on page 5-66.

Creating Assignment Workload Distribution Rules

If you prefer to create your own workload distribution rules, in lieu of using the predefined rules, then use the following procedure.

Note: When creating your own workload rules, keep in mind that performance might be affected if Assignment Manager is accessing a nonindexed column or retrieving the total number of records.

This task an optional step in "Process of Defining Assignment Rules" on page 5-3 and "Process of Defining Assignment Workload" on page 5-64.

To create assignment workload distribution rules

1. Navigate to the Administration - Assignment screen, and then the Workload Distribution Rules view.

Note: If you plan to use the predefined workload rules, then skip to Step 4.

---

2. In the Workload Rules list, click New.

3. In the new record, click in the available fields to enter the relevant information for the workload rule.

   a. In the Name field, type a name for the workload rule.

   b. In the Objects to Be Assigned field, select the assignment object of the workload rule.

Note: The workload rule's assignment object must match the assignment rule's assignment object; otherwise, the assignment workload criteria is excluded or a run-time error occurs (dependent on the assignment rule assignment object's Ignore Extra Attributes run-time parameter setting).

---

4. With the appropriate workload rule selected, in the Conditions view, click New.

5. In the new record, click in the available fields to enter the relevant information for the workload conditions.

   a. In the Conditional Field field, select a value to define the workload condition.

   The fields that are available depend on the assignment object selected in Step 3.

   b. In the Comparison Operator field, select a comparison method.

Note: When specifying values for the comparison operands (LIKE, NOT LIKE, IN, NOT IN, and BETWEEN), the Value field must be in a form that the underlying database expects. For more information about operands, see *Siebel Developer's Reference*.

---

6. In the Value field, select a value with which you want to compare the workload condition.

The values that are available depend on the workload condition selected in Step 3 on page 5-65.

> **Tip:** If the drop-down arrow does not appear when you select the Value field, then you must enter an appropriate value. For example, if you are creating a workload rule for an Opportunity object and using Position Id as the workload condition, then you must enter the physical row ID of the positions.

> **Note:** If the assignment object selected for the workload criteria is team-based, then workload criteria using this workload rule should be associated with an assignment rule only if the workload rule object has the team table (or owner field) referenced by one of its workflow components.

Figure 5–13 shows an example of creating a workload rule called Example for the Account assignment object. The workload condition requires that the U.S. state for the account equal CA (for California).

Figure 5–13   Creating Workload Distribution Rules

Applying Assignment Workload Distribution to Employees, Positions, and Organizations

You balance workload among candidates by adding workload distribution rules for employees and positions, and organization workload distribution rules for organizations. For example, if your business logic includes limits on the maximum amount of work that can be handled at one time, then you would apply assignment workload to your assignment rules.

The following tasks are one step in "Process of Defining Assignment Workload" on page 5-64 and "Process of Defining Assignment Rules" on page 5-3.

Applying Workload Distribution to Employees and Positions

Use the following procedure when defining workload distribution for employees or positions.

To apply workload distribution to employees and positions

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to define the workload criteria, and then click the Workload Distribution view tab.

3. In the Workload Distribution list, click New.

4. In the new record, click in the available fields and enter the relevant information.

Table 5–22 shows the available predefined fields.

Table 5–22   Workload Distribution Fields for Employees and Positions

Field	Description	Example
Workload Distribution Rule	Name of the workload rule to apply to the assignment rule.	Total Open Service Requests
Assignment Object	Type of assignment object related to this workload rule.	Service Request
Score	Score to apply for this workload rule. For more information about workload scores, see "Process of Defining Assignment Workload" on page 5-64.	50
Required	Determines whether the workload rule is required for the assignment rule. The choices are Always and Never.	Always
Maximum Workload	The maximum workload allowed for this workload rule. For more information about how this value affects the workload score, see "Process of Defining Assignment Workload" on page 5-64.	2

Figure 5–14 shows an example of defining a workload distribution rule for employees and positions using values specified in Table 5–22.

Figure 5–14   Example of Defining Workload Distribution for Employees and Positions
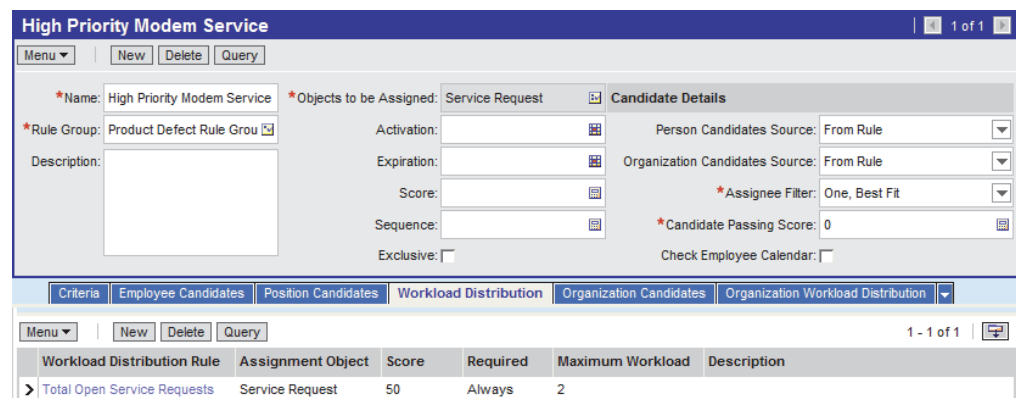
Applying Workload Distribution to Organizations

Use the following procedure when defining workload distribution for organizations.

To apply workload distribution to organizations

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to define workload criteria, and then click the Organization Workload Distribution view tab.

3. In the Organization Workload Distribution list, click New.

4. In the new record, click in the available fields and enter the relevant information.

Table 5–23 shows the available predefined fields.

Table 5–23   Workload Distribution Fields for Organizations

Field	Description	Example
Assignment Object	Type of assignment object related to this workload rule.	Opportunity
Maximum Workload	The maximum workload allowed for this workload rule. For more information about how this value affects the workload score, see "Process of Defining Assignment Workload" on page 5-64.	3
Required	Determines whether the workload rule is required for the assignment rule. The choices are Always and Never.	Always
Score	Score to apply for this workload rule. For more information about workload scores, see "Process of Defining Assignment Workload" on page 5-64.	10
Workload Distribution Rule	Name of the workload rule to apply to the assignment rule.	Excellent Leads

Figure 5–15 shows an example of adding a workload criteria for organizations using values specified in Table 5–23.

Figure 5–15   Example of Defining Workload Distribution for Organizations
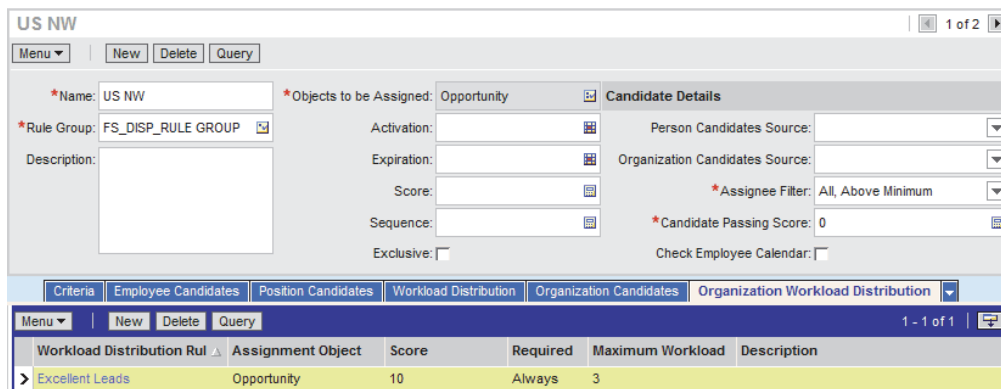
About Assignment Policies

Siebel Business Applications include predefined assignment policies for each of the predefined assignment objects. In general, it is recommended to use these predefined assignment policies. However, you can also create new assignment policies for dynamic assignment. If you plan to use the predefined assignment policies, then you must first activate them.

An instance of Workflow Monitor Agent detects when a user changes data related to objects, and each Workflow Monitor Agent can monitor one or more assignment policies. You can use a single Workflow Monitor Agent to monitor all assignment policies by placing all assignment policies in the same workflow group (the predefined assignment policies are defined this way). You can also place the assignment policies in separate workflow groups and dedicate Workflow Monitor Agents for each workflow group.

The Assignment Manager workflow policy actions that you can use for an assignment policy are:

- **Assignment Request (In Process).** This action assigns rows in its own process and does not use the Assignment Manager (AsgnSrvr) server component.

- **Assignment Request.** This action routes the requests to an AsgnSrvr process running in default mode.

If you want to use the rule group feature in dynamic assignment, then create a workflow process that submits requests to the AsgnSrvr server component using a business service.

For more information about Workflow Monitor Agent, see "Running Dynamic Assignment" on page 9-20 and *Siebel Business Process Framework: Workflow Guide*.

Process of Defining Assignment Policies for Dynamic Assignment

This topic is part of "About Assignment Policies" on page 5-68.

To create new assignment policies for dynamic assignment, perform the following tasks:

1. "Creating Assignment Policies for Dynamic Assignment" on page 5-69

2. "Activating Assignment Policies to Enable Dynamic Assignment" on page 5-70

Creating Assignment Policies for Dynamic Assignment

Assignment policies are specialized workflow policies used for dynamic assignment. Siebel Business Applications include predefined assignment policies for each of the predefined assignment objects. In general, it is recommended to use these predefined policies for setting up dynamic assignment. However, you can create new assignment policies.

> **Note:** If you create a new assignment object for dynamic assignment, then you must also create a new assignment policy for that object.

The following tasks are one step in "Process of Defining Assignment Rules" on page 5-3.

Use the following procedures to create new assignment policies for dynamic assignment.

To create an assignment policy for dynamic assignment

1. Navigate to the Administration - Assignment screen, and then the Assignment Policies view.

2. In the Assignment Policies list, click New.

3. In the new assignment policy record, enter the relevant information.

Table 5–24 shows the predefined assignment policy fields.

Table 5–24   Assignment Policy Fields

Field	Description
Name	The name of the assignment policy.
Workflow Object	The assignment object to which the assignment policy belongs.
Policy Group	The workflow group for the assignment policy. The default for the predefined assignment policies is Assignment Group. For new policies that you create for use with Assignment Manager, use the Assignment Group policy group.
	It is recommended that you do not change the policy group for assignment policies. However, if you find a need to do so, then regenerate triggers after making the change. For more information about regenerating triggers, see *Siebel Business Process Framework: Workflow Guide*.
	Caution: Assign a policy group to only one Workflow Monitor Agent. Multiple Workflow Monitor Agent components running the same policy group cause unpredictable completion times and possible multiple actions created for one trigger. For more information about Workflow Monitor Agents, see *Siebel Business Process Framework: Workflow Guide*.
Activation	The start date of the assignment policy.
Expiration	The end date of the assignment policy.

> **Note:**   By default, every assignment policy has an action. Use the following procedure only if you accidentally remove an action or create a new assignment policy. In addition, do not associate customized workflow actions with assignment policies. For more information about workflow actions, see *Siebel Business Process Framework: Workflow Guide*.

To create an action for an assignment policy for dynamic assignment

1. With the newly created assignment policy still selected, in the Actions list, click New.

2. In the Assignment Action field, click the drop-down arrow and select Assignment Request (In Process).

> **Note:**   It is recommended that you use the Assignment Request (In Process) workflow policy action because the Assignment Request action might cause performance problems. If you do choose to use the Assignment Request action, then make sure that the Assignment Manager (AsgnSrvr) process is available and online.

3. In the Assignment Mode field, click the down-arrow button and select MatchAssign.

4. (Optional) Add a sequence number, if so desired.

Activating Assignment Policies to Enable Dynamic Assignment

To enable dynamic assignment for an assignment object, activate the assignment policy for that object.

This task is a step in "Process of Defining Assignment Rules" on page 5-3.

To activate an assignment policy to enable dynamic assignment

1. Navigate to the Administration - Assignment screen, and then the Assignment Policies view.

2. In the Assignment Policies list, select the assignment policy that you want to activate.

3. In the Expiration field, click to either null the existing value or set the value to a later date.

    Workflow components process only active assignment policies that have not expired.

    Note: After activating an assignment policy, you must generate triggers again for the changes to take effect.

Deactivating Assignment Policies to Disable Dynamic Assignment

This topic is part of "About Assignment Policies" on page 5-68.

You might find at some point that you no longer need certain assignment rules. When this occurs, you can deactivate those assignment rules. To disable dynamic assignment for an assignment object, deactivate the assignment policy for that object.

    Note: Siebel Assignment Manager uses the database time to determine whether a rule is active or not.

To deactivate an assignment policy to disable dynamic assignment

1. Navigate to the Administration - Assignment screen, and then the Assignment Policies view.

2. In the Assignment Policies list, select the assignment policy you want to deactivate.

3. In the Expiration field, set the value to a date that has already passed.

Workflow components process only active assignment policies that have not expired; therefore, you can deactivate an assignment policy by expiring it.

    Note: After deactivating an assignment policy, you must generate triggers again for the changes to take effect.

6

Basic Configuration for Siebel Assignment Manager

This chapter describes basic Siebel Assignment Manager configuration.

> **Note:** If you plan to use the predefined Assignment Manager configurations, then you can skip this chapter and proceed to Chapter 7, "Working with Dynamic Candidates."

This chapter includes the following topics:

- "About Performing Basic Configuration Tasks for Siebel Assignment Manager" on page 6-2
- "About Siebel Assignment Manager Object Types" on page 6-3
- "About Siebel Assignment Manager Object Type Hierarchy and Relationships" on page 6-4
- "About Assignment Objects" on page 6-7
- "Configuring Assignment Objects" on page 6-8
- "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15
- "Using a Single Criterion for Multiple Assignment Objects" on page 6-26
- "Example of Using a Single Criterion for Two Assignment Objects" on page 6-28
- "About Inactive Workflow Policy Components for Siebel Assignment Manager" on page 6-31
- "About the Relationship Between Attributes and Skills" on page 6-32
- "Disabling Assignment Attributes" on page 6-33
- "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34

> **Note:** Configuration tasks other than the basic topics are explained in a separate chapter. For those users already familiar with Assignment Manager basic features and who require further information on refining their Assignment Manager deployment, also see Chapter 10, "Advanced Siebel Assignment Manager Configuration."

About Performing Basic Configuration Tasks for Siebel Assignment Manager

Using Siebel Tools, you can modify existing assignment object definitions or create new assignment object and assignment criteria definitions in the Siebel repository. After you compile the changes, these definitions appear as criteria in the Criteria view or as skills in the candidate skills picklists in your Siebel Business Applications for assignment object selection.

Siebel Assignment Manager features that you can custom configure using Siebel Tools include:

- List of assignment objects that can be assigned to assignment rules

- List of attributes that can be incorporated in assignment criteria

- Behavior of each available assignment object, including whether certain features are activated for the assignment object

- Table and column mappings of assignment objects and attributes

- Workflow policy component and workflow policy component column mappings of attributes used in assignment criteria

- List of dynamic candidate objects for each assignment object

- List of dynamic candidate component objects for each dynamic candidate (for team-based criteria)

> **Note:** Criteria values, skills, and workload conditions are specialized. Do not attempt to reconfigure them.

Table 6–1 lists the various configuration tasks that you might need to perform before creating your assignment rules. The steps are presented in no particular order, and some might not be applicable for your needs.

Table 6–1   Basic Assignment Configuration Tasks

Task	Required
"Configuring Assignment Object Properties" on page 6-8	Yes
"Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15	Yes
1. "Creating Assignment Attributes" on page 6-16	
2. "Mapping Assignment Attribute Columns to an Assignment Object and a Workflow Policy Component Column" on page 6-20	
3. "Creating Assignment Criteria" on page 6-22	
4. "Creating Assignment Criteria Attributes for Assignment Criteria" on page 6-24	
"About the Relationship Between Attributes and Skills" on page 6-32	No
"Using a Single Criterion for Multiple Assignment Objects" on page 6-26	No
"Enabling Assignment Objects for Skills" on page 6-13	No
"Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34	Yes

> **Note:** In addition to the basic configuration tasks, you might find that you need additional configuration to meet your particular business needs. Configuration tasks other than the basic topics are explained in a separate chapter and might require you to have additional knowledge or skills to perform. For more information about advanced configuration tasks, see Chapter 10, "Advanced Siebel Assignment Manager Configuration."

Requirements for Configuring Assignment Manager

Before you can successfully configure Assignment Manager, you must have a thorough understanding of how to use Siebel Tools, Assignment Manager, and the Siebel Data Model. Also familiarize yourself with the basics of the underlying Siebel Business Applications architecture.

For information about:

- Siebel Tools functionality, see *Using Siebel Tools* and *Configuring Siebel Business Applications*.

- Siebel Business Applications architecture, see *Siebel Deployment Planning Guide*.

- Workflow Manager functionality, see *Siebel Business Process Framework: Workflow Guide*. (Assignment Manager object types are related to Workflow Manager object types.)

- Siebel Data Model, see *Siebel Data Model Reference* on My Oracle Support.

About Siebel Assignment Manager Object Types

Siebel Business Applications provide predefined definitions in the Siebel repository for several objects. Using Siebel Tools, you configure assignment object property values in the repository to control and customize the way objects are assigned.

Some properties specify the basic definition of an assignment object, such as the name of the primary table in which object rows for the assignment object are stored, the name of the employee team table, the name of the employee primary column, and so on.

Other properties control the behavior of Siebel Assignment Manager when processing rules. For example, the Add Team Members property controls whether to remove from the team any candidates that no longer qualify for an assignment rule or rules.

Table 6–2 provides the object types specific to Assignment Manager that you can configure using Siebel Tools.

Table 6–2   Assignment Manager Object Types

Object Type	Description
Assignment Object	An assignment object specifies a business entity to which a candidate can be assigned, what is updated to accomplish that assignment, and other assignment behavior parameters. Assignment objects are assigned to assignment rules in the Objects to Be Assigned field of assignment rule records. **Note:** The Objects to Be Assigned field is a required field for assignment rules.

Table 6–2   (Cont.) Assignment Manager Object Types

Object Type	Description
Assignment User Prop	Assignment user properties allow you to optionally specify additional run-time characteristics for each assignment object. Each assignment object has its own set of user property values.
Assignment Object Extension	This object type is a child of the Assignment Object object type that you can use to perform configuration related to Reporting mode.
Assignment Attribute	An assignment attribute object definition defines an attribute that can be referenced in assignment criteria records. It specifies a logical attribute that can be chosen from a picklist for defining comparisons.
Assignment Attribute Column	An assignment attribute column object definition assigns an assignment attribute to an assignment object and a workflow policy component column. These mappings set up value matching within the assignment object and workflow policy object.
Assignment Criteria	An assignment criteria object definition comprises multiple assignment attributes. Assignment criteria appear in the picklist in the Criteria list column when you are editing an assignment rule record.
Assignment Criteria Locale	This object type is used to store translated versions of localizable properties on the parent object type. For more information about the Locale object types, see *Using Siebel Tools*.
Assignment Criteria Attribute	An assignment criteria attribute lists the assignment attributes that are part of an assignment criterion. Assignment criteria attributes make it possible for an assignment criteria to consist of multiple attributes, known as *composite criteria.*
Assignment Criteria Attribute Locale	This object type is used to store translated versions of localizable properties on the parent object type. For more information about the Locale object types, see *Using Siebel Tools*.
Dynamic Candidate	This object type is used to store a collection of joins from the base table to the team table that allows Assignment Manager to select potential candidates dynamically based on the current record.
Dynamic Candidate Component	A dynamic candidate component defines the tables and columns in an *n*th level join. The first level defines the primary table, and the last level identifies the candidate table.
Dynamic Candidate Component Col	The Dynamic Candidate Component Col definition references a column within a particular level of a join that is used to evaluate assignment criteria or used to copy columns.
Dynamic Candidate Locale	This object type is used to store translated versions of localizable properties on the parent object type. For more information about the Locale object types, see *Using Siebel Tools*.

For descriptions of, usage comments for, and property values for each of the predefined assignment objects, see *Siebel Object Types Reference*, and search for these object types.

About Siebel Assignment Manager Object Type Hierarchy and Relationships

Figure 6–1 illustrates the hierarchical (parent-child) relationships of Siebel Assignment Manager object types, as well as two related object types in Workflow Manager configuration. You use the Object Explorer in Siebel Tools to view these relationships.

Figure 6–1   Parent-Child Relationships Between Assignment Manager Object Types
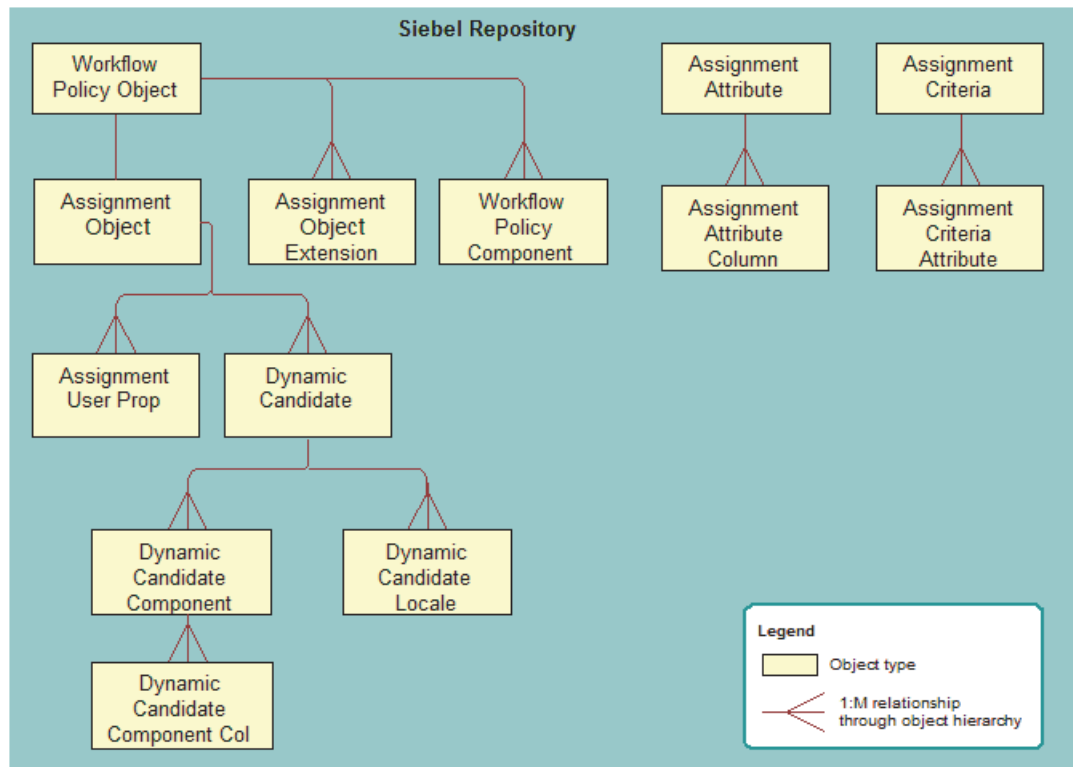
Figure 6–1 shows the following relationships:

- Assignment Object, Assignment Object Extension, and Workflow Policy Component are children of Workflow Policy Object.

- Dynamic Candidate and Assignment User Prop are children of Assignment Object.

- Dynamic Candidate Component and Dynamic Candidate Locale are children of Dynamic Candidate.

- Dynamic Candidate Component Col is a child of Dynamic Candidate Component.

- Assignment Attribute Column is a child of Assignment Attribute.

- Assignment Criteria Attribute is a child of Assignment Criteria.

In addition to the parent-child relationships between Assignment Manager object types, there are one-to-one and one-to-many relationships specified in property settings within the object definitions, as illustrated in Figure 6–2.

Figure 6–2   Field Value and Property Relationships Among Assignment Manager Object Types
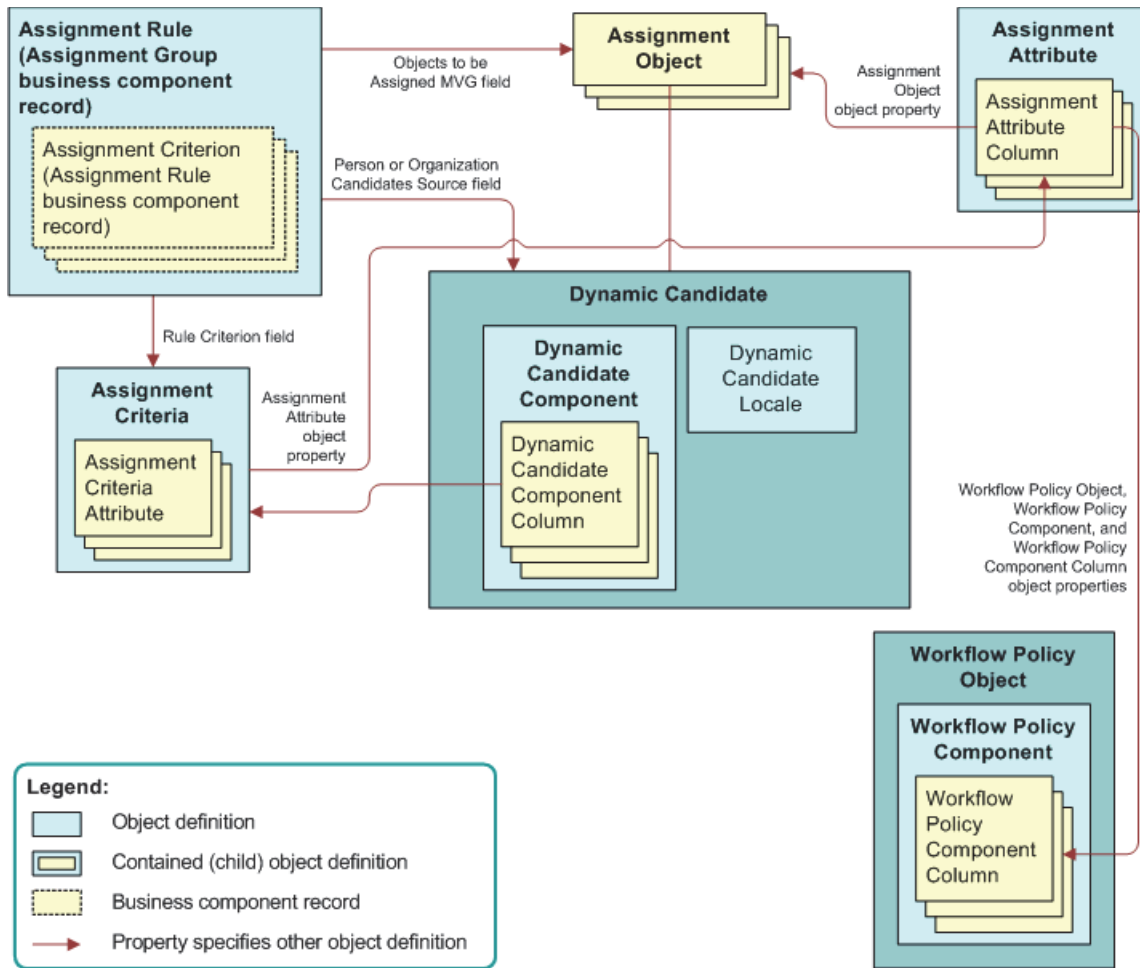
Figure 6–2 shows the following relationships:

- The business component that holds assignment criteria is called Assignment Rule. The business component that holds assignment rules is called Assignment Group. Assignment rules have assignment criteria children. Assignment rules are actually records of the Assignment Group business component, and their child assignment criteria are records of the Assignment Rule business component.

- Each assignment rule points to one or more assignment object definitions, stored in the Assignment Objects multivalue group field (MVG) in the assignment rule record.

  Note: Assignment Object is a required field for all assignment rules; however, Assignment Manager excludes rules that have no objects specified when upgrading.

- Dynamic Candidate is a child of Assignment Object and each assignment rule can point to one or more dynamic candidates.

- Dynamic Candidate Component is a child of Dynamic Candidate. It maintains the relationship between different components from which dynamic candidates are derived.

- Dynamic Candidate Component Col is a child of Dynamic Candidate Component and identifies component columns that need additional filtering.

- Each assignment criteria record points to an assignment criteria object definition, by means of the value in the Criteria field.

- Assignment attributes are attached to an assignment object through a property setting in each assignment attribute column object definition.

- An assignment attribute column object definition is mapped to a workflow policy component column object definition by means of a pair of property settings.

- If your rule has dynamic candidates, then the Person Candidates Source, Organization Candidates Source fields, or both, point to a Dynamic Candidate object definition.

About Assignment Objects

An assignment object is a repository representation of a data item type. In Siebel Assignment Manager, objects represent assignment entities to which candidates are matched based on assignment rules. The concept is analogous to business objects in Siebel Business Applications.

You must associate every assignment rule with at least one assignment object. Several predefined assignment objects are available for use by Assignment Manager for the most commonly used business entities in Siebel Business Applications. Some of the predefined assignment objects are:

- Account

- Activity

- Campaign

- Campaign Contact

- Contact

- Opportunity

- Order (Sales Credit Assignment)

- Product Defect

- Project

- Project Team

- Service Request

Note: The predefined assignment objects are intended for guidance purposes and might not be applicable to your business needs. It is recommended that you review the configuration of these objects in Siebel Tools, and change them if needed, before you make use of them.

Alternatively, if your deployment requires additional assignment objects, then you can also create new objects using Siebel Tools. For information about creating new assignment objects, see Chapter 10, "Advanced Siebel Assignment Manager Configuration."

> **Caution:**   Because of the complex requirements involved, it is
> recommended that you submit a service request (SR) on My Oracle
> Support if you have to create new assignment objects. If you create
> your own assignment objects, then you risk the possibility that Siebel
> Assignment Manager might make incorrect assignments.

Configuring Assignment Objects

This topic describes various tasks for configuring assignment objects and skills. It
contains the following information:

- "Configuring Assignment Object Properties" on page 6-8
- "Configuring Assignment Objects for Interactive Assignment" on page 6-10
- "Enabling Assignment Objects for Skills" on page 6-13
- "Example of Enabling an Assignment Object for Skills" on page 6-14
- "Viewing Predefined Skills" on page 6-15

Configuring Assignment Object Properties

This topic is part of "Configuring Assignment Objects" on page 6-8.

Siebel Assignment Manager uses definitions in the Siebel repository to assign objects
to assignment rules and candidates.

An assignment object specifies a business entity to which a candidate can be assigned
and the entities that are updated to accomplish that assignment. For example, an
employee or position can be assigned ownership of an opportunity or account or made
a member of the opportunity's or account's sales team. Similarly, an employee can be
assigned ownership of a service request or product defect. Each of the corresponding
business components has one or more fields that specify the owner or team. An
assignment rule includes one or more assignment objects. When the rule is satisfied,
specific columns underlying these fields are updated with replaced or added
employee IDs appropriate for the settings in the assignment object.

As shown in Figure 6–1, an assignment object is a child object type of the Workflow
Policy Object object. The parent workflow policy object provides a set of available
column mappings through its child workflow policy component and grandchild
workflow policy component column object types. These can be specified in
Assignment Attribute Column object definitions as columns to test for value matches
and to monitor in dynamic assignment for value changes.

> **Caution:**   If you inactivate a Workflow Policy Object that has a child
> assignment object, you must inactivate the assignment object as well,
> otherwise Assignment Manager components will not work.

Workflow policy objects have a one-to-one or a one-to-zero relationship with
assignment objects (the Order and Quote workflow policy objects do not have
predefined child assignment objects). You cannot add more assignment objects to
workflow policy objects that already have a child assignment object.

Siebel Business Applications provide predefined definitions in the Siebel repository for
several objects. The predefined Workflow Policy Object and Workflow Policy

Component Column definitions include mappings for the most commonly used attributes for each object.

> **Caution:** Siebel Tools allows the creation or configuration of an assignment object with both position- and employee-based assignment, but Assignment Manager does not correctly assign objects with this type of configuration. Only create or configure assignment objects for either position-based or employee-based assignment, not both.

To configure assignment object properties

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and select the object that you want to configure.

    Objects are listed alphabetically by parent name in the Workflow Policy Objects window.

    > **Tip:** Workflow policy objects are not included in the Object Explorer by default. Click View, then Options, then Object Explorer to add the workflow policy objects to the Object Explorer view.

3. With the assignment object selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

4. In the Object Explorer, select Assignment Object.

    The property values of the assignment object appear in the Properties window as well as the Assignment Objects list, although naming conventions for the same property might differ.

5. In the Properties window, configure the assignment object by setting the appropriate values for each property.

    > **Note:** The default values provided in the Siebel repository for assignment objects are provided for guidance purposes and might not be applicable to your business requirements. Therefore, it is recommended that you review the configuration of the predefined objects before using them. For detailed information about assignment objects and their default values, see *Siebel Object Types Reference*.

6. Update your deployment with the new configurations.

    For instructions, see Steps 2 and 3 in the procedure for "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

    > **Note:** It is not necessary to recompile the siebel.srf file when configuring an assignment object. For more information about when to recompile, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34 and *Using Siebel Tools*.

> **Tip:** If you are modifying the Default Employee, Default Position, or Default Organization properties, then make sure that the values specified exist in the appropriate base table. For example, if you change the default organization to My Organization, then there must be an entry called My Organization in the Administration - Group screen, Organizations view.

Configuring Assignment Objects for Interactive Assignment

This topic is part of "Configuring Assignment Objects" on page 6-8.

Interactive assignment allows users to invoke Siebel Assignment Manager immediately, view the list of assignees generated by Assignment Manager, and then override or confirm the assignees in the list. Users can invoke interactive assignment by clicking the appropriate object's form Menu button and choosing Assign, as shown in Figure 6–3.

For example, you could choose the Assign option from the Menu button in the All Service Requests view after navigating to the Service screen, then Service Requests, and then Service Requests List view, and then choosing All Service Requests from the view drop-down list.

When you choose Assign to assign the current service request, the Siebel client contacts the Assignment Manager and creates a list of qualified employees sorted by descending scores. The list of qualified employees appears to the user in the Employees window. Then, you can select an employee from the list as the service request owner.

Figure 6–3   Example of Invoking Interactive Assignment
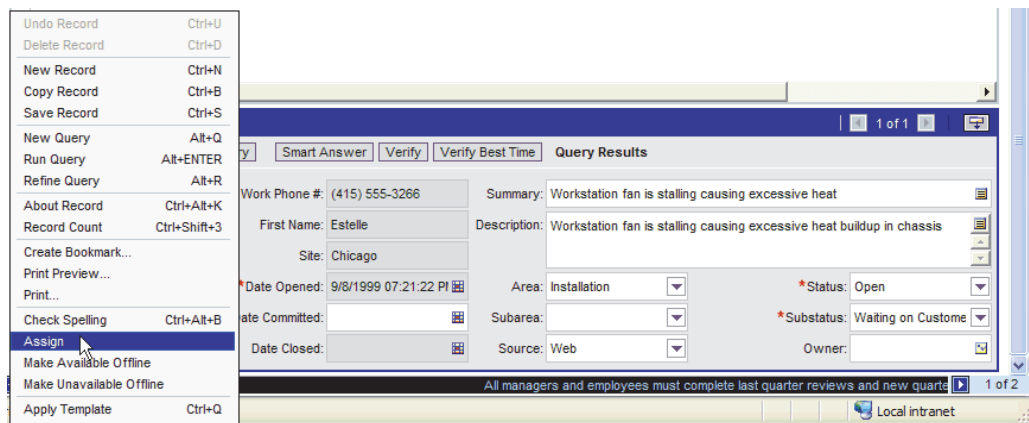
Alternatively, you can allow Siebel SmartScript to have Assignment Manager select the most qualified candidate from the list. In this case, a list of qualified employees does not appear in the Employees window, and the most qualified candidate is assigned. The procedure below has an optional step related to using Siebel SmartScript in this manner.

The Service Request assignment object is configured for interactive assignment by default. However, you can use Siebel Tools to configure interactive assignment for other assignment objects.

To configure interactive assignment for an assignment object

1. Verify that Assignment Manager is configured to perform assignment of values in the desired field, including the presence of the necessary assignment object and assignment rules and values.

2. Verify that the displayed business component is of the CSSBCBase class or one of its subclasses and add the Assignment Object business component user property to the business component.

    a. In the Object Explorer, select Business Component.

    b. In the Business Components window, select the business component.

    c. In the Class property for that business component, verify that the value is CSSBCBase (such as in the Account business component).

    Note: Business components based on other classes cannot be configured for interactive assignment. If the class is not CSSBCBase, then note the class name and locate it in the Object Explorer for the Class object type. Note the value in the Super Class property for this class. If the Super Class is CSSBCBase, then interactive assignment is permitted. If the Super Class is not CSSBCBase, then check the Super Class property for that class.

    ---

    d. Set the Name property to Assignment Object.

    e. Set the Value property to the name of the assignment object that is to be used in the assignment process.

3. Verify that the appropriate applet is of the CSSFrameBase class or one of its subclasses.

    a. In the Object Explorer, select Applet.

    b. In the Applets window, select the applet that you want to verify.

    c. In the Class property for that applet, verify that the value is CSSFrameBase (such as Account Entry Applet).

    Note: Applets based on other classes (including CSSFrameListBase) cannot be configured for Interactive Assignment.

    ---

4. Add the Assignment Type business component user property to the business component.

    a. In the Object Explorer, select Business Component.

    b. In the Business Components window, select the business component, and then click Business Component User Prop.

    c. Set the Name property to Assignment Type.

    d. Set the Value property to:

        – People, if you are setting up an employee- or position-based assignment

        – Organizations, if you are setting up an organization-based assignment

        – Both, if you are setting up an employee- or position-based assignment but need passed organization to be assigned as well.

> **Note:** The behavior for the value Both is the same as for the value People, except that the result applet displays the list of passed employees or positions, and along with the actual assignment of the selected position or employee, passed organizations are assigned to the record.

5. (Optional) If you want to enable Siebel SmartScript, then add the Assignment Interactive business component user property to the business component.

   a. Set the Name property to Assignment Interactive.

   b. Set the Value property to TRUE.

6. Add the Assign selection to the applet menu button.

   a. In the Object Explorer, select Applet.

   b. In the Applets window, select the applet to which you want to add the Assign functionality.

   c. In the Object Explorer, select Applet Method Menu Item.

   d. Select the Applet Method Menu Items window, choose Edit, then New Record, and set the following values:

      – Command = Assign(SWE)

      – Menu Text = Assign

      – Position number = 1 (or to the number corresponding to the preferred placement in the menu)

7. Add the business component that holds assignment results records to the business object of the view in which the reconfigured applet is used. This business component already exists, and is either:

   ■ Assignment Results (Position) or Assignment Results (Employee), if Assignment Type is set to People (depending on whether you are setting up an employee- or position-based assignment)

   ■ Assignment Results (Organizations), if Assignment Type is set to Organizations

8. In the Object Explorer, select Business Object.

   a. In the Business Objects window, select the Business Object for which you want to add a child business object component.

   b. In the Object Explorer, click Business Objects Components, and in the Business Objects Components window, choose Edit, then New Record.

   c. In the new record, enter values in the appropriate fields with the BusComp name set to: Assignment Results (Position), Assignment Results (Employee), or Assignment Results (Organization).

9. (Optional) Define the business component user property called Assignment Results BusComp and the applet user property called Assignment Results Applet.

   These user properties are desirable when you have to show additional information about the results. For example, the service request assignment results can be joined with the CTI tables, and can query only qualified service people who are not currently using their telephone:

- The name of the business component that is used to hold data for the additional fields would be specified in an Assignment Results BusComp user property in the business component being assigned.

- The name of the applet that is used to display the assignment results would be specified in an Assignment Results Applet user property in the applet from which assignment is invoked.

10. Add one of the following Business Components (depending on what is being assigned) to the relevant Business Object: Assignment Group Position, Assignment Group Employee, or Assignment Group Organization.

11. Update your deployment with the new configurations.

    For instructions, see Step 1 on on page 6-35 in "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

    Note: Other than recompiling the siebel.srf file, there are no additional administrative tasks required for this procedure. For more information about when to recompile, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34 and *Using Siebel Tools*.

Enabling Assignment Objects for Skills

This topic is part of "Configuring Assignment Objects" on page 6-8.

Siebel Assignment Manager uses standard skills or custom expertise values to compare an object being assigned directly to a person when processing assignment rules. Assignment Manager criteria and skills are related transparently in the Siebel Data Model. Skills are extensions to attribute data stored in designated skill and skill item tables. At a high level, you can think of an assignment criterion as a skill, and each criteria value as a skill item, as shown in Figure 6–4.

Figure 6–4   Assignment Criteria and Skills Comparison
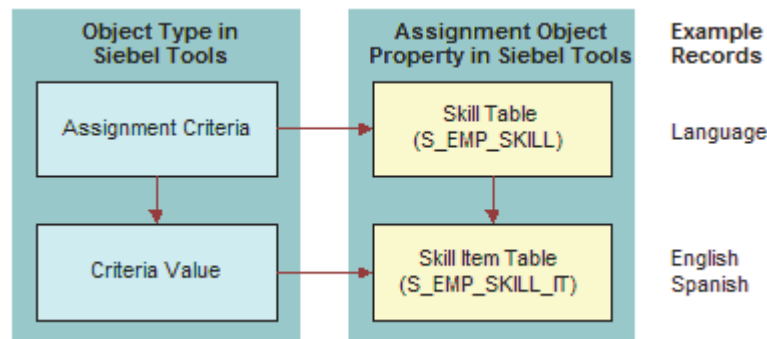
The Skill Table and Skill Item Table properties are child and grandchild tables, respectively, of the assignment object used to store skills, and skill items for assignment objects that are not stored as columns in the parent table itself. The S_EMP_SKILL employee skill table is used to store skills possessed by employees, such as languages spoken, product expertise, and so on.

For example, for an employee who speaks English and Spanish, there is one record in the employee skill table that specifies the skill name as Language. There are also two records in the child S_EMP_SKILL_IT employee skill item table that correspond to this skill record: one record for English, and another record for Spanish.

Several objects are preconfigured for skills: Account, Activity, Campaign, Employee, Opportunity (Revenue), Service Request, and so on. By default, sales objects do not use skills. Using Siebel Tools, you enable skills for other assignment objects by configuring the object's Skill Table and Skill Item Table properties.

> **Note:** Before enabling skills for an assignment object, make sure that the Skill Table assignment object property exists in the Siebel Data Model.

To enable assignment objects for skills

1. Start Siebel Tools.

2. Select the assignment object for which you want to enable skills.

   a. In the Object Explorer, click Workflow Policy Object, and then in the Workflow Policy Objects list, query for an object.

   b. In the Object Explorer, click Assignment Object.

3. Lock the project for the assignment object by choosing Tools, then Lock Project (Alt+L).

   A pencil icon appears next to the Name field to indicate that the object's project is locked.

4. In the Assignment Objects list (or Properties window), enter values for the fields in the following table.

Field	Description
Skill Item Table	The name of the skill item table.
Skill Table	The name of the skill table.

> **Note:** Choose the table name from the drop-down menu. This LOV (list of values) is derived from tables specified in the Siebel repository.

5. Set the Employee Skill assignment criteria property to TRUE.

   a. In the Object Explorer, select Assignment Criteria.

   b. In the Assignment Criteria list, select the object that you selected in Step 2.

   c. Set the Employee Skill property to TRUE.

Example of Enabling an Assignment Object for Skills

This topic is part of "Configuring Assignment Objects" on page 6-8.

This topic gives one example of enabling skills for an assignment object. You might use this feature differently, depending on your business model.

The following procedure explains how to enable skills for the Contact assignment object.

To enable skills for the Contact assignment object

1. Start Siebel Tools.

2. Select the assignment object for which you want to enable skills.

    a. In the Object Explorer, click Workflow Policy Object, and then in the Workflow Policy Objects list, query for Contact.

    b. In the Object Explorer, click Assignment Object.

3. Lock the project for the Contact assignment object by choosing Tools, then Lock Project (Alt+L).

   A pencil icon appears next to the Name field to indicate that the object's project is locked.

4. In the Assignment Objects list (or Properties window), enter values for the fields in the following table.

Field	Description
Skill Table	S_CON_SKILL
Skill Item Table	S_CON_SKILL_IT

Viewing Predefined Skills

This topic is part of "Configuring Assignment Objects" on page 6-8.

The Siebel Business Applications provide several predefined skills. The predefined skills for Assignment Manager are:

- Language Code

- Product Id

- Product Line Id

- Product Line Name

- Product Name

- Revenue

For most deployments, the predefined skills are sufficient. However, you can create new skills using Siebel Tools. For more information about creating new skills, see "Creating New Skills" on page 10-3.

To view predefined skills

1. Start Siebel Tools.

2. In the Object Explorer, click to select the Assignment Criteria object.

3. In the Assignment Criteria applet, query for criteria with Employee Skill equal to TRUE.

   The predefined skills appear as well as any new skills that you have created.

Process of Creating Assignment Criteria for Use in Assignment Rules

Assignment criteria are the conditions that the candidates must satisfy in order to qualify for assignment to a particular work item. You usually define assignment criteria along with criteria values in assignment rules. Criteria values are the details associated with a criterion. There might be several criteria values for the same criterion.

Siebel Assignment Manager provides several predefined assignment criteria and criteria values. You can, however, create your own criteria and criteria values using Siebel Tools.

To create new assignment criteria for use in assignment rules, perform the following tasks in the order presented:

1. "Creating Assignment Attributes" on page 6-16

2. (Optional) "Enabling Assignment Attributes for MLOV" on page 6-19

3. "Mapping Assignment Attribute Columns to an Assignment Object and a Workflow Policy Component Column" on page 6-20

4. "Creating Assignment Criteria" on page 6-22

5. "Creating Assignment Criteria Attributes for Assignment Criteria" on page 6-24

Creating Assignment Attributes

Assignment attributes are logical attributes of an object or candidate that can be used for matching. An assignment attribute allows you to associate a single attribute on an object or a person or an organization to multiple fields in the application.

For example, you can define an assignment rule that matches candidates based on the U.S. state. However, State is stored in a different field in the application for different objects. Assignment attributes map the places that State is defined into a single State attribute.

This task is a step in "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

Assignment attributes can be either column-based or skill-based. Column-based attributes are stored as columns in the object (such as Opportunity). You can use existing columns in the object, or use Siebel Database Extensibility to add new extension columns to the object. Skills-based attributes are stored as rows in the object's skill tables (if any).

For more information about Database Extensibility, see *Configuring Siebel Business Applications*.

Figure 6–5 shows a Product Line Wildcard assignment criterion that uses the Compare to Person comparison method. The assignment criterion also uses the Include All inclusion method and includes two criteria values, Monitors and Graphic Cards. Each criteria value includes two assignment attributes. In this example, only candidates that possess an Expert-level expertise in monitors and graphic cards qualify for the assignment criterion. Furthermore, 25 points are added to the qualifying candidate's score.

Figure 6–5   Sample Assignment Attributes

If you are adding an assignment attribute to a new table, then you must modify the existing Workflow Manager definitions in the Siebel repository. For more information about making modifications to Workflow Manager, see *Siebel Business Process Framework: Workflow Guide*.

An assignment attribute object definition defines an attribute that can be referenced in assignment criteria records. It specifies a logical attribute that can be chosen from a picklist for defining comparisons; it does not directly specify a particular database column or combination of columns. Column mapping is accomplished through the child assignment attribute column object definitions, one for each assignment object that uses the parent assignment attribute.

An assignment attribute also specifies the picklist that appears in the Values list in the Criteria subview when you are entering an attribute in a value record, as shown in Figure 6–6.

Figure 6–6   Picklist for Populating an Attribute in a Value Record

> **Note:**   Assignment criteria configured to include multiple assignment attributes cannot have these attributes based on columns in different tables.

An assignment criteria attribute object definition implements each list column in the Values applet, as described in "Creating Assignment Criteria Attributes for Assignment Criteria" on page 6-24. The assignment criteria attribute is based on an assignment attribute, as specified in its assignment attribute property. The referenced

assignment attribute identifies a picklist, which is the same picklist that appears when you click the drop-down arrow to the right of the list column cell.

The Assignment Attribute object type functions as an intermediary between the assignment criteria and the assignment objects, as shown in Figure 6–6.

An assignment criteria attribute references an assignment attribute through its assignment attribute property. In turn, each of the assignment attribute's child assignment attribute columns specifies an assignment object and a workflow policy component and column combination.

An assignment attribute is a logical grouping of similar mappings to different assignment objects that can use the same picklist for value selection.

For example, the Account State assignment attribute has several child assignment attribute column object definitions. Each assignment attribute is used for selection of the state in which an account is located, but five of them are used for different assignment objects (Activity, Account, Campaign Contact, and Order), and the other five are used for different account state attributes in the Opportunity assignment object (such as Primary Account State and Indirect Account Primary State).

Note: To generate a trigger based on an assignment attribute, a corresponding assignment attribute column must be configured. See "Mapping Assignment Attribute Columns to an Assignment Object and a Workflow Policy Component Column" on page 6-20.

To create an assignment attribute

1. Start Siebel Tools.

2. In the Object Explorer, select the Assignment Attribute object.

   Tip: If the Assignment Attribute object is not visible in the Object Explorer, then you can enable it in the Development Tools Options dialog box (choose View, then Options, and then Object Explorer).

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Assignment Attributes window, choose Edit, then New Record, and configure the assignment attribute object by setting values in the appropriate fields.

   a. In the Name field, type the name of the new assignment attribute.

   b. In the Project field, select a project.

   c. (Optional) If the attribute supports a range of values (such as revenue), then check the Use Range field.

   d. In the Data Type field, select a data type for the attribute.

   e. (Optional) If you want a picklist for the attribute to allow users to select values for the assignment attribute, then enter a value in the Pick List field.

   f. (Optional), Pick a field for the attribute to allow users to select values for the assignment attribute, enter a value in the Pick Field field.

   For a description of these properties, see Table 6–3.

5. Update the siebel.srf file and run various server administration tasks.

   For instructions on updating your deployment with the new configurations, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Table 6–3 shows some of the properties of the Assignment Attribute object type.

Table 6–3   Assignment Attribute Properties

Property	Description
Bounded	When checked, the picklist is bounded (you can select a value from the picklist). When unchecked, you can enter a value that does not appear in the list.
Data Type	Data type for the assignment attribute. Number, UtcDateTime, and Varchar are supported.
Name	Name of the assignment attribute. Must be unique within the repository.
Order By LOV Type	Not used.
Pick Field	Name of the field to select from the picklist.
Pick List	Name of the picklist that supplies the selection values for populating any list column in the Values list (in the Assignment Criteria view) that is based on this assignment attribute.
Use Range	Specifies whether a single list column or a pair of list columns, indicating a range, appears for assignment criteria attributes based on this assignment attribute. For example, the Revenue assignment attribute, which has a TRUE value for Use Range, appears as two list columns, Revenue Low and Revenue High. You can enter 50000 in the former and 100000 in the latter in a value record to indicate a range of $50,000 to $100,000.
Translate	When checked, enables MLOV (multilingual list of values) capability for the attribute. For more information about enabling this feature, see "Enabling Assignment Attributes for MLOV" on page 6-19.

Enabling Assignment Attributes for MLOV

Multilingual List of Values (MLOV) capability allows assignment attributes to be stored in a form that can be retrieved and displayed in a variety of supported client languages. To enable assignment attributes for MLOV, use the following procedure.

This task is an optional step in "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

To enable an assignment attribute for MLOV

1. Start Siebel Tools.

2. In the Object Explorer, select the Assignment Attribute object.

3. In the Assignment Attributes list, select the assignment attribute for which you want to enable MLOV.

4. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

5. Locate the Translate property for this attribute, and set the value to TRUE.

6. Locate the Translate Pick Field for the assignment attribute, and select from the Translate Pick Field dialog box the field in the Pick List Business Component that stores the Language Independent Code (in most cases this is the Name field).

7. Locate the Pick Field for the assignment attribute, and select from the Pick Field dialog box the field in the Pick List Business Component that stores the Display Value (in most cases this is the Value field).

You can also configure the application to enable MLOV for workload criteria, criteria values, and skills. For more information about configuring MLOVs, see *Configuring Siebel Business Applications*. See also *Siebel Global Deployment Guide*.

Mapping Assignment Attribute Columns to an Assignment Object and a Workflow Policy Component Column

An assignment attribute column is a child object type of the Assignment Attribute object in Siebel Tools, as shown in Figure 6–1. The parent assignment attribute is an abstract logical attribute to test for a value match, and attribute columns provide mapping of assignment attributes to workflow policy component columns.

Workflow policy component columns define the column and the table name from where Assignment Manager retrieves the data for the attribute from the database. The same assignment attribute can be used for different assignment objects.

For example, consider the Account State criterion. You can apply this criterion to many assignment objects. For account objects, it means the physical U.S. state in which the account resides. For opportunity objects, it might mean the U.S. state for the accounts associated with a specific opportunity. In these instances, you define multiple assignment attribute columns for the Account State attribute and define the assignment object and the workflow policy component column to indicate where to get the data.

An assignment attribute can have multiple attribute columns for the same assignment object. For example, for the Opportunity assignment object, Account City could either mean the primary city associated with the opportunity itself or the primary city associated with the account associated to the opportunity. In this instance, the Account City assignment attribute has two attribute column records for the Opportunity assignment object.

Also define the Sequence property on the assignment attribute column object. The sequence determines the order in which the data is retrieved in the event there are multiple attribute columns for the same attribute for the same assignment object.

An assignment attribute column object definition maps an assignment attribute to an assignment object and a workflow policy component column, as shown in Figure 6–2. These mappings set up value matching within the assignment object and workflow policy object for criteria that use the parent assignment attribute.

The parent assignment attribute is an abstract logical attribute to test for a value match, which you can specify in an assignment criteria. The child assignment attribute columns specify the actual mappings to assignment objects and workflow policy component columns. Each assignment attribute column can specify a different assignment object to search, or a different attribute within the same assignment object.

This task is a step in "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

To map assignment attributes to an existing assignment object

1. Start Siebel Tools.

2. In the Object Explorer, expand the Assignment Attribute object, and select the Assignment Attribute Column object.

3. In the Assignment Attributes window, select the assignment attribute for which you want to map the logical location in the database schema.

4. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

5. In the Assignment Attribute Columns window, choose Edit, then New Record.

6. Configure the assignment attribute object by setting values in the appropriate fields.

   a. In the Name field, type the name of the new assignment attribute column.

   b. In the Assignment Object field, select an assignment object to which the assignment attribute is applied.

   c. In the Workflow Policy Component field, select a workflow policy component to which the workflow policy object is applied.

   d. In the Workflow Policy Component field, select a workflow policy component column to which the workflow policy component is applied.

   e. In the Sequence field, enter a sequence value.

   For descriptions of these properties, see Table 6–4.

7. Update the siebel.srf file and run various server administration tasks.

   For instructions on updating your deployment with the new configurations, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Table 6–4 shows some of the properties of the Assignment Attribute Column object type.

Table 6–4   Assignment Attribute Column Properties

Property	Description
Assignment Object	Assignment object that is checked for a value match with the parent assignment attribute.
Name	Name of the assignment attribute column. The typical format is: *assignment_object*: *workflow_component_column* For example: `Service Request: Account Area Code`
Sequence	A unique sequence number for the assignment attribute column within the assignment attribute. If an assignment attribute has multiple assignment attribute columns, then Assignment Manager searches for attribute values in the order of the values in this property.
Workflow Policy Component	Name of the workflow policy component, within the specified workflow policy object, with which this assignment attribute column is associated.
Workflow Policy Component Column	Name of the workflow policy component column, within the specified workflow policy component, with which this assignment attribute column is associated.
Workflow Policy Object	Name of the workflow policy object with which the assignment attribute column is associated. When an assignment object is selected, the workflow policy object defaults to this selection.

Creating Assignment Criteria

Assignment criteria define an object and are used in assignment criteria records in assignment rules. After you create and recompile an assignment criteria object definition in Siebel Tools, it becomes available for selection from the Criteria list column picklist in assignment criteria records in Siebel Business Applications.

For static assignment, you use the Assignment Criteria object properties to specify the criteria name (internally and as displayed) and to configure skill tables. However, most of the behavior of assignment criteria is configured in the assignment criteria attribute children. For dynamic assignment, you use special team-based criteria. For more information about criteria for dynamic assignment, see "Examples of Dynamic Candidate Assignment" on page 7-4.

An assignment criteria can consist of one or more assignment attributes, such as the criteria Account City, Account State, and Account Country. These assignment attributes are grouped as assignment criteria. In this case, a single criterion, called a composite criterion, includes three assignment attributes. To add or change drop-down fields that define assignment criteria in an assignment rule, define or modify assignment criteria. Assignment criteria attributes enumerate assignment attributes for the assignment criteria.

The Criteria list column in an assignment criteria record specifies the assignment criteria that is tested for a match against one or more attributes of the assignment object or candidate. For example, in an assignment criteria that determines whether the state is California, the assignment item would be State, Home State, or Account State, and the value California (CA) would be specified in a child value record.

When you click the drop-down arrow button in the Criteria list column for an assignment rule, a picklist appears for selection of an assignment criteria. The picklist lists the available assignment criteria (assignment criteria object definitions in the repository). When you select an assignment criteria, its name is stored in the Criteria Name field in the current Assignment Rule business component record.

This task is a step in "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

> **Note:** When enabling the standard assignment attributes and criteria to be skill-based, create the new assignment criteria and assignment attributes (based on the existing predefined ones), and set them for skill-based assignment.

To create assignment criteria

1. Start Siebel Tools.

2. In the Object Explorer, select the Assignment Criteria object.

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Assignment Criteria window, choose Edit, then New Record, and set values in the appropriate fields.

   a. In the Name field, type the name of the new assignment criteria.

   b. In the Project field, select the Assignment project.

c. In the Display Name field, type the name that appears for the assignment criteria.

d. (Optional) If you want the assignment criteria stored in the skill table, then check the Employee Skill field.

For information about skill tables, see "Enabling Assignment Objects for Skills" on page 6-13.

e. (Optional) If you want expertise codes stored for the skill, then check the Use Expertise field.

If you check this field, then Assignment Manager uses expertise codes to match objects to candidates.

f. (Optional) If you do not want the assignment criteria to appear in the Criteria picklist, then uncheck the Display Flag field.

g. If this is a team-based criterion, then check the Team flag. In this case, you define only one criteria attribute record and you do not define any attribute columns for the assignment attribute.

For more information about team-based criteria, see "Examples of Dynamic Candidate Assignment" on page 7-4.

For descriptions of these properties, see Table 6–5.

5. Update the siebel.srf file and run various server administration tasks.

For instructions on updating your deployment with the new configurations, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

The assignment criteria object definition has two properties to specify the name (internally and as displayed) and two properties that are used to configure skill tables (Employee Skill and Use Expertise). Most of the behavior of an assignment criteria is configured in the assignment criteria attribute children. Table 6–5 shows some of the properties of the assignment criteria object type.

Table 6–5   Assignment Criteria Properties

Property	Description
Display Flag	A check mark indicates that the assignment criteria appears in the Criteria picklist.
Display Name	Name that appears for this assignment criteria in the picklist and the Criteria list column in the Criteria list in the Criteria view (Assignment Rule, then Criteria). If it is not specified, then the value in the Name property is used instead.
Employee Skill	A TRUE or FALSE property that specifies whether the attribute is actually stored in the skill and skill item tables for the candidate or object. For more information about skill tables, see "Enabling Assignment Objects for Skills" on page 6-13.
Name	Name of the assignment criteria.
Use Expertise	A TRUE or FALSE property that applies to assignment criteria that are skills. It specifies whether expertise codes are stored for the skill. If so, then Assignment Manager uses the expertise code to match the assignment object to people.

Creating Assignment Criteria Attributes for Assignment Criteria

An assignment criterion includes one or more assignment criteria attributes, stored as object definitions for child assignment criteria attributes. Assignment criteria attributes are implemented as object definitions of the assignment criteria attribute object type. Assignment Criteria Attribute is a child object type of Assignment Criteria, as shown in Figure 6–2.

The set of assignment criteria attributes in an assignment criterion determines the set of list columns that appear in the Values list. One list column appears in the Values list for each assignment criteria attribute in the assignment criteria. In Siebel Tools, as Figure 6–7 shows, the Account Wildcard assignment criteria (the Account Name assignment criteria with a display name of Account Wildcard) has an Account Name and a Site Name list column in the display of its child Value records. Both the Account Name and Site Name list columns correspond to the Account Name assignment criteria attribute.

If there were more assignment criteria attributes for this assignment criterion, then each would have a list column in the Values list. The Score list column is automatically provided, and the Expertise Code list column appears in this instance because the assignment criteria has a Use Expertise property setting of TRUE.

Figure 6–7   Assignment Criterion with Child Assignment Criteria Attributes
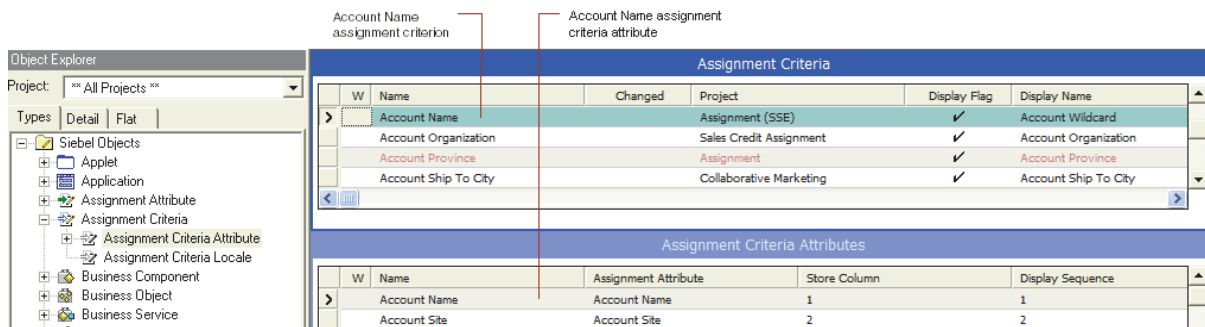
Composite Criteria

Assignment criteria attributes make it possible for a single assignment criterion to consist of multiple attributes, known as composite criteria.

For composite criteria, all the attributes must have a 1:1 relationship and refer to the same base table record. For example, the Account City-State-Country is a good composite criterion because San Mateo (city) resides in the state of California (state) and California resides in the U.S. (country). All of these attributes are stored on the same record in the same table.

> **Note:**   It is not possible to create composite criteria with attributes based on different tables.

This task is a step in "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

To create an assignment criteria attribute

1. Start Siebel Tools.

2. In the Object Explorer, expand the Assignment Criteria object, and select the Assignment Criteria Attribute object.

3. In the Assignment Criteria window, select the assignment criteria for which you want to enumerate assignment attributes.

4. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

5. Select the Assignment Criteria Attributes window, then choose Edit, then New Record.

6. Configure the assignment criteria attribute by setting values in the appropriate fields.

   a. In the Name field, type the name of the new assignment criteria attribute.

   b. In the Assignment Attribute field, select the assignment attribute for this assignment criteria.

   c. In the Display Name field, type the name for the assignment criteria attribute.

   d. In the Store Column field, specify the column in the assignment factor items table where the value for the assignment criteria attribute is stored.

   e. In the Display Sequence field, specify the sequence in which the assignment criteria attribute appears.

   f. (Optional) In the Pick Applet field, choose a pick applet for the assignment criteria attribute to allow users to view or select values for the assignment criteria attribute.

   Note: For composite criteria, repeat Steps 5 and 6 as many times as is necessary.

For more information about these properties, see Table 6–6.

You also must update the siebel.srf file and run various server administration tasks using the procedures in "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Table 6–6 shows some of the properties of the assignment criteria attribute object type.

Table 6–6   Assignment Criteria Attribute Properties

Property	Description
Assignment Attribute	Name of the assignment attribute that this assignment criteria attribute is based on. Selected from a drop-down list.
Display Name	List column label that appears for this assignment criteria attribute in the Values list. If it is omitted, then the Name is used in the list column label.
Display Sequence	Order in which the list column for this assignment criteria attribute appears in the list applet, relative to those of other assignment criteria attributes in the assignment item. A lower number places the list column further to the left.
Name	Name of the assignment criteria attribute, for identification. This name must be unique within the parent assignment criteria.
Pick Applet	If a picklist is defined for the associated assignment attribute, then you specify the name of a pick applet to display the picklist for selection of a value in the attribute's list column.

Table 6–6   (Cont.) Assignment Criteria Attribute Properties

Property	Description
Store Column	Specifies the column in the assignment factor items table (S_ASGN_RULE_ITEM) in which to store the value for the assignment criteria attribute. There are four columns of each data type (Number, UtcDateTime, and Varchar) provided for storage of assignment criteria attribute values in each assignment criteria.
	You must specify a unique value, between 1 and 4 inclusive, for each assignment criteria attribute of the same data type. The data type can be determined from the Data Type property in the referenced assignment attribute object definition.
	Note: You can have up to four assignment criteria attributes for each assignment criterion (a composite criterion can have a maximum of four attributes).

Using a Single Criterion for Multiple Assignment Objects

In some cases, you can create an assignment rule that assigns candidates to two or more assignment objects while using only one of the objects' criteria. For example, you might want the ability to assign both accounts and opportunities based on the criteria Opportunity Lead Quality. To configure Assignment Manager to assign accounts based on this criteria, you must first configure and expose the Opportunity Lead Quality column to the Account assignment object using Siebel Tools.

Note: The triggers for dynamic assignment are based on the workflow policy components and workflow policy component columns.

Tip: Assignment is based on data values in database fields. Therefore, configuration of the Assignment Attribute Column requires Workflow Policy Component and Workflow Policy Component Column information, and a Workflow Policy Component Column references a database table column.

Use the procedures in this topic to create assignment rules that use a single criterion for multiple objects. You define an assignment rule for two objects using the criteria of one object, following the tasks in "Process of Defining Assignment Rules" on page 5-3.

For procedures using a specific example, see "Example of Using a Single Criterion for Two Assignment Objects" on page 6-28.

For more information about workflows in general, see *Siebel Business Process Framework: Workflow Guide*.

Creating a Workflow Policy Component for Two Assignment Objects

Use the following procedure to create a workflow policy component for two assignment objects.

To create a workflow policy component for two objects

1.   Start Siebel Tools.

2.   Select the workflow policy object for which you want to create a workflow policy component.

    a. In the Object Explorer, select Workflow Policy Object.

    b. In the Workflow Policy Objects window, select the object.

3. With the workflow policy object selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

4. Add a new workflow policy component record.

    a. In the Object Explorer, expand Workflow Policy Component.

    b. In the Workflow Policy Component window, choose Edit, then New Record.

5. Enter information in the fields for the new record using the following substeps:

    a. In the Name field, type the name of the workflow policy component.

    b. In the Source Table Name field, select the source table for the workflow policy component.

    c. In the Source Column Name field, select the source column for the workflow policy component.

    d. In the Target Component Name field, select the target component for the workflow policy component.

    e. In the Target Column Name field, select the target column for the workflow policy component.

Mapping a Column to the Workflow Policy Component

After you create the workflow policy components for both objects, you map the workflow policy component to the assignment criteria. You do this by mapping a column to one of the workflow policy components.

To map a column to the workflow policy component

1. With the new record still selected, expand the Workflow Policy Component object in the Object Explorer, and then select the Workflow Policy Component Col object.

2. In the Workflow Policy Component Columns window, choose Edit, then New Record.

3. In the Workflow Column Name field, select the workflow column for the workflow policy component.

Mapping the Workflow Policy Component to the Assignment Attribute

After you map a column to the workflow policy component, you map the workflow policy component to the assignment attribute.

To map the workflow policy component to the assignment attribute

1. In the Object Explorer, expand the Assignment Attribute object, and then select the Assignment Attribute Column object.

2. In the Assignment Attribute Columns window, choose Edit, then New Record.

3. Enter information in the fields for the new record using the following substeps:

    a. In the Name field, type the name of the assignment attribute column.

    b. In the Assignment Object field, select the assignment object to which candidates are assigned for the assignment rule.

c. In the Workflow Policy Component field, select the workflow policy component to map to this assignment attribute.

d. In the Workflow Policy Component Column field, select the workflow policy component column to map to this assignment attribute.

e. In the Sequence field, specify the sequence of this assignment attribute.

4. Update the siebel.srf file and run various server administration tasks.

For instructions on updating your deployment with the new configurations, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Note: You must recompile the siebel.srf file whenever you add, inactivate, or delete any assignment object types, assignment criteria, and assignment attributes. Make sure that all projects are recompiled (not only the locked projects) if you inactivate or delete a top-level object type or assignment criteria. For more information about when to recompile the siebel.srf file, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Example of Using a Single Criterion for Two Assignment Objects

This topic gives one example of configuring Siebel Assignment Manager to assign candidates to two objects (Account and Opportunity) using criteria from only one of the objects. You might use this feature differently, depending on your business model.

See also "Using a Single Criterion for Multiple Assignment Objects" on page 6-26.

The example is divided into the following procedures; perform each procedure in the order provided.

1. "Creating a Workflow Policy Component Using the Account and Opportunity Assignment Objects" on page 6-28.

2. "Mapping the Opportunity Workflow Policy Component to the Opportunity Lead Contact Assignment Criteria" on page 6-29.

3. "Mapping the Account or Opportunity Workflow Policy Component to the Lead Quality Code Assignment Attribute" on page 6-30.

Creating a Workflow Policy Component Using the Account and Opportunity Assignment Objects

This topic is part of "Example of Using a Single Criterion for Two Assignment Objects" on page 6-28.

Use the following procedure to create a workflow policy component for two assignment objects.

To create a workflow policy component using the Account and Opportunity objects

1. Start Siebel Tools.

2. Select the workflow policy object for which you want to create a workflow policy component.

a. In the Object Explorer, select Workflow Policy Object.

   b. In the Workflow Policy Objects window, select the object.

   For this example, select Account.

3. With the Account assignment object selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

4. Add a new workflow policy component record.

   a. In the Object Explorer, expand Workflow Policy Component.

   b. In the Workflow Policy Component window, choose Edit, then New Record.

5. Enter information in the fields for the new record using the following steps:

   a. In the Name field, type the name of the workflow policy component.

   For this example, type Account/Opportunity.

   b. In the Source Table Name field, select the source table for the workflow policy component.

   For this example, select S_OPTY.

   c. In the Source Column Name field, select the source column for the workflow policy component.

   For this example, select PR_DEPT_OU_ID.

   d. In the Target Component Name field, select the target component for the workflow policy component.

   For this example, select Account.

   e. In the Target Column Name field, select the target column for the workflow policy component.

   For this example, select ROW_ID.

Mapping the Opportunity Workflow Policy Component to the Opportunity Lead Contact Assignment Criteria

This topic is part of "Example of Using a Single Criterion for Two Assignment Objects" on page 6-28.

After you create the workflow policy components for both objects, you map the workflow policy component to the assignment criteria. You do this by mapping a column to one of the workflow policy components. In this example, you map the Opportunity workflow policy component to the Opportunity Lead Contact assignment criteria.

To map a column to the workflow policy component

1. With the Account or Opportunity record still selected, expand the Workflow Policy Component object in the Object Explorer, and then select the Workflow Policy Component Col object.

2. In the Workflow Policy Component Columns window, choose Edit, then New Record.

3. In the Workflow Column Name field, select the workflow column for the workflow policy component.

For this example, select Opportunity Lead Quality.

Mapping the Account or Opportunity Workflow Policy Component to the Lead Quality Code Assignment Attribute

This topic is part of "Example of Using a Single Criterion for Two Assignment Objects" on page 6-28.

After you map a column to the workflow policy component, you map the workflow policy component to the assignment attribute. In this example, you map the Account or Opportunity workflow policy component to the Lead Quality Code assignment attribute.

To map an assignment attribute to the workflow policy component

1. In the Object Explorer, select the Assignment Attribute object.

2. In the Assignment Attributes window, select Lead Quality Code.

3. In the Object Explorer, expand the Assignment Attribute object and select the Assignment Attribute Column object.

4. In the Assignment Attribute Columns window, choose Edit, then New Record.

5. Enter information in the fields for the new record as described in the following substeps:

    a. In the Name field, type the name of the assignment attribute column.

        For this example, type `Account: Lead Quality`.

    b. In the Assignment Object field, select the assignment object to which candidates are assigned for the assignment rule.

        For this example, select Account.

    c. In the Workflow Policy Component field, select the workflow policy component to map to this assignment attribute.

        For this example, select Account/Opportunity.

    d. In the Workflow Policy Component Column field, select the workflow policy component column to map to this assignment attribute.

        For this example, select Opportunity Lead Quality.

    e. In the Sequence field, specify the sequence of this assignment attribute.

        For this example, type `2`.

6. Update the siebel.srf file and run various server administration tasks.

    For instructions on updating your deployment with the new configurations, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

    Note: You must recompile the siebel.srf file whenever you add, inactivate, or delete any assignment object types, assignment criteria, and assignment attributes. Make sure that all projects are recompiled (not only the locked projects) if you inactivate or delete a top-level object type or assignment criteria. For more information about when to recompile the siebel.srf file, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Figure 6–8 shows an example of defining an assignment rule for the Account and Opportunity objects using only the Lead Quality Code assignment criteria. The figure shows:

- An Account Opportunity assignment rule using the Opportunity and Accounts objects and One, Best Fit assignee filter.

> **Note:** Only the Opportunity object appears in the Objects to Be Assigned field, even though the Accounts object is also assigned.

- The Account Opportunity assignment rule has the Lead Quality Code rule criterion applied and uses the Compare to Person comparison method and the Include inclusion method. This assignment rule is always required.

Figure 6–8   Example of Defining an Assignment Rule for Two Objects Using One Assignment Criteria

About Inactive Workflow Policy Components for Siebel Assignment Manager

Table 6–7 shows the Workflow Policy Components that are by default inactive for the Opportunity Workflow Policy Object for Siebel Assignment Manager.

Table 6–7   Inactive Assignment Manager Workflow Policy Components

Workflow Policy Object	Workflow Policy Component
Opportunity	Indirect Account
Opportunity	Indirect Account Address
Opportunity	Indirect Account Industry
Opportunity	Indirect Account Primary Address
Opportunity	Indirect Account Synonym
Opportunity	Indirect Account/Industry
Opportunity	Opportunity/Indirect Account
Opportunity	Primary Account Address

If these Workflow Policy Components are required for your deployment, then activate the components by following the procedures that describe defining a Workflow Policy Component in *Siebel Business Process Framework: Workflow Guide*.

About the Relationship Between Attributes and Skills

When you define an assignment criterion, the data Siebel Assignment Manager uses for matching the object and candidate can come from two different types of sources, either attributes or skills. For more information about these entities, see "Assignment Concepts" on page 4-3.

- **Attribute.** An attribute is data that usually resides on a column on the base table. For example, Employee Salary resides on a column in the S_EMP_PER employee table and is an attribute. Similarly, Service Request Severity is an attribute on the Service Request object, because it is stored on the Service Request record.

  Some attributes exist outside the base table. For example, Account Zip Code is an attribute on the account, but does not exist on the Account table itself. Instead, Account Zip Code exists on the common address table known as S_ADDR_PER. It does not exist on the account table. However, there is a link between a given account record and all the addresses that belong to it.

- **Skill.** Skills are row-level extension attributes to objects (Opportunities, Service Requests, and so on) and candidates (employees, positions, and organizations). These are data stored in special child and grandchild tables of the base tables known as skill and skill item tables. For example, Language is an employee skill defined in the S_EMP_SKILL employee skill table and the S_EMP_SKILL_IT employee skill item table. The S_EMP_SKILL_IT table is a child table of the S_EMP_SKILL table. You can define skill and skill item tables for every assignment object through properties using Siebel Tools.

  Skills and skill items are defined in a similar manner to criteria and criteria values. If an employee has expertise for two products, Product A and Product B, then you define one skill (Product) and define two skill items under the same skill (Product A and Product B). Skills provide a way to create new attributes for a candidate or an object without extending the database schema.

  Objects also have skill and skill items. For example, you can define a Product skill with a Product A skill item for an activity to indicate that candidates must have the same product skill for assignment to that activity.

- **Attribute and skill.** Data could reside on an object or a candidate in the form of an attribute and a skill. For example, you can link an opportunity to a product using either of the following:

  - Products subtab and associating the product to the opportunity

  - Skills subtab and creating a product skill and a skill item for the product that you want to associate

  > **Note:** When matching assignment criteria, Assignment Manager looks for column-based attributes first, and, if they are not found, then Assignment Manager looks for a skill value in the designated skill tables.

For example, if you have an assignment rule using an Account State criteria and the Compare Object to Person comparison method, then Assignment Manager processes the rule in the following order:

1. Assignment Manager checks the assignment object.

   If the object to be assigned is the Opportunity assignment object, then Assignment Manager checks the value specified in Assignment Criteria, then Assignment Criteria Attribute in Siebel Tools. Then, Assignment Manager checks the Assignment Attribute, then Assignment Attribute Column value for the Opportunity object. In this case, this is Opportunity: Primary Account Primary State.

2. Assignment Manager checks the criteria attributes.

   Since Opportunity is a team- and position-based, Assignment Manager checks the value specified in Assignment Criteria, then Attribute in Siebel Tools. From the Attribute, Assignment Manager then checks the Assignment Attribute Column for that assignee, which in this case is Position: State.

3. If no Assignment Attribute Column exists for the person chosen, then Assignment Manager checks the skill table.

Assignment Manager evaluates criteria by comparing two strings, numbers, or dates using a comparison method. One of these literals sets the requirement, and the other literal must match the first literal for the criterion to pass.

Figure 6–9 shows an example of a sales assignment rule and how position, skills, and skill items relate to that rule.

Figure 6–9   Example of a Relationship Between Assignment Criteria and Skills for a Sales Implementation
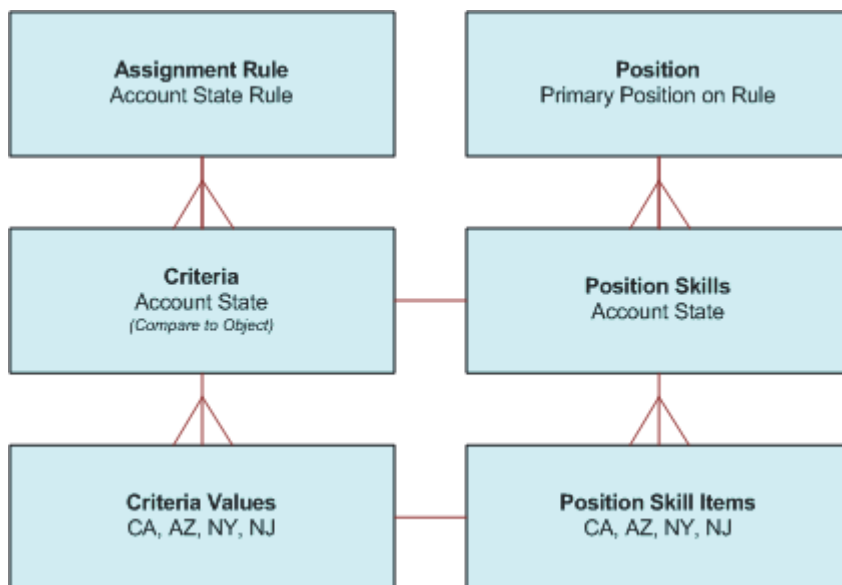
Disabling Assignment Attributes

In some cases, you might want to eliminate assignment criteria that appear in the Assignment Criteria view. To do so, you must first remove the unwanted criteria from the Assignment Criteria view. If you want to prevent the criteria from being used in any rule, then you must use Siebel Tools to also disable the corresponding assignment attribute, assignment attribute column, assignment criteria, and assignment criteria attribute object definitions.

Use the following procedure to disable an assignment attribute and avoid further use.

To disable an assignment attribute

1. In the GUI, delete criteria that you want removed from any assignment rules.

   For a procedure, see "Removing Assignment Criteria from Assignment Rules" on page 5-47.

2. Start Siebel Tools.

3. Disable the assignment attribute definition.

   a. In the Object Explorer, select the Assignment Attribute object.

   b. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

      The pencil icon appears in the W field to indicate that the project for the object is locked.

   c. In the Assignment Attributes window, select the assignment attribute that you want to disable.

   d. Check the Inactive field.

4. Disable the assignment attribute column definition.

   a. In the Object Explorer, expand the Assignment Attribute object, and then select the Assignment Attribute Column object.

   b. In the Assignment Attribute Columns window, select the assignment attribute column that you want to disable.

   c. Check the Inactive field.

5. Disable the assignment criteria definition.

   a. In the Object Explorer, select the Assignment Criteria object.

   b. In the Assignment Criteria window, select the assignment criteria that you want to disable.

   c. Check the Inactive field.

6. Disable the assignment criteria attribute definition.

   a. In the Object Explorer, expand the Assignment Criteria object, and then select the Assignment Criteria Attribute object.

   b. In the Assignment Criteria Attributes window, select the assignment criteria attribute that you want to disable.

   c. Check the Inactive field.

7. Recompile all projects (not just the locked projects) in the siebel.srf file.

   For instructions, see Step 1 of "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Updating Your Siebel Assignment Manager Deployment with New Configurations

After configuring Siebel Assignment Manager objects and attributes or altering assignment policies, it is necessary to recompile the siebel.srf file and restart various server components and tasks. Table 6–8 lists the required server tasks and

components that must be restarted based on the type of configuration process. (The task to restart Workflow Monitor Agent applies only to dynamic assignment.)

> **Note:** You must recompile the siebel.srf file whenever you add, inactivate, or delete any assignment object types, assignment criteria, and assignment attributes. Make sure that all projects are recompiled, not only the locked projects, if you inactivate or delete a top-level object type or assignment criteria.

Table 6–8   Server Administration Tasks After Configuring Assignment Manager

Configuration Process	Compile .srf File	Restart Assignment Manager	Regenerate Triggers	Restart Workflow Monitor Agent
Add or inactivate assignment objects	Yes	Yes	Yes	Yes
Configure assignment objects	No	Yes	Yes	Yes
Add, configure, or inactivate assignment attributes	Yes	Yes	Yes	Yes
Configure assignment attribute columns	No	Yes	Yes	Yes
Add, configure, or inactivate assignment criteria	Yes	Yes	Yes	Yes
Add, configure, or inactivate assignment criteria attributes	Yes	Yes	Yes	Yes
Activate, inactivate, or modify assignment policies	No	No	Yes	Yes

Use the following procedure to update your deployment with new configurations.

> **Caution:** Some steps in the following procedure might not be required for your particular deployment. Follow the steps as they apply (or do not apply) to the configuration process performed as shown in Table 6–8.

> **Note:** For information about checking out and checking in objects, see *Using Siebel Tools*.

To update your deployment with new configurations

1. Compile changes to the siebel.srf file, if necessary, and deploy it to the server.

   a. Choose Tools, then Compile Projects.

   b. In the Object Compiler dialog box, select the project (or projects) that you want to compile.

   c. Select the Siebel client repository file (default is siebel.srf) located in the Objects subdirectory within the Siebel client root directory.

   d. Click Compile.

For more information about when to recompile the siebel.srf file, see Table 6–8 and *Using Siebel Tools*.

Note: It is not necessary to recompile the siebel.srf file whenever you configure an assignment object or an assignment attribute column, but you must recompile the siebel.srf file whenever you add, inactivate, or delete any assignment object types, assignment criteria, or assignment attributes. Make sure that all projects are recompiled (not only the locked projects) if you inactivate or delete a top-level object type or assignment criteria.

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2. If you are running dynamic assignment, then perform the following steps:

   a. Stop the Workflow Monitor Agent server component.

   b. Regenerate triggers by running the Generate Triggers server component.

   c. Release assignment rules (if rules have changed) by clicking Release in the Assignment Rules List view.

   For more information about releasing assignment rules, see "Releasing Assignment Rules" on page 5-22.

   d. Restart the Workflow Monitor Agent server component.

   For more information about stopping and restarting server components, see *Siebel System Administration Guide*.

3. If you are running dynamic assignment, then stop and restart the Assignment Manager server component for the changes to take effect.

   a. Stop the Workflow Monitor Agent server component.

   b. Stop the Assignment Manager server component.

   c. Start the Assignment Manager server component.

   d. Start the Workflow Monitor Agent server component.

   For more information about stopping and restarting server components, see *Siebel System Administration Guide*.

   You must stop and restart the Assignment Manager server component whenever you add, inactivate, or delete any assignment object types, assignment criteria, or assignment attributes.

7

Working with Dynamic Candidates

This chapter describes how to configure and administer dynamic candidate functionality in Siebel Assignment Manager. It includes the following topics:

- "About Dynamic Candidates" on page 7-1
- "About Dynamic Candidate Types" on page 7-2
- "Examples of Dynamic Candidate Assignment" on page 7-4
- "Example of Assigning Dynamic Candidates to the Same Assignment Object" on page 7-6
- "Process of Defining Dynamic Candidates" on page 7-7

About Dynamic Candidates

Dynamic candidates are potential assignees for objects and behave in the same manner as static candidates. When processing rules, Siebel Assignment Manager determines candidates based on the value in the Person Candidates Source or Organization Candidates Source field on the assignment rule.

For example, if you associate an activity with an asset, and that asset has a team of employees, then you can configure Assignment Manager to automatically consider this team of employees for the activity and have the same employees available as potential candidates for other activities. The employees are connected to the activity through the asset and are known as *dynamic candidates*. The team of employees associated with the asset are stored in a database table called the *candidate table*. In this example, the only potential candidates are the employees that are associated with the asset that is associated with the activity.

For example, the S_ASSET_EMP table is the candidate table (team table) for the dynamic candidate Activity Asset Team.

By default, the Activity assignment object is preconfigured for two dynamic candidate teams. The teams are Activity: Account Team and Activity: Asset Team.

For the Activity: Asset Team, Assignment Manager dynamically determines the potential activity assignees (candidates) from the dynamic candidate configuration. That is, Assignment Manager joins the activity to the asset and retrieves employees associated with that activity's asset. The potential candidates are the group of employees for that particular activity record. However, the potential candidates can change from one activity to another.

For example, if you have two activities with different assets and employees, as shown in Table 7–1, then the resulting potential candidates for assignment are a union of the employees for each activity. In this example, the potential candidates are:

- Activity 1: Employee 1, 2, 3, and 4

- Activity 2: Employee 1, 2, and 5

Table 7–1 Example of Two Activities with Different Assets and Employees

Activity/Asset	Employee 1	Employee 2	Employee 3	Employee 4	Employee 5
Activity 1 with Asset 1	Yes	Yes	No	No	No
Activity 1 with Asset 2	Yes	No	Yes	Yes	No
Activity 2 with Asset 1	Yes	Yes	No	No	No
Activity 2 with Asset 3	No	No	No	No	Yes

Using Siebel Tools, you can configure dynamic candidates for other assignment objects. For more information about configuring assignment objects for dynamic candidates, see "Process of Defining Dynamic Candidates" on page 7-7.

About Dynamic Candidate Types

Depending on how an assignment object is configured, the object can be assigned as either the single-owner or multiple-owner type. Dynamic candidates are also assigned as single-owner or multiple-owner type, as shown in Figure 7–1.

Figure 7–1 shows the following relationships:

- Candidates are of the single-owner type when you can associate only one candidate (employee, position, or organization) with an assignment object.

  In this example, one employee is associated with a service request, as shown in the top left of Figure 7–1. For a more detailed example, see the first example in "Examples of Dynamic Candidate Assignment" on page 7-4.

- Candidates are of the multiple-owner type when you can associate many candidates (employees, positions, or organizations) with an assignment object.

  In this example, multiple employees are associated with an activity, as shown in the top right of Figure 7–1, and multiple positions are associated with an opportunity, as shown in the bottom half of Figure 7–1.

The main difference between single- versus multiple-owner is that in single-owner situations, Assignment Manager can assign only one candidate, whereas in multiple-owner situations, Assignment Manager can assign many candidates. For information about which assignment objects are restricted to a single assignee and which objects are capable of incorporating a team of assignees, see Table 4–3.

Using Siebel Tools, you configure dynamic candidates by modifying dynamic candidate object properties. For more information about configuring dynamic candidates, see "Process of Defining Dynamic Candidates" on page 7-7.

In the GUI, you define team-based criteria for assignment rules that have dynamic candidates as you would any other criteria, that is, you apply a comparison method and define the criteria values. Only the Compare to Person or the Compare to Organization comparison methods are supported for team-based criteria.

Figure 7–1   Examples of Single- Versus Multiple-Owner Dynamic Candidate Types
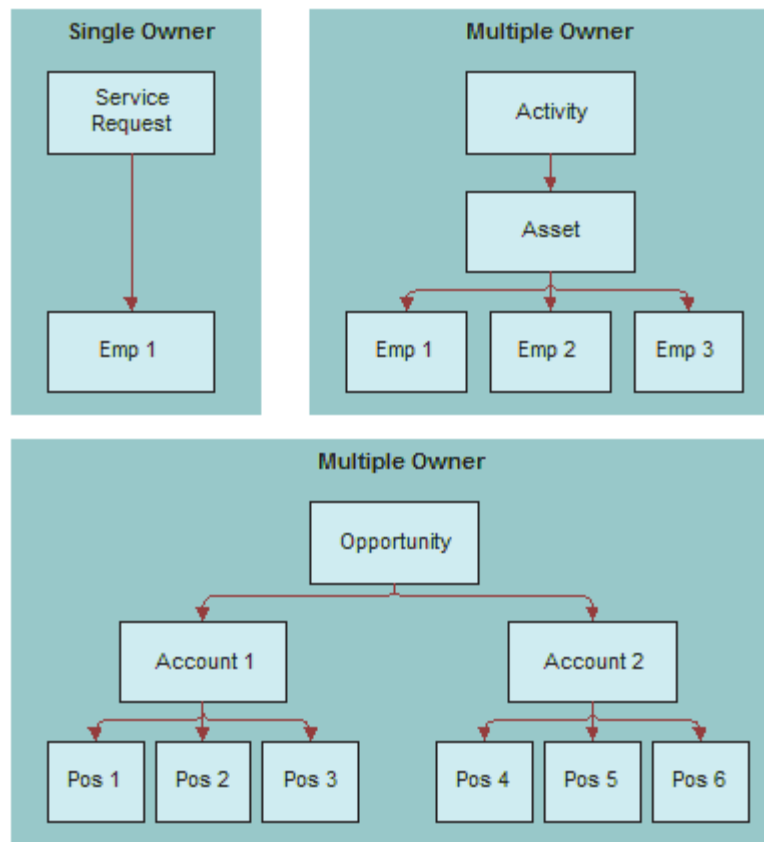
However, an assignment rule defined for dynamic candidates does not necessarily need team-based criteria. An assignment rule can have any of the following:

- Static candidates and regular criteria

- Dynamic candidates and regular criteria

- Dynamic candidates and team-based criteria

- Dynamic candidates and a combination of regular and team-based criteria

Scenario for Using Dynamic Candidates with Team-Based Objects

This scenario provides an example of assigning only Sales Team positions to an opportunity related to an account. You might use this feature differently, depending on your business model.

A large corporation has just identified a new opportunity for an existing account. The senior VP wants to make sure that only members of a specific sales team are assigned to this opportunity. The sales team for this account opportunity has the following positions:

Position Name	Role	Primary
VP, Global Services	Executive Sponsor	No
Sales East - Manager	Sales Team	No
Sales Rep 43	Sales Team	Yes

Examples of Dynamic Candidate Assignment

This topic gives two examples of how you might use dynamic candidate assignment. You might use this feature differently, depending on your business model.

Example 1: Dynamic Candidate Assignment for a Service Organization

Generally, in high-value machinery or asset-based service organizations, each asset is typically associated one or more field service engineers (FSE). These preassigned FSEs are often the customer's first contact for service requests, onsite visits for preventive maintenance, break-fix type of activities, and so on. In addition, these FSEs are usually ranked as Primary, Secondary, or Tertiary based on their seniority, skills, and so on.

This scenario provides an example of a process performed by field service engineers (FSEs) in an X-ray manufacturing company. Your company might follow a different process according to its business requirements.

During a typical day in a field service organization, a group of FSEs responds to customer phone calls and prepares for onsite visits for preventative maintenance and break-fix type of activities. In this scenario, a hospital calls for preventative maintenance for their X-ray machine as per warranty conditions.

To handle the incoming request, the service center agent creates a service request, and then creates a preventative maintenance activity for that service request. Next, the agent assigns that activity (by clicking the Assign button in one of the service request views), and the results window appears with the potential assignees for the asset team. The agent can then choose the appropriate candidate to complete the assignment process. Typically, FSEs are ranked as primary, secondary, or tertiary based on their seniority, skills, and so on, and the agent bases his decision on this ranking.

Example 2: Dynamic Candidate Assignment Using Skills and Scoring

Table 7–2 provides sample data for another example. The numbers at the top of the table correspond to the numbered text following the table. Because the resulting list of potential assignees is dependent on the assignee filter and other criteria stipulated in the assignment rule, a few resultant examples are provided, following the numbered text.

Table 7–2 Sample Data for Dynamic Candidates Assigned to an Activity

| 1 | | 2 | | 3 | 4 |
Asset Team Member	Type	Account Team Member	Type	Service Region	Skills
Employee 1	Primary	Employee 3	Primary	Employee 1	ENU
Employee 2	Secondary	Employee 6	Secondary	Employee 2	FRA
Employee 3	Tertiary	Employee 2	Tertiary	Employee 3	Not applicable
Employee 4	Tech Support	Employee 4	Tech Support	Employee 7	Not applicable
Employee 5	Never Send	Employee 7	Never Send	Employee 8	Not applicable

1. The asset has an asset team and each employee in that team has a type. All the employees in this team are eligible candidates for the activity. The employees are scored based on their type and the following assignment rules:

   - If Organization = Americas, then the primary score = 100.

   - If Organization = Europe, then the primary score = 50.

Based on the rules and their type, assume that the asset team scores are:

Employee 1 = 100

Employee 2 = 75

Employee 3 = 50

Employee 4 = 25

Employee 5 = 0

2. The activity has an account team and each employee in that team has a type. All the employees in this team are eligible candidates for this activity. The employees are scored based on their type.

The account team scores are:

Employee 3 = 80

Employee 6 = 60

Employee 2 = 30

Employee 4 = 10

Employee 7 = 0

3. The activity has a service region, and the service region has employees. All employees are eligible candidates for skill matching. You match activity skills and employee skills, but you can specify other matching criteria as well.

Employee 1 = 100

Employee 2 = 150

Employee 3 = 75

Employee 7 = 200

Employee 8 = 25

4. This step determines the final list of potential candidates for this activity. The following are two possible results:

- Given the AddScores parameter is set to TRUE, the list is the *union* of the employees from all three previous lists, and employee scores are added if they exist in more than one list.

  The final list of candidates for this activity with their corresponding scores is:

  Employee 1 = 200 (100 + 100)

  Employee 2 = 255 (75 + 30 + 150)

  Employee 3 = 205 (50 + 80 + 75)

  Employee 4 = 35 (25 + 10)

  Employee 5 = 0

  Employee 6 = 60

  Employee 7 = 200 (0 + 200)

  Employee 8 = 25

- Given the AddScores parameter is set to FALSE, the scores are not added, so the highest-scoring employee (Employee 7) is selected.

  The final list of candidates for this activity with their corresponding scores is:

Employee 1 = 100

Employee 2 = 150

Employee 3 = 80

Employee 3 = 75

Employee 4 = 25

Employee 5 = 0

Employee 6 = 60

Employee 7 = 200

Employee 8 = 25

Additional possible final results for this example include:

- If the assignment rules uses a One, Best Fit assignee filter, then only the highest scoring employee is assigned, so Employee 2 is the only eligible candidate for assignment.

- If the assignment rule uses an All Above Minimum assignee filter and the minimum score for the rule is 200, then Employee 1, 2, and 3 are potential candidates for the assignment.

Example of Assigning Dynamic Candidates to the Same Assignment Object

This topic gives one example of configuring Siebel Assignment Manager to assign a manager of an existing team to an account, contact, or opportunity belonging to a subordinate. You might use this feature differently, depending on your business model.

To assign a manager to an account, contact, or opportunity record belonging to a subordinate

1. Start Siebel Tools.

2. Create a new symbolic string, and then apply this definition to the Display Name property for the Account Assignment Object.

   a. In the Object Explorer, select Symbolic String.

   b. Choose Edit, then New Record, to create a new symbolic string record.

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

3. Create a new Dynamic Candidate record.

   a. In the Object Explorer, expand Workflow Policy Object, then expand Assignment Object, and then select Dynamic Candidate.

   b. Choose Tools, then Lock Project (or Alt+L), to lock the project.

   c. In the Dynamic Candidates window, choose Edit, then New Record, to add a new record with the following property settings:

      – Display Name = Reporting Candidate

      – Team Type = Position

    d. In the Object Explorer, expand Dynamic Candidate Component, and in the Dynamic Candidate Component list, choose Edit, then New Record, to add a new record with the following property settings:

- – Name= Account Position
- – Primary = Y
- – Source Table Name = S_ACCNT_POSTN
- – Source Column Name = OU_EXT_ID

4. Create another Dynamic Candidate record with the following property settings:

- ■ Name = Reporting Position
- ■ Candidate Table = TRUE
- ■ Source Table Name = S_PARTY_RPT_REL
- ■ Source Column Name = SUB_PARTY_ID
- ■ Target Component Name = Account Position
- ■ Target Column Name = POSITION_ID
- ■ Candidate Id = PARTY_ID
- ■ Set the Display Name - String Reference property to the symbolic string that you created in Step 2.

> **Note:** After configuration, the display name for the team appears in the Person Candidates Source or the Organization Candidates Source list of value (LOV) fields on the assignment rule (in the Administration - Assignment screen, and the Assignment Rules List view).

5. Check in the configuration to the server database.

6. Launch the Siebel application.

7. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

8. In the Assignment Rules list, select the assignment rule for which you want to apply this configuration.

9. Set the Person Candidates Source field to the dynamic candidate display name that you created Step 3.

10. Release the rules.

> **Note:** For testing purpose, it is recommended that you run an AsgnBatch server component job to verify the assignees.

Process of Defining Dynamic Candidates

If you plan to create new dynamic candidate teams, then you must first modify the Dynamic Candidate objects before the candidates are available for adding to your assignment rules. The process is similar to Workflow Policy Component and Workflow Policy Component Column configuration. Using Siebel Tools, you modify the following object types:

- Dynamic Candidate

- Dynamic Candidate Component

- Dynamic Candidate Component Col

Dynamic candidate configuration is a logical definition of the underlying team table, candidate column, and related joins to the assignment object. The Dynamic Candidate properties define the dynamic candidate name, team type, and so on. The Dynamic Candidate Component properties define the table and column names used in the join, and the Dynamic Candidate Component Col properties define columns used in the team-based criteria.

> **Note:** If you plan to use only the predefined dynamic candidate teams (Activity Account Team or Activity Asset Team) for your assignment rules, or if you have already created other dynamic candidate teams, then you can skip most of the steps and proceed directly to Step 5.

The process for defining dynamic candidate is a multi-step process and requires the following tasks. These tasks might vary according to your organization's business practices.

1. "Configuring Assignment Objects for Dynamic Candidates" on page 7-8

2. "Configuring Join Specifications for Dynamic Candidate Object Definitions" on page 7-9

3. "Mapping Columns From Source Tables to Team-Based Criteria" on page 7-11

4. (Optional) "Copying Dynamic Candidate Attribute Columns to the Team Table" on page 7-12

5. "Adding Dynamic Candidate Teams to Assignment Rules" on page 7-13

Configuring Assignment Objects for Dynamic Candidates

Dynamic candidates are the potential assignable candidates obtained from related business entities when assigning an object. The Dynamic Candidate Component object properties define the dynamic candidate name, team type, and so on.

Using Siebel Tools, you must first modify the properties of the Dynamic Candidate object type.

This task is a step in "Process of Defining Dynamic Candidates" on page 7-7.

Use the following procedure to configure the Dynamic Candidate object type for dynamic candidates.

To configure an assignment object for dynamic candidates

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and in the Workflow Policy Objects window, select the object that you want to configure.

> **Tip:** If Workflow Policy Object is not visible in the Object Explorer, then you can enable it in the Development Tools Options dialog box (View, then Options, and then Object Explorer).

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, expand Assignment Object, and then select Dynamic Candidate.

5. In the Dynamic Candidates window, choose Edit, then New Record.

6. In the new record, enter values for the relevant information.

Table 7–3 provides descriptions of some of the Dynamic Candidate object properties.

Table 7–3   Dynamic Candidate Object Properties

Property	Description
Name	The name of the dynamic candidate team. For example, Activity: Asset Team.
Display Name	An alternative name to display to the Siebel Client. This property is optional. If no display name is provided, then the value in the Name field is used. By default, this is set to NULL.
Display Name - String Reference	The display name for this team appearing in the Person Candidates Source or the Organization Candidates Source list of value (LOV) fields on the assignment rule applet. **Note:** You must first create a string reference in the Symbolic String object, and then set the Display Name - String Reference to the symbolic string that you created.
Display Name - String Override	This property allows users to enter a display name without entering a symbolic string. The value in this property is what is displayed in the GUI, and it overrides any other display name entries. However, because this value has no symbolic string, it is not translatable. For this reason, use caution when assigning an override.
Inactive	Indicates whether the object is active or inactive. By default, this value is set to FALSE.
Team Table Attribute Id Column	The name of the column in the team table that contains the attribute ID, that joins to the Attribute Id column.
Team Table Candidate Id Column	The name of the column in the team table that contains the candidate ID, the foreign key to the candidate base table.
Team Type	Indicates whether or not the candidate team is employee-, organization-, or position-based. **Note:** If the Team Type property is not set, then the dynamic candidate will not be displayed in the Person Candidates Source drop-down list for the assignment rule.

Configuring Join Specifications for Dynamic Candidate Object Definitions

Siebel Assignment Manager supports complex joins to relate base table with other related entities. The Dynamic Candidate Component object properties define the table and column names used when performing a join from the assignment object primary table to the candidate table to retrieve the dynamic candidates.

Using the dynamic candidate feature, you can configure Assignment Manager to identify related business entities and retrieve potential candidates from these entities.

For example, you use the dynamic candidate feature when:

- Assigning a position, such as Executive Sponsor, from the account team to a related child account

- Assigning account sales representative positions to a child account's opportunity

- Assigning an activity and you want to evaluate only employees who belong to that activity's service region, and if necessary, then add more criteria for product skills, and so on.

Because potential assignees for dynamic candidates can be derived from various related business entities, you must configure the relationship between these entities.

This task is a step in "Process of Defining Dynamic Candidates" on page 7-7.

Use the following procedure to configure join specifications for dynamic candidates.

> **Note:** Before you can successfully use join specifications for creating dynamic candidate definitions, you must have a thorough understanding of database administration and how to use Siebel Tools. Also familiarize yourself with the basics of the underlying Siebel Business Applications architecture. For more information, see *Using Siebel Tools* and *Siebel Deployment Planning Guide.*

To configure join specifications for dynamic candidates

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and in the Workflow Policy Objects window, select the object that you want to configure.

   > **Tip:** If Workflow Policy Object is not visible in the Object Explorer, then you can enable it in the Development Tools Options dialog box (View, then Options, and then Object Explorer).

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, expand Assignment Object, and then expand Dynamic Candidate.

5. Expand the Dynamic Candidate object further, and then select Dynamic Candidate Component.

6. In the Dynamic Candidate Component window, choose Edit, then New Record.

7. In the new record, enter values for the relevant information.

Table 7–4 provides descriptions of some of the Dynamic Candidate Component properties.

Table 7–4   Dynamic Candidate Component Object Properties

Property	Description
Additional Join Spec	Use this property to specify an additional join.
Candidate Id Column	The column in the Team table containing the ID of the candidate (employee, position, or organization).
Candidate Table	The name of the source table at the last level of a join.
Inactive	Indicates whether the component is active or inactive.
Name	The name of the dynamic candidate component.

Table 7–4   (Cont.) Dynamic Candidate Component Object Properties

Property	Description
Primary	When checked, indicates whether the dynamic candidate component is the primary for the dynamic candidate selected for the assignment object.
Score Column	The column in the Team table containing scores of the candidates.
Source Column Name	The column in the source table that relates to another dynamic candidate component.
Source Table Name	The table that the dynamic candidate component is based on.
Target Column Name	The column in the source table that relates to another dynamic candidate component.
Target Component Name	The target dynamic candidate component that is related to this dynamic candidate component.

> **Note:**   Each dynamic candidate specified can have only one primary dynamic candidate component.

Mapping Columns From Source Tables to Team-Based Criteria

Using Siebel Tools, you create records in the Dynamic Candidate Component Col object to map columns in a source table, at a particular level in the join, to a team-based assignment criterion. You do so by specifying the attribute column name and the correct assignment criteria attribute name.

This task is a step in "Process of Defining Dynamic Candidates" on page 7-7.

Use the following procedure to map columns from source tables to team-based criteria.

To map columns from a source table to team-based criterion

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and in the Workflow Policy Objects window, select the object that you want to configure.

   > **Tip:**   If Workflow Policy Object is not visible in the Object Explorer, then you can enable it in the Development Tools Options dialog box (View, then Options, and then Object Explorer).

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, expand Assignment Object, and then expand Dynamic Candidate.

5. Expand the Dynamic Candidate object further, and navigate to Dynamic Candidate Component Col.

6. In the Dynamic Candidates Component Columns window, choose Edit, then New Record.

7. In the new record, enter values for the relevant information.

Table 7–5 provides descriptions of some of the Dynamic Candidate Component Col object properties.

Table 7–5   Dynamic Candidate Component Col Object Properties

Property	Description
Assignment Criteria Attribute Name	The name of the assignment criteria attribute.
Assignment Criteria Name	The name of the assignment criteria.
	Note: This property is automatically populated when you select the assignment criteria attribute name.
Inactive	Indicates whether the component is active or inactive.
Name	The name of the dynamic candidate component column.
Parent Name	The name of the object definition's parent. This value is supplied by the system.

Copying Dynamic Candidate Attribute Columns to the Team Table

Siebel Assignment Manager supports copying of dynamic candidate attribute columns and stamping of attributes on each candidate obtained through a join on the team table by copying dynamic candidate attribute values at any level in an *n*-level join to the results team table.

You can create multiple entries to create joins. One of those entries you flag as the candidate table. The source table for that record is the team table for that dynamic candidate.

This task is an optional step in "Process of Defining Dynamic Candidates" on page 7-7.

Use the following procedure to specify the column name in the results table where you want the attribute values stamped.

> **Note:** You can write results to both reporting or operational tables.

To copy dynamic candidate attribute columns to the team table

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and in the Workflow Policy Objects window, select the object that you want to configure.

   > **Tip:** If Workflow Policy Object is not visible in the Object Explorer, then you can enable it in the Development Tools Options dialog box (View, then Options, and then Object Explorer).

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, expand Assignment Object, and then expand Dynamic Candidate.

5. Expand the Dynamic Candidate object further, and navigate to Dynamic Candidate Component Col.

6. In the Dynamic Candidates Component Columns window, choose Edit, then New Record.

7. In the new record, enter values for the relevant information.

Table 7–6 provides descriptions of some of the Dynamic Candidate Component Col object properties.

Table 7–6   Dynamic Candidate Component Col Object Properties Used for Stamping Attributes

Property	Description
Attribute Column Name	The name of the column in the source table.
Copy Column Name	The name of the column stamped on the team table when working in operational mode.
Reporting Copy Column Name	The name of the column stamped on the Name reporting table when working in reporting mode.

Adding Dynamic Candidate Teams to Assignment Rules

You can add dynamic candidates teams (position or employee) or organization dynamic candidate teams to assignment rules. You can use either the predefined dynamic candidate teams provided in the application or create your own teams using Siebel Tools.

This task is a step in "Process of Defining Assignment Rules" on page 5-3 as well as "Process of Defining Dynamic Candidates" on page 7-7.

Use one of the following procedures to add predefined dynamic candidate teams to your assignment rules.

> **Note:**   If you plan to create you own dynamic candidate teams, then you must use Siebel Tools to configure the teams before implementing the following procedure. For more information about configuring dynamic candidate teams, see "Configuring Assignment Objects for Dynamic Candidates" on page 7-8.

Adding a Person Dynamic Candidate Team to an Assignment Rule

Use the following procedure to add a person dynamic candidate team to an assignment rule.

To add a person dynamic candidate team to an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to add a dynamic team.

3. Click the Person Candidates Source drop-down list and choose one of the following:

    ■   Activity Account Team

    ■   Activity Asset Team

    ■   All People

    ■   From Rule

    ■   Any team that you predefined using Siebel Tools

> **Note:** For territory management, you can choose from several other predefined values. For more information about these values, see *Siebel Territory Management Guide*.

You use a similar procedure for adding organization dynamic candidate teams to assignment rules. However, there are no predefined organization dynamic teams from which to choose in the seed data; you must create your own organization teams.

Adding an Organization Dynamic Candidate Team to an Assignment Rule

Use the following procedure to add an organization dynamic candidate team to an assignment rule.

To add an organization dynamic candidate team to an assignment rule

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, drill down on the assignment rule for which you want to add a dynamic team.

3. Click the Organization Candidates Source drop-down list and choose one of the following:

   - All Organizations

   - From Rule

   - Any team that you predefined using Siebel Tools

8

Assignment Rule Administration for Delegated Assignment

This chapter explains how to delegate assignment rules to others, and how others can inherit and further define these delegated rules. The tasks explained in this chapter are for delegated administrators (DAs), and as such, the procedures are documented using the Administration - Delegated Assignment screen and views.

The topics in this chapter are organized to present information in a sequence roughly corresponding to the order in which you are likely to be concerned with the subjects described when using delegated assignment. However, your company might follow a different process according to its business requirements for using Siebel Assignment Manager.

This chapter includes the following topics:

- "About Delegated Assignment" on page 8-1
- "About Assignment Rule Group Hierarchy" on page 8-5
- "Automating the Menu Options: Regenerate Denormalized Rule Hierarchy and Rule Group Hierarchy" on page 8-9
- "Setting Up Assignment Responsibility for Designees" on page 8-10
- "Process of Making an Assignment Rule Inheritable" on page 8-11
- "Process of Inheriting and Refining Delegated Assignment Rules" on page 8-13
- "Examples for Using Delegated Assignment" on page 8-14

> **Note:** Although the procedures in this chapter are written for the Administration - Delegated Assignment screen and views, you can also perform many of these same operations using the Rule Group Explorer views in the Administration - Assignment screen.

> **Caution:** Before performing the tasks in this chapter, familiarize yourself with the assignment administration tasks explained in Chapter 5, "Assignment Rule Administration." Otherwise, you might find the procedures difficult to follow.

About Delegated Assignment

Delegated assignment provides people (positions) other than the assignment administrator the ability to create and manage assignment rules. The top assignment

administrator (AA) position can delegate rule administration to other positions and partners to route leads, activities, accounts, and other objects to employees or positions. These delegates are known as DAs. DAs can, in turn, delegate assignment rule administration to other DAs. This hierarchical assignment rule inheritance feature might be suitable for sales organizations and organizations that work closely with partners.

Delegated assignment allows AAs the ability to enforce core business logic using rule inheritance, while allowing delegated administrators (DAs) the ability to further refine that logic and specialize their assignment rules for their unique circumstances.

However, DAs can only inherit rules from their parent rule group. When inheriting a rule, DAs are allowed to choose only from rules in the parent rule group in which the owner of their rule group is currently a candidate (employee or position). The logic specified on a rule is enforced on all inherited rules by making sure that the rule contains nonremovable and noneditable copies of all criteria from the parent rule. DAs can further refine the rule's logic, by adding new criteria to inherited rules by either creating new criteria or by adding and modifying criteria templates. DAs can also delete any rule they choose to inherit from the parent rule group. Candidates (employees and positions) of rules are not inherited, so users can choose anyone their organization visibility allows as a candidate. Workload criteria, organization workload criteria, and organizations are not inherited.

If you plan to use delegated assignment, then the top AA position must first prepare the assignment rules for inheritance. After a rule is inherited and changes are made to the original rule (such as adding criteria to, expiring, or deleting the rule), those changes are propagated down the hierarchy to all rules that were inherited from it.

This topic contains the following information:

- "Scenario for Delegated Assignment" on page 8-2
- "Sample Delegated Assignment Process Flowchart" on page 8-4
- "About Setting Up Assignment Rules for Delegation" on page 8-5

Scenario for Delegated Assignment

This topic is part of "About Delegated Assignment" on page 8-1.

This scenario gives one example of how you can dynamically assign candidates. You might use this feature differently, depending on your business model.

For this scenario, candidates are assigned to an activity based on the information provided in Table 8–1. The numbers at the top of the table correspond to the numbered text following the table.

Table 8–1   Sample Data for Dynamic Candidates Assigned to an Activity

1 Asset Team Member	Type	2 Account Team Member	Type	3 Service Region	4 Skills
Employee 1	Primary	Employee 3	Primary	Employee 1	ENU
Employee 2	Secondary	Employee 6	Secondary	Employee 2	FRA

Table 8–1   (Cont.) Sample Data for Dynamic Candidates Assigned to an Activity

1		2		3	4
Asset Team Member	**Type**	**Account Team Member**	**Type**	**Service Region**	**Skills**
Employee 3	Tertiary	Employee 2	Tertiary	Employee 3	Not applicable
Employee 4	Tech Support	Employee 4	Tech Support	Employee 7	Not applicable
Employee 5	Never Send	Employee 7	Never Send	Employee 8	Not applicable

1. The activity has an asset team and each employee in that team has a type. All the employees in this team are eligible candidates for the activity. The employees are scored based on their type and the following assignment rules:

   - If Organization = Americas, then the primary score = 100.

   - If Organization = Europe, then the primary score = 50.

   Based on the rules and their type, assume that the asset team scores are:

   Employee 1 = 100

   Employee 2 = 75

   Employee 3 = 50

   Employee 4 = 25

   Employee 5 = 0

2. The activity has an account team and each employee in that team has a type. All the employees in this team are eligible candidates for this activity. The employees are scored based on their type.

   The account team scores are:

   Employee 3 = 80

   Employee 6 = 60

   Employee 2 = 30

   Employee 4 = 10

   Employee 7 = 0

3. The activity has a service region, and the service region has employees. All employees are eligible candidates for skill matching. You match activity skills and employee skills, but you can specify other matching criteria as well.

   Employee 1 = 100

   Employee 2 = 150

   Employee 3 = 75

   Employee 7 = 200

   Employee 8 = 25

4. This step determines the final list of candidates for this activity. This list is the *union* of the employees from all previous three lists, and employee scores are added if they exist in more than one list.

The final list of candidates for this activity with their corresponding scores is:

Employee 1 = 200 (100 + 100)

Employee 2 = 255 (75 + 30 + 150)

Employee 3 = 205 (50 + 80 + 75)

Employee 4 = 35 (25 + 10)

Employee 5 = 0

Employee 6 = 60

Employee 7 = 200 (0 + 200)

Employee 8 = 25

All employees with a passing score pass the rule. In this example, if the minimum score for the rule is 200, then Employee 1, 2, 3, and 7 pass and Employee 2 is set as the primary because that employee has the highest score.

Sample Delegated Assignment Process Flowchart

This topic is part of "About Delegated Assignment" on page 8-1.

Figure 8–1 provides a sample process flowchart of the delegated assignment feature. Each of the process steps are explained in further detail later in this chapter.

Figure 8–1   Sample Process Flowchart for Delegated Assignment
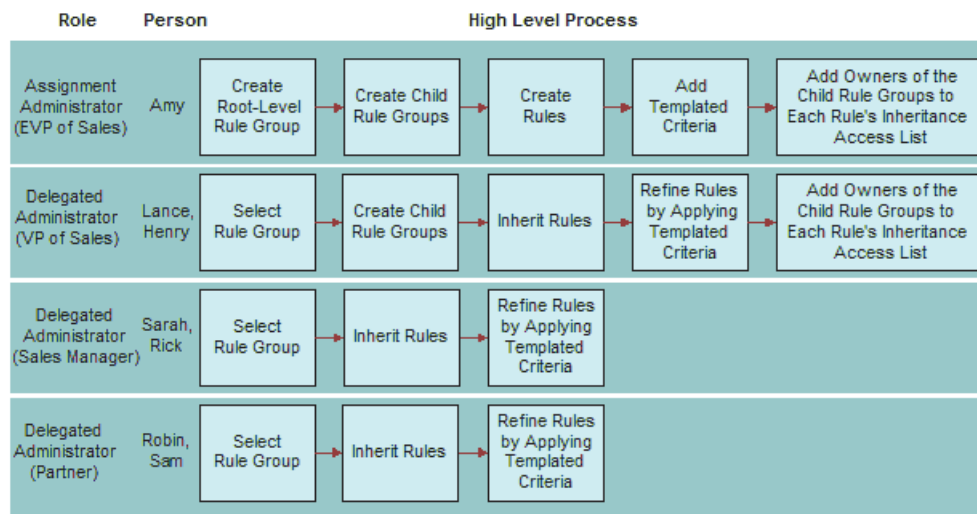
Figure 8–1 shows the following relationships:

- Amy is the EVP of Sales and is the assignment administrator. Amy must first create root-level rule groups, child rule groups, and rules, and add criteria templates and owners of the child rule groups to the assignment rules before delegated assignment can be implemented.

- Lance and Henry are Sales VPs and are delegated administrators (second-tier). Lance and Henry must first inherit rules in the rule group Amy created for their respective areas, and can then further refine and delegate those rules further down the hierarchy.

- Rick and Sarah are Sales Managers and are delegated administrators (third-tier). Rick and Sarah inherit the rules created by Lance for their respective areas, and then further refine those rules for their sales representatives.

- Robin and Sam are Partners and are delegated administrators (third-tier, similar to Rick and Sarah). Robin and Sam inherit the rules created by Henry for their respective areas, and then further refine those rules for their sales representatives.

> **Note:** After a rule is inherited in child rule groups and changes are made to the original rule, such as adding criteria to, expiring, or even deleting the rule, those changes are propagated down the hierarchy to all rules that were inherited from it.

About Setting Up Assignment Rules for Delegation

This topic is part of "About Delegated Assignment" on page 8-1.

If you plan to use delegated assignment, then the top AA position must first prepare the assignment rules for inheritance in addition to the tasks presented in Chapter 5, "Assignment Rule Administration."

The top AA position typically creates rules and rule criteria templates from which all other delegated rules and rule criteria are created using the Administration - Assignment views. DAs can then inherit these predefined rules and further refine those rules by adding new criteria or apply criteria templates criteria using the Administration - Delegated Assignment views. These refined rules can again be inherited and modified by other DAs at a lower level in the hierarchy, and so on. At each level in the hierarchy, administrators can assign designees to act on their behalf. Designees can view and edit rule groups (and the rules within those rules groups) on behalf of an AA or DA. Figure 8–2 shows an example of this *n*-tier hierarchical relationship.

About Assignment Rule Group Hierarchy

A *rule group* is a group of categorized assignment rules. You might think of a rule group as similar to a territory. The delegated assignment feature provides a hierarchical (tree) distribution of rule groups, as shown in Figure 8–2. The logic defined in the rules in rule groups at the top of the hierarchy is enforced down the hierarchy, but can be refined.

This topic contains the following information, which describes rule group hierarchy in further detail.

- "Rule Group Explorer" on page 8-6

- "Parent and Root-Level Rule Groups" on page 8-7

- "Assignment Owners and Designees" on page 8-8

- "Assignment Rule Inheritance" on page 8-8

- "Rule Group Visibility and Permissions" on page 8-8

See also the following topics:

- "Automating the Menu Options: Regenerate Denormalized Rule Hierarchy and Rule Group Hierarchy" on page 8-9

- "Setting Up Assignment Responsibility for Designees" on page 8-10

Rule Group Explorer

This topic is part of "About Assignment Rule Group Hierarchy" on page 8-5.

The Rule Group Explorer is one of the views in the assignment administration screen. The Rule Group Explorer, shown in Figure 8–2, is a graphical representation of the rule group hierarchy tree and provides a convenient way to navigate the entire rule group hierarchy. The relationships between parent and child rule groups is a hierarchy.

Figure 8–2   Sample Rule Group Explorer
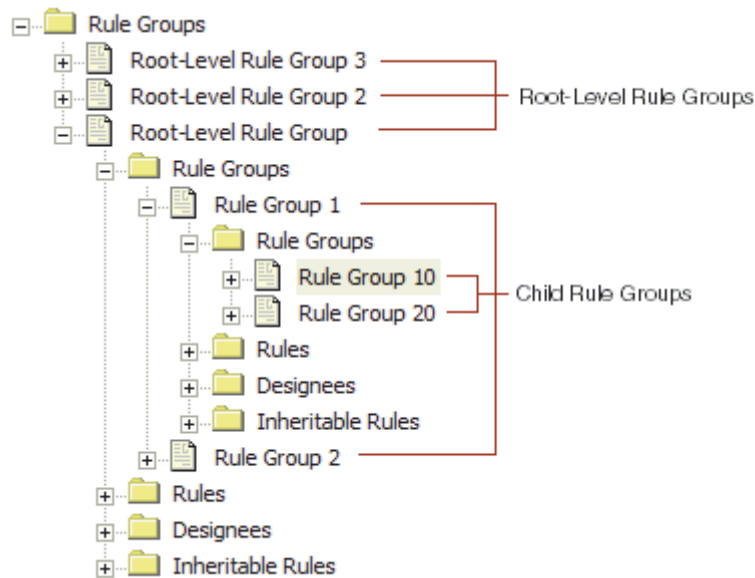
Figure 8–2 shows the following relationships:

■ Root-level rule groups

■ Child rule groups and their characteristics:

– Rule Groups (lists all child rule groups for the current rule group)

– Rules

– Designees

– Inheritable Rules

Rules in rule groups at the bottom of a hierarchy are processed first, moving up one level each time no rule in the previous level passes. Within each level in the hierarchy, the rules are processed by ascending order of sequence number.

Administrators (AAs and DAs) use the Rule Group Explorer to create and maintain rule group hierarchies. Assignment administrators have organization visibility, so they see the rules for their specific organization or organizations. Typically, AAs use the Rule Group Explorer views in the Administration - Assignment screen but can also use the views in the Administration - Delegated Assignment screen.

Delegated administrators must use the My Rule Group Explorer view in the Administration - Delegated Assignment screen and can see only rule groups for which they are an owner or designee, and the rule groups and rules that appear below (subtree).

DAs can only create a new rule group below one for which they are the owner or designee; this new rule group is a child rule group of the original rule. DAs can also create grandchild rule groups, great-grandchild rule groups, and so on.

Parent and Root-Level Rule Groups

This topic is part of "About Assignment Rule Group Hierarchy" on page 8-5.

A *parent rule group* is a rule group that appears directly above another rule group in the hierarchy. A root-level rule group is a rule group without a parent. For example, in Figure 8–3, RG 2 is the parent of RG 4, but RG 2 is not a root-level rule group. Only RG 1 is a root-level rule group, because it is the only rule group in the hierarchy that does not have a parent rule group (and, subsequently, is at the top of the hierarchy).

Figure 8–3 provides a sample rule hierarchy that shows how parent and root rule groups relate to other rule groups in the same hierarchy.

Figure 8–3   Relationships Between Parent and Child Rule Groups in a Hierarchy
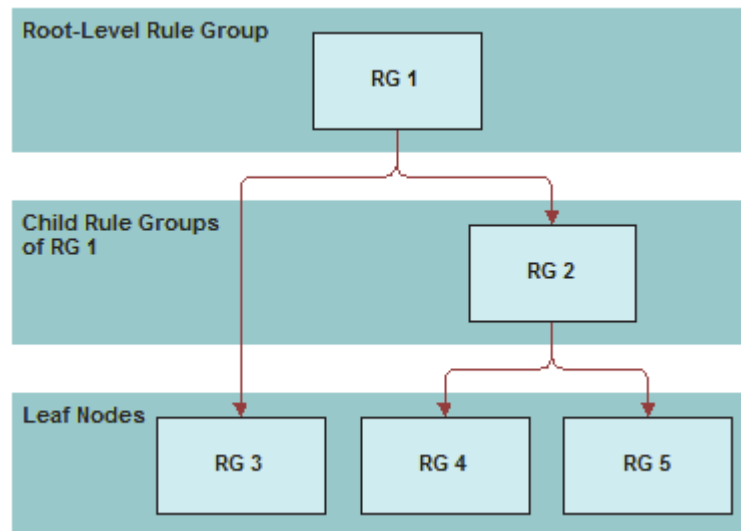
Figure 8–3 show the following relationships:

- Rule groups that have no parent are root-level rule groups. There is only one root-level rule group for each hierarchy and that root-level rule group appears at the top of the hierarchy (RG1).

   > **Note:**   Only assignment administrators (not delegated administrators) can create root-level rule groups.

- Rule groups that are parents to no other rule groups (rule groups with no child rule groups) are considered leaf rule groups and appear at the bottom of the hierarchy (RG3, RG4, and RG5).

- Rules at the leaf nodes are processed first by Assignment Manager. If none of those rules pass, then Assignment Manager processes rules in the set of rule groups above the leaf nodes, and so on, until the root-level rule group is processed. This method of processing the rules ensures that, if a rule is inherited from one rule group to another, then the inherited rule is passed first.

> **Note:** The Default Rule Group is a root-level rule group (has no parent) as well as a leaf node (has no child).

Assignment Owners and Designees

This topic is part of "About Assignment Rule Group Hierarchy" on page 8-5.

Siebel Assignment Manager uses ownership as a means to determine whether a particular rule is eligible for inheritance by a rule group. Each rule group must have an *owner*, and a rule group defaults to the creator (as owner) when a new rule group is created.

> **Note:** The concept of ownership is an integral part of delegated assignment functionality; however, if you do not use delegated assignment, then ownership serves no functional role.

Owners can delegate their responsibility to designees with the same rights as an owner. A *designee* is an individual who can view and edit rule groups (and the rules within those rules groups) on behalf of an owner. The owner and the designees of a rule group are collectively known as delegated administrators (DAs).

Assignment Rule Inheritance

This topic is part of "About Assignment Rule Group Hierarchy" on page 8-5.

Rule inheritance allows assignment administrators (AAs) to enforce business logic, while allowing delegated administrators (DAs) to further refine that logic. In addition, inheritors of rules can refine those same rules and specialize them for their unique circumstances.

Criteria templates are special criteria that can be applied to inherited rules. Assignment Manager does not process criteria templates until an inheritor of an assignment rule chooses to apply a template to the inherited rule.

To use criteria templates, administrators (AA or DA) must first create criteria templates for inheritable rules by checking the Template field in the Criteria list for the criteria they want as templates. When an assignment rule is inherited, the inheritor has the option to either apply the criteria templates into an actual criterion (by checking the Create From Templates button in the Criteria view tab) or to create a new criterion for the inherited rule.

> **Note:** Assignment Manager ignores criteria that have the Template field checked on an assignment rule until such time as that rule is inherited and the criteria template is applied to the inherited rule.

> **Tip:** It is recommended that AAs create criteria templates to assist DAs in rule creation. Doing this reduces the need for DAs to fully understand the steps required and implications of creating new logic.

Rule Group Visibility and Permissions

This topic is part of "About Assignment Rule Group Hierarchy" on page 8-5.

AAs have visibility only for the rule groups (and the rules within those rule groups) for their specific organization (unless given permission to the All Rule Groups Across Organizations view). DAs have visibility only to the rule groups for which they are an owner (or designee) and each of their rule groups' subtrees. An owner of a particular rule group cannot be the owner (or designee) of a rule group lower in the hierarchy (subtree), but can be an owner (or designee) for rule groups in other hierarchies.

> **Tip:** DAs can only inherit rules from a parent rule group and can refine inherited rules to specialize them, but cannot remove any of the logic specified in the original rule.

Automating the Menu Options: Regenerate Denormalized Rule Hierarchy and Rule Group Hierarchy

When Siebel Assignment Manager rules or rule groups are created through the user interface (see "Creating Assignment Rule Groups" on page 5-5 and "Creating Assignment Rules" on page 5-10), the hierarchy is automatically maintained (that is, the tables are updated). However, whenever new Assignment Manager rules or rule groups are imported using Siebel Enterprise Integration Manager (EIM), the hierarchy must be regenerated.

The following menu options support regenerating rule hierarchy and rule group hierarchy:

- Regenerate Denormalized Rule Group Hierarchy
- Regenerate Denormalized Rule Hierarchy

The Siebel administrator or Assignment Manager administrator can use these options after a Siebel EIM import of the Assignment Manager rules or rule groups.

Regenerating Rule Groups Hierarchy

After importing the Assignment Manager rule groups, regenerate the rule group hierarchy.

To regenerate the rule group hierarchy

1. Navigate to the Administration - Assignment screen, and then the Rule Groups List view.

2. In the Rule Groups list, click Menu and then select Regenerate Denormalized Rule Group Hierarchy.

Regenerating Rule Hierarchy

After importing the Assignment Manager rules, regenerate the rule hierarchy.

To regenerate the rule hierarchy

1. Navigate to the Administration - Assignment screen, and then the Assignment Rules List view.

2. In the Assignment Rules list, click Menu and then select Regenerate Denormalized Rule Hierarchy.

About Invoking Regeneration Functions by Scripting

It is possible to invoke the functions Regenerate Denormalized Rule Group Hierarchy and Regenerate Denormalized Rule Hierarchy by scripting, using the corresponding business component method:

- To regenerate rule groups hierarchy, invoke the method RegenerateDenormHierarchy on the Assignment Rule Group business component.

- To regenerate rule hierarchy, invoke the method RegenerateDenormHierarchy on the Assignment Group business component.

This method can then be used to automate the call of these functions. For example, after a Siebel EIM batch, a workflow process can be launched, calling a custom business service that invokes the corresponding methods.

Example of the Core Script in Siebel eScript

The following are examples of the core script in Siebel eScript:

- To regenerate rule groups hierarchy:

```
var busobj;
var buscomp;

// Regenerate Rule Groups
busobj=TheApplication().GetBusObject("Assignment");
buscomp=busobj.GetBusComp("Assignment Rule Group");
buscomp.InvokeMethod("RegenerateDenormHierarchy");
buscomp=null
busobj=null
```

- To regenerate the rule hierarchy:

```
var busobj;
var buscomp;

// Regenerate Rules
busobj=TheApplication().GetBusObject("Assignment");
buscomp=busobj.GetBusComp("Assignment Group");
buscomp.InvokeMethod("RegenerateDenormHierarchy");
buscomp=null
busobj=null
```

Setting Up Assignment Responsibility for Designees

This topic explains how to add designees to an assignment rule group using the delegated assignment administration views. Use the following procedure if you want to delegate assignment responsibility to someone else (a designee).

To add a designee to an assignment rule group

1. Navigate to the Administration - Delegated Assignment screen, and then the Rule Group Explorer view.

2. In the Rule Group Explorer, expand the rule group for which you want to assign designees, and then click Designees.

3. In the My Rule Group Explorer list, click New.

4. In the Pick Positions dialog box, query for the position that you want to add to the rule group, and then click OK.

For more information about designees, see "Process of Making an Assignment Rule Inheritable" on page 8-11.

Process of Making an Assignment Rule Inheritable

By associating positions to the inheritance access list for an assignment rule, you make that rule inheritable for use by child rule groups (accessible by the rule group's owners and designees). Assignment administrators (AAs and DAs) can make an assignment rule inheritable as long as they have access to the rule.

To make assignment rules inheritable, you perform the following tasks:

1. "Creating Child Assignment Rule Groups" on page 8-11

   You must first create a child rule group from a parent rule group, setting the Parent Rule Group field to the current rule group.

2. "Adding Owners to the Inheritance Access List" on page 8-12

   After creating the child rule group, you add the owner of the child rule group to the inheritance access list for the rule.

   > **Note:**   Unless the owner of a rule group is on the inheritance access list, that owner (and his or her designees) cannot inherit a rule.

3. (Optional) "Adding Criteria Templates to Assignment Rules" on page 8-12

   Optionally, you can *add* criteria templates to an assignment rule. DAs then have the option to *apply* the criteria templates to their inherited rules in lieu of creating new criteria.

Creating Child Assignment Rule Groups

This topic explains how to create a child assignment rule group using the delegated assignment administration views.

This task is a step in "Process of Making an Assignment Rule Inheritable" on page 8-11.

To create a child rule group

1. Navigate to the Administration - Delegated Assignment screen, and then the Rule Group Explorer view.

2. In the Rule Group Explorer, expand the rule group folder for which you want to define a child rule group, and then click Rule Groups.

3. In the My Rule Group Explorer list, click New.

4. In the new rule group record, click in the available fields to enter relevant information for the new group rule.

   a. In the Name field, type a name for the child rule group.

   b. In the Owner Position field, click the select button to query for an owner, and then click OK.

   > **Note:**   You must specify an appropriate position for the owner. A position cannot be owner (or designee) for a rule group below one for which that position is already an owner or designee.

For field descriptions, see "Creating Assignment Rule Groups" on page 5-5.

> **Tip:** Activation and expiration dates are modifiable only at the root-level rule group level in the hierarchy. All other rule groups under the root-level rule group share the same dates and are read only.

Adding Owners to the Inheritance Access List

This topic explains how to add owners to the inheritance access list for an assignment rule using the delegated assignment administration views. After owners are added to the inheritance access list of an assignment rule, inheritors of that rule can further refine and specialize that rule.

This task is a step in "Process of Making an Assignment Rule Inheritable" on page 8-11 and "Setting Up Assignment Responsibility for Designees" on page 8-10.

To add an owner to the inheritance access list

1. Navigate to the Administration - Delegated Assignment screen, and then the Rule Group Explorer view.

2. In the Rule Group Explorer, expand the rule group in which the assignment rule resides, and then click Rules.

3. In the My Rule Group Explorer list, drill down on the assignment rule that you want to make inheritable, and then click the Inheritance Access view tab.

4. In the Inheritance Access List, click Synchronize.

> **Note:** This action first deletes anyone from the list who is not an owner of a child rule group and then adds back only the owners of the child rule group. To prevent deletion, check the Lock During Synchronization checkbox next to a position before clicking Synchronize.

5. Delete any positions from the list that you do not want to inherit rules.

6. Alternatively, you can add a single position:

   a. In the Inheritance Access List, click New.

   b. In the Pick Positions dialog box, query for the position that you want to give access, and then click OK.

Adding Criteria Templates to Assignment Rules

This topic explains how assignment administrators (AAs) can add criteria templates to an assignment rule using the delegated administration views. After you create criteria templates, the criteria templates are available for use with inherited rules.

> **Note:** It is recommended that assignment administrators create criteria templates to assist DAs in rule creation. Doing this reduces the need for DAs to fully understand the steps required and implications of creating new logic.

This task is a step in "Process of Making an Assignment Rule Inheritable" on page 8-11.

To add criteria templates to an assignment rule

1. Navigate to the Administration - Delegated Assignment screen, and then the Rule Group Explorer view.

2. In the Rule Group Explorer, select the assignment rule for which you want to add criteria templates.

   > **Note:** Depending on the rule, you might have to navigate down the hierarchy.

3. In the My Rule Group Explorer list, drill down on the assignment rule, and then click the Criteria view tab (if not already active).

4. Add a new criterion.

   For information about creating new criteria, see "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

5. Check the Template checkbox for the new criterion.

   The new criterion template is now available for use with inherited rules.

   > **Note:** Assignment Manager does not process criteria templates until an inheritor chooses to apply a template to an assignment rule. When someone inherits from that rule, that person has the option to apply a template into an actual criterion (by checking the Create From Templates button in the Criteria view tab) instead of creating a new criterion.

Process of Inheriting and Refining Delegated Assignment Rules

To inherit and refine delegated assignment rules, you perform the following tasks:

1. Inherit an assignment rule.

   For a procedure, see "Inheriting Delegated Assignment Rules" on page 8-13.

2. Add criteria to the inherited assignment rule by either creating new criteria or applying criteria templates.

   For information about:

   - Creating new criteria, see "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15

   - Applying criteria templates, see "Applying Criteria Templates to Inherited Assignment Rules" on page 8-14

3. Add candidates to the assignment rule.

   For information about adding candidates, see "Choosing a Candidate as the Primary Assignee" on page 5-19.

Inheriting Delegated Assignment Rules

This topic explains how to inherit an assignment rule using the delegated assignment administration views.

This task is a step in "Process of Inheriting and Refining Delegated Assignment Rules" on page 8-13.

To inherit a delegated assignment rule

1. Navigate to the Administration - Delegated Assignment screen, and then the Rule Group Explorer view.

2. In the Rule Group Explorer, expand the rule group for which you want to inherit rules, and then click Inheritable Rules.

3. Select one or more rules that you want to inherit, and then click Inherit Rules.

   The rule (or rules) now appear as rules in the Rule Group Explorer view under Rules.

Applying Criteria Templates to Inherited Assignment Rules

This topic explains how to apply predefined criteria templates to inherited assignment rules using the delegated assignment administration views.

This task is a step in "Process of Inheriting and Refining Delegated Assignment Rules" on page 8-13 and an optional step in "Process of Making an Assignment Rule Inheritable" on page 8-11.

To apply criteria templates to an assignment rule

1. Navigate to the Administration - Delegated Assignment screen, and then the Rule Group Explorer view.

2. In the Rule Group Explorer, expand the rule group in which the assignment rule resides and you want to apply criteria templates, and then click Rules.

   > **Note:** Depending on the rule, you might have to navigate down the hierarchy.

3. In the My Rule Group Explorer list, drill down on the assignment rule for which you want to apply criteria templates, and then click Create From Templates.

4. In the Pick Criteria Templates dialog box, select the rule criterion that you want, and click OK.

   A new criterion is added to the rule.

Examples for Using Delegated Assignment

This topic provides examples of how delegated assignment might be used. You might use delegated assignment differently, depending on your business model. Your company might follow a different process according to its business requirements.

This topic contains the following information:

- "Scenario for Working with Delegated Administrators" on page 8-15

- "Delegated Assignment Example 1: Delegated Administration Tasks" on page 8-16

- "Delegated Assignment Example 2: Second-Tier Delegated Administration Tasks" on page 8-18

- "Delegated Assignment Example 3: Third-Tier Delegated Administration Tasks" on page 8-19

- "Delegated Assignment Example 4: Third-Tier Delegated Administration Tasks for Partners" on page 8-19

- "Summary for Examples of Delegated Assignment Administration" on page 8-20

Scenario for Working with Delegated Administrators

This topic is part of "Examples for Using Delegated Assignment" on page 8-14.

A sales organization for a high tech company wants to create assignment rules that are inheritable and configurable by several different levels in the organization. The requirements are:

- Handle large sales leads internally; handle small sales leads externally using partners

- Promptly assign sales leads to the most qualified representative

- Design complex assignment rules, making use of the delegated assignment inheritance and criteria templates features to allow for uncomplicated rule administration by persons at all levels

In this scenario, the Sales EVP, vice presidents, regional sales managers, partners, and sales representatives participate in delegated assignment for one rule group hierarchy, as shown in Figure 8–4.

Figure 8–4 shows the following relationships:

- Amy, Executive Vice President of Sales, is the assignment administrator (AA).

- Two vice presidents report to Amy:
    - Lance, VP Direct Sales
    - Henry, VP Channel Sales

    Lance and Henry are second-tier delegated administrators.

- Two managers report to Lance:
    - Rick, Eastern Regional Manager
    - Sarah, Western Regional Manager

    Rick and Sarah are third-tier delegated administrators (DAs).

- Two partners report to Henry:
    - Robin, Partner 1
    - Sam, Partner 2

    Robin and Sam are also third-tier delegated administrators (DAs).

- Three Western regional sales representatives report to Sarah.

- Three partner sales representatives report to Robin.

Figure 8–4   Sample Delegated Assignment Organization Chart
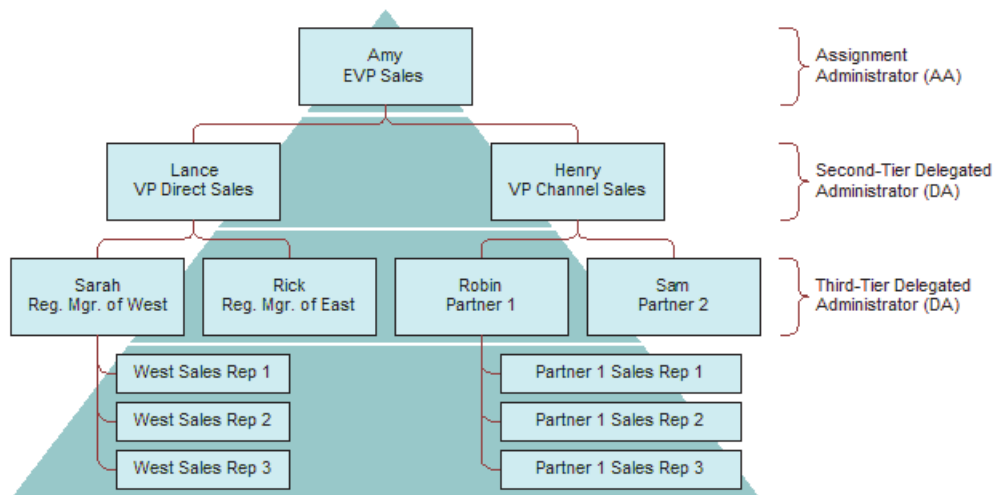
Table 8–2 provides sample responsibilities for each of the positions discussed previously.

Table 8–2   Sample Positions and Responsibilities for Delegated Assignment Scenario

Position	Responsible for …
Executive Vice President (EVP) of Sales	Making sure that large leads are handled by internal sales representatives and small leads are handled by partner sales representatives.
VP Direct Sales	Making sure that leads are routed to the right regional manager. (Second-tier delegated administrator)
VP Channel Sales	Making sure that leads are routed to the right partner. (Second-tier delegated administrator)
Regional Manager	Making sure that leads are routed to the best sales representative. (Third-tier delegated administrator)
Partner	Making sure that leads are routed to best partner employee (because the high tech company cannot determine which partner employee is best suited for the lead). (Fourth-tier delegated administrator)

Delegated Assignment Example 1: Delegated Administration Tasks

This topic is part of "Examples for Using Delegated Assignment" on page 8-14.

Amy, the EVP and assignment administrator (AA), makes sure that large leads go to internal sales reps (by way of Lance, VP Direct Sales) and small leads go to channel partners (by way of Henry, VP Channel Sales).

To perform top-level delegated assignment administration tasks

1. Create a root-level rule group.

    In this example, Amy organizes her assignment rules into a logical grouping. Rules that route leads are in one rule group.

    For information about how to create a root-level rule group, see "Creating Assignment Rule Groups" on page 5-5.

2. Create a child rule group (or groups) with the root-level rule group as the parent.

In this example, Amy creates two rules groups, as follows:

– Rule Group 1 with Owner = Lance

– Rule Group 2 with Owner = Henry

Creating these rule groups gives Henry and Lance the ability to manage their own lead assignment rules for their subordinates.

For information about how to create a child rule group, see "Creating Child Assignment Rule Groups" on page 8-11.

3. Create an assignment rule (or rules).

a. Add a new assignment rule.

b. Assign candidates to the rule.

For information about adding candidates to assignment rules, see "Choosing a Candidate as the Primary Assignee" on page 5-19.

c. Add criteria templates to the rule.

Note: It is recommended that assignment administrators create criteria templates to assist DAs in rule creation. Doing this reduces the need for DAs to fully understand the steps required and implications of creating new logic.

For information about adding criteria templates to assignment rules, see "Adding Criteria Templates to Assignment Rules" on page 8-12.

d. Add owners of the child rule groups to the inheritance access list for the assignment rule.

After owners are added to the inheritance access list, inheritors of those rules can refine and specialize the rules by adding criteria and candidates for their unique circumstances.

For information about adding owners to the inheritance access list for an assignment rule, see "Adding Owners to the Inheritance Access List" on page 8-12.

In this example, create the following assignment rules to route leads to Lance and Henry.

Task	Assignment Rule 1	Assignment Rule 2
Add criteria	Leads greater than $100,000	Leads less than $100,000
Assign candidates	Lance (VP Direct Sales)	Henry (VP Channel Sales)
Add owners to inheritance access list	Lance	Henry

These configured values help make sure that large leads are managed by internal sales and smaller leads are managed by partners.

4. (Optional) Create additional criteria templates.

a. Create new criteria for the assignment rule.

b. Click the Template flag for each new criteria created.

In this example, use the following criteria.

Add to Rule	Assignment Rule 1	Assignment Rule 2
Criteria Template 1	Product Line = Servers	Not applicable
Criteria Template 2	Product Line = PCs	Not applicable
Criteria Template 3	Product = Notebooks	State = NY, CT, NJ
Criteria Template 4	Product = Desktops	State = WA, CA, OR, NV
Criteria Template 5	Product = Peripherals	Not applicable

These configured values provide Lance and Henry with the ability to refine rules with predefined criteria instead of creating new criteria.

Delegated Assignment Example 2: Second-Tier Delegated Administration Tasks

This topic is part of "Examples for Using Delegated Assignment" on page 8-14.

Lance, VP of Direct Sales and a second-tier delegated administrator (DA), makes sure that the leads that are more than $100K are routed to the correct sales manager based on geography and territories:

- Leads in the Eastern states go to Rick

- Leads in the Western states go to Sarah

Henry, VP of Channel Sales and another second-tier DA, follows the same steps as Lance, except Henry uses different criteria templates to route leads based on product line, as follows:

- Leads for PCs go to Robin (employee of Partner 1)

- Leads for servers go to Sam (employee of Partner 2)

To perform second-tier delegated assignment administration tasks

1. In the Rule Group Explorer, select a rule group previously created by the assignment administrator.

   In this example, Lance selects the rule group for which he is the owner (Rule Group 1).

2. Create a child rule group (or groups) with the current rule group as the parent.

   In this example, Lance creates two rules groups, as follows:

   – Rule Group 10 with Owner = Rick; Parent Rule Group = Rule Group 1

   – Rule Group 20 with Owner = Sarah; Parent Rule Group = Rule Group 1

   Creating these rule groups gives Rick and Sarah the ability to manage their own lead assignment rules for their subordinates.

   For information about how to create a child rule group, see "Creating Child Assignment Rule Groups" on page 8-11.

3. Inherit assignment rule (or rules).

   In this example, Lance inherits Amy's rule twice so that he can refine each rule to make sure that leads in the Eastern states go to Rick and leads in the Western states go to Sarah.

For information about inheriting an assignment rule, see "Inheriting Delegated Assignment Rules" on page 8-13.

4. Refine the inherited assignment rule (or rules).

 a. Apply criteria templates.

 See "Applying Criteria Templates to Inherited Assignment Rules" on page 8-14.

 b. Add candidates.

 See "Choosing a Candidate as the Primary Assignee" on page 5-19.

In this example, use the following information to refine the assignment rules. The first criterion was inherited from the original rule and is read only. The second criterion was applied from criteria templates.

Rule Data	Assignment Rule 10	Assignment Rule 20
Criteria	Leads greater than $100,000	Leads greater than $100,000
Criteria	State = NY, CT, NJ	State = WA, CA, OR, NV
Candidate	Rick	Sarah

5. Add owners of the child rule groups to the inheritance access list for each assignment rule.

 See "Adding Owners to the Inheritance Access List" on page 8-12.

 After you add Rick and Sarah to the inheritance access list for the appropriate assignment rule, Rick and Sarah can inherit the rules and further refine them by adding criteria and specifying candidates.

Delegated Assignment Example 3: Third-Tier Delegated Administration Tasks

This topic is part of "Examples for Using Delegated Assignment" on page 8-14.

Rick and Sarah are third-tier delegated administrators in the rule group hierarchy.

To perform third-tier delegated assignment administration tasks

■ Rick and Sarah follow the same steps as Lance in "Delegated Assignment Example 2: Second-Tier Delegated Administration Tasks" on page 8-18, except that Rick and Sarah:

 – Inherit Lance's rules (Assignment Rule 10 and 20), and refine those rules so that the leads are routed directly to sales representatives.

 – Do not have to create child rule groups (because they assign leads directly to representatives).

Delegated Assignment Example 4: Third-Tier Delegated Administration Tasks for Partners

This topic is part of "Examples for Using Delegated Assignment" on page 8-14.

Robin and Sam are third-tier partner delegated administrators. Robin must make sure that leads that have been assigned to Partner 1 are routed to the best sales representative and that no leads go unassigned.

To perform third-tier delegated assignment administration tasks for partners

1. In the Rule Group Explorer, select the rule group previously created by the second-tier delegated administrator (Henry, in this example).

   In this example, assuming Henry created Assignment Rule 30 for Robin and Assignment Rule 40 for Sam, Robin selects Rule Group 30.

2. Inherit the assignment rule (or rules).

   In this example, Robin inherits Henry's rule three times and refines each rule to make sure that leads are routed to one of Partner 1's three sales representatives.

   For information about inheriting an assignment rule, see "Inheriting Delegated Assignment Rules" on page 8-13.

3. Refine the inherited rule (or rules).

   a. Apply criteria templates.

      See "Applying Criteria Templates to Inherited Assignment Rules" on page 8-14.

   b. Add candidates.

      See "Choosing a Candidate as the Primary Assignee" on page 5-19.

4. Add owners to the inheritance access list for the assignment rule.

See "Adding Owners to the Inheritance Access List" on page 8-12.

In this example, use the following information. In this example, rule 30B inherits from rule 30A, and rule 30C inherits from either rule 30B or rule 30A. Therefore, the values for the first and second criteria are read-only for rules 30B and 30C. For the third criteria, Product = Desktops, new values from criteria templates were applied to rule 30B and rule 30C.

Apply to Rule	Assignment Rule 30A	Assignment Rule 30B	Assignment Rule 30C
Criteria	Leads greater than $100,000	Leads greater than $100,000	Leads greater than $100,000
Criteria	Product Line = PCs	Product Line = PCs	Product Line = PCs
Criteria	Product = Desktops	Product = Notebooks	Product = Peripherals
Candidate	Partner 1 Sales Rep 1	Partner 1 Sales Rep 2	Partner 1 Sales Rep 3

Summary for Examples of Delegated Assignment Administration

This topic is part of "Examples for Using Delegated Assignment" on page 8-14.

The following bullet points further summarize the delegated assignment activities as they pertain to the examples provided:

- The examples describe a four-level assignment model. However, this is no limit to the number of levels that the delegated assignment feature supports, and there is no limit to the number of branches in a level. In these examples, the levels are:

  Level 1 = Amy

  Level 2 = Lance, Henry

  Level 3 = Rick, Sarah; Robin, Sam

  Level 4 = Eastern and Western Sales Reps; Partner 1 and Partner 2 Sales Reps

- Rule group hierarchies are executed from the bottom up. For example, Assignment Manager attempts to use Robin's rules to match a particular lead to a candidate before it tries to use Henry's rules. However, if Robin's rules fail, then Assignment Manager then tries Henry's rules, and assigns the lead to Robin, and so on up the hierarchy.

- Each rule group owner can assign a designee.

  Designees have the same responsibilities as an owner. You might want to delegate your ownership to someone else, such as an administrative assistant, to perform the tasks.

- Each partner might assign one person as the delegated administrator (in these examples, either Robin or Sam) and that person would manage the partner's rule group. This same person should receive all leads that are not assigned to the partner's sales representatives.

- AAs and DAs can create new criteria (you are not required to use criteria templates). However, it is recommended that the AA create criteria templates for the most common criteria to ease the learning curve for the DAs.

9

Running Siebel Assignment Manager

This chapter provides preparatory considerations and tasks before running Siebel Assignment Manager and explains how to run Assignment Manager in several operating modes. It includes the following topics:

Preparing to Run Siebel Assignment Manager

Siebel Assignment Manager obtains information required for operation from the following sources:

- The assignment rules and criteria, as well as employees, positions, and organizations, that are read from the rule cache file.

- The properties of assignment objects and their property values, the list of values for the picklists, and assignment criteria, attributes, workflow policy components, workflow policy component columns, and other repository information from the database.

- Input parameters for the server component.

> **Note:** Assignment Manager uses many Siebel Server resources. It is recommended that you monitor the Siebel Servers whenever Assignment Manager is invoked, especially if you run multiple instances at the same time. For more information about running multiple instances of Assignment Manager, see "About Running Multiple Instances of Siebel Assignment Manager in Batch Mode" on page 9-31.

Before running Assignment Manager, you must perform several preparatory tasks. These tasks include:

1. Assigning rules. See "Process of Defining Assignment Rules" on page 5-3

2. "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34

3. "Checking the State of Siebel Assignment Manager and Server Request Broker Components" on page 9-2

4. "Modifying the Siebel Assignment Manager Component Parameters" on page 9-3

5. "Setting the Log Level of Siebel Assignment Manager Events" on page 9-11

In addition to the preparatory tasks, some server administration requirements must be considered before running Assignment Manager. For a discussion of these requirements, see the following topics:

- "About Server Administration Requirements After Configuration" on page 9-13

- "About Server Administration Requirements for Assignment Modes" on page 9-13

Checking the State of Siebel Assignment Manager and Server Request Broker Components

This topic is part of "Preparing to Run Siebel Assignment Manager" on page 9-1.

Before running Siebel Assignment Manager components, you must first make sure that the Siebel Server can start one or more multithreaded components by checking the Assignment Manager and Server Request Broker server components.

To check the state of the Assignment Manager and Server Request Broker components

1. Navigate to the Administration - Server Management screen, and then the Servers view.

2. In the Component Groups list, query for the Assignment Manager and Server Request Broker components, and check the Server field to verify that these components are running on the appropriate Siebel Server.

   > **Tip:** The Server field might be a hidden column in this list. You can use the Columns Displayed feature to make fields visible. For more information, see *Siebel Fundamentals for Siebel Open UI*.

3. In the State field in the Component Groups list, verify the state of each of the following components:

   – Assignment Manager component is Online.

   – Server Request Broker component is Running.

> **Note:** If these components are not in their required state, then check the log file for errors, and then make the necessary corrections.

Modifying the Siebel Assignment Manager Component Parameters

This topic is part of "Preparing to Run Siebel Assignment Manager" on page 9-1.

Before running Siebel Assignment Manager components, configure the Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) components to enhance their performance for your implementation by modifying the appropriate parameters.

For more information about configuring parameters for server components, see *Siebel System Administration Guide*.

Table 9–1 lists the component parameters used by Assignment Manager that you can change.

To modify Assignment Manager component parameters

1. Navigate to the Administration - Server Configuration screen, and then Servers.

2. In the Servers list, select your server (if more than one server appears) and make sure that the Assignment Management component group is enabled on that server.

3. In the Components list for the current server, select one of the following:

    ■   Assignment Manager (AsgnSrvr)

    ■   Batch Assignment (AsgnBatch)

4. Click the Parameters tab (if it is not already active).

5. In the Parameters list, select the parameters of interest, and adjust the values as required by your implementation to achieve optimal performance.

6. Make sure that the MinMTServers parameter is set to a current value greater than 0. If necessary, then change the value of MinMTServers. If you change the value for MinMTServers or any other parameters that require server restart, then also restart the Siebel Server.

    > **Note:** Updated values for most of the parameters listed in Table 9–1 take effect when assignment rules are released and the rulecache.dat file is updated, or when the component is restarted. (Updated values also take effect if the Siebel Server is restarted.)

If you restarted the Siebel Server, then the specified number of Assignment Manager components will be started, using the value of MinMTServers. For more information about MinMTServers, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9. For more information about starting and restarting the Siebel Server, see *Siebel System Administration Guide*.

Table 9–1 lists the component parameters used by Assignment Manager that you can change. Because many of the parameters function in the same manner for both server components, the parameters for each component are combined into one table.

> **Note:** Some parameters in the table are identified as advanced. In the GUI, click the Advanced button in the Component Parameters list to display these parameters for the applicable component.

Table 9–1   Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) Parameters

Parameter Name	Parameter Alias	Asgn Srvr	Batch Asgn	Description
Active Employee Where Clause	ActiveEmpLOVCode	Yes	Yes	Used to exclude inactive employees from assignment by specifying an SQL WHERE clause.
				Note: You must set the same values for the ActiveEmpLOVCode and ActivePosWhereClause parameters consistently among AsgnSrvr, AsgnBatch, and the workflow policy program (if used). Otherwise, you might encounter unexpected results.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Active Position Where Clause	ActivePosWhereClause	Yes	Yes	Used to exclude inactive positions from assignment by specifying an SQL WHERE clause.
				Note: You must set the same values for the ActiveEmpLOVCode and ActivePosWhereClause parameters consistently among AsgnSrvr, AsgnBatch, and the workflow policy program (if used). Otherwise, you might encounter unexpected results.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Actual Assignment Key	ActualAsgnKey	Yes	Yes	The key value used when Assignment Manager is running in delta reporting mode to identify candidates by this key value in the actual result table.
				For more information about delta reporting mode, see "About Running Assignment Manager in Reporting Mode" on page 9-34.
Add Scores across Rules	AddScores	Yes	Yes	If TRUE, then scores for the same candidate are added across rules.
				The default value is FALSE.
				See "Configuring Siebel Assignment Manager to Add Scores Across Rules" on page 10-30.
Allow Duplicate Positions	AllowDupPostn	Yes	Yes	Allows assignment of duplicate positions to the team.
				This is an advanced parameter.
				The default value is FALSE.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Assignment History Cache Size	CacheSize	Yes	No	Indicates the assignment history cache size, in kilobytes.
				This is an advanced parameter.
				The default value is 300.
Assignment Key	AsgnKey	Yes	Yes	Indicates the rule set used for key-based routing, that is, the row ID of the assignment rule group that is associated with the rules that you want to evaluate. The default value of the parameter is All AM Rule Set, in which case all active rules are evaluated.

Table 9–1   (Cont.)   Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) Parameters

Parameter Name	Parameter Alias	Asgn Srvr	Batch Asgn	Description
Assignment Mode	AsgnMode	Yes	Yes	Indicates the assignment mode (Match, Assign, MatchAssign, Denorm, or Cancel).
				The default value is MatchAssign.
				For more information about AsgnMode, see "About Using External Components to Invoke Siebel Assignment Manager" on page 9-37.
Assignment Object Name	AsgnObjName	Yes	Yes	Indicates the name of the assignment object.
Batch Size	BatchSize	Yes	Yes	Indicates the number of objects to be assigned before committing the transaction.
				The default value is 100.
Check If CandidateActive	CheckIfCandidateActive	Yes	Yes	Determines whether Assignment Manager checks a candidate's activation and expiration date during evaluation of every rule.
				The default value is FALSE.
Check version iterations	CheckVerIter	Yes	No	Defines the frequency of time Assignment Manager checks whether the rule version has changed. This value also represents the time lag before the new rules take effect, after the Release button has been clicked.
				Assignment Manager checks the version from the database every N iterations. One integer value equals ten seconds (minimum value is 1).
				This is an advanced parameter.
				The default value is 6.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Copy Candidate Specific Data	CopyCandSpecData	Yes	Yes	Indicates whether Assignment Manager copies attribute values from dynamic candidate to the result table.
				The default value is No.
Copy Person Specific Data	CopyPersonSpecData	Yes	Yes	Indicates whether Assignment Manager copies attribute values from dynamic candidates to the result table.
				The default value is No.
Default Tasks	DfltTasks	Yes	Yes	Indicates the default number of service tasks to start (server-mode only).
				This is an advanced parameter.
				Note: You must restart the component or server for a new value to take effect.
				The default value is 0.
Dynamic Candidate Parameters	DynCandParam	Yes	Yes	Semicolon-separated parameter, whose value pairs are used to substitute the variables in the Dynamic Candidate definitions in Siebel Tools.
				Format =
				Name of Param1:Value for param1; Name of Param2:Value for param2; and so on.

Table 9–1   (Cont.)   Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) Parameters

Parameter Name	Parameter Alias	Asgn Srvr	Batch Asgn	Description
Ignore Calendar Criteria	IgnoreCalCrit	Yes	Yes	Allows a match to be made without taking into account calendar availability. The default value is FALSE.
Ignore assignment rule cache	IgnoreCache	Yes	Yes	Indicates whether Assignment Manager ignores the assignment rule cache and reads from the database. This is an advanced parameter. The default value is FALSE.
Independent Rule Group Cache	IndepRuleGroupCache	No	Yes	If TRUE, then the Batch Assignment component maintains a separate cache file for this rule group for this request. The default value is TRUE.
Key Based Enabled	KeyBasedEnabled	Yes	No	Enables key-based routing for a component that has been predefined for that attribute. This is an advanced parameter. The default value is TRUE. **Note:** If the value is set to FALSE, then the Server Request Broker is not able to route requests to the Assignment Manager, and interactive assignment will not work. (Interactive assignment relies on the Assignment Manager component).
List of excluded organization ids	ExcludeOrgList	Yes	Yes	Indicates a comma-separated list of organization IDs to be excluded from assignment. For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
List of excluded person ids	ExcludePersonList	Yes	Yes	Indicates a comma-separated list of employee or position IDs to be excluded from assignment. For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Log txn only on change	LogTxnChgOnly	Yes	Yes	Logs a transaction only when the assignment has changed (for example, when the sales team is updated). By default, this parameter is set to TRUE. Setting this parameter to FALSE causes Assignment Manager to log a transaction in the S_DOCK_TXN_LOG table on reassignment even when there is no change in rules or assignees. This is an advanced parameter. **Note:** If there is a change in at least one of the primaries, or if there is a change in at least one of the team tables, then Assignment Manager updates columns (primaries, ASGN_DT, and system columns) on the object row. However, if there is no net change, only the ASGN_DT column is updated. For information about how this parameter works with regard to merge conflicts, see *Siebel Remote and Replication Manager Administration Guide*.

Table 9–1 (Cont.) Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) Parameters

Parameter Name	Parameter Alias	Asgn Srvr	Batch Asgn	Description
Maximum MT Servers	MaxMTServers	Yes	No	Indicates the maximum number of active server processes for a multithreaded service.
				The default value is 1.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Maximum Routing Keys	MaxRouteKeys	Yes	No	Indicates the number of keys allocated for the routing. Used for interactive assignment.
				This is an advanced parameter.
Maximum Tasks	MaxTasks	Yes	Yes	Indicates the maximum number of running tasks for a service.
				The default value is 20.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Minimum MT Servers	MinMTServers	Yes	No	Indicates the minimum number of active server processes for a multithreaded service.
				The default value is 1.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Object Row Id	ObjRowId	Yes	No	Indicates the row ID of the object to assign.
Object Row Sql Statement	ObjRowSqlStmt	Yes	Yes	Represents the SQL statement that when executed gives the object row IDs to be assigned.
				Note: You can use this parameter to specify the rows to be assigned in lieu of the ObjRowId or ObjWhereClause parameters.
Object Where Clause	ObjWhereClause	Yes	Yes	A WHERE clause of the object for use with interactive and batch assignment.
				For more information, see "About Using an Object WHERE Clause to Restrict the Number of Records Processed" on page 9-38.
Organization Key Value	OrgKeyVal	Yes	Yes	Used to stamp rows when assigning organizations and UseKeyVal = Key Value.
Person Key Value	PersonKeyVal	Yes	Yes	Used to stamp rows when assigning employees or positions and UseKeyVal = Key Value.
Primary Organization Id	PrOrganizationId	Yes	No	Indicates the ID of the organization to be assigned as the primary.
				This is an advanced parameter.
Primary Person Id	PrPersonId	Yes	No	Indicates the ID of the person to be assigned as the primary.
				This is an advanced parameter.
Primary Rule Id	PrRuleId	Yes	No	Indicates the ID of the rule to be assigned as the primary.

Table 9–1   (Cont.)   Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) Parameters

Parameter Name	Parameter Alias	Asgn Srvr	Batch Asgn	Description
Refresh people skills interval	MaxSkillsAge	Yes	No	Indicates the interval in which people skills are refreshed, in seconds. Setting the value to 0 (zero) disables refresh.
				This is an advanced parameter.
				The default value is 0.
				For more information about this parameter, see "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
Regular Assignment	RegularAsgn	Yes	No	Indicates whether Assignment Manager performs regular assignment.
				Note: Assignment Manager can also run in reporting mode.
				The default value is TRUE.
Replace Key Values	ReplaceKeyVal	Yes	Yes	Indicates whether Assignment Manager looks for candidates in the team table that have a value stamped in the Key column.
				These candidates are then compared to those that qualify for the rule and are removed, updated, or inserted.
				This parameter is a comma-separated string and is dependent on what is passed in the UseKeyVal parameter.
Replace Team Members	ReplaceTeamMembers	Yes	Yes	Allows deletion of team members if they no longer qualify.
				This is an advanced parameter.
Reporting Mode	RptMode	Yes	Yes	Indicates what reporting mode Assignment Manager will run. Values are: None, Snapshot, and Delta.
				The default value is None.
Request Id	ReqId	Yes	Yes	Assignment Manager generates a request ID for each server component job. When AsgnMode = Match, passing candidates are stored in a temporary table with the request ID. Then, Assignment Manager uses this request ID to find (match) the correct entries in the table.
				This is an advanced parameter.
Return Property Set	ReturnPropSet	Yes	No	If TRUE, then Assignment Manager returns a hierarchical property set containing qualified or assigned candidates.
				See "About Using External Components to Invoke Siebel Assignment Manager" on page 9-37.

Table 9–1 (Cont.) Assignment Manager (AsgnSrvr) and Batch Assignment (AsgnBatch) Parameters

Parameter Name	Parameter Alias	Asgn Srvr	Batch Asgn	Description
Use FOR UPDATE	UseForUpdate	Yes	Yes	If TRUE, then Assignment Manager uses the FOR UPDATE SQL clause to lock primary table rows so that, during evaluation and assignment, no other process or user can make changes to this row. This is an advanced parameter.
Use Key Value	UseKeyVal	Yes	Yes	Indicates whether Assignment Manager uses a key value to filter and stamp the candidate. Values are: None, Rule Group, and Key Value. The default value is None.
Use Rule Minimum Score	UseRuleMinScore	Yes	Yes	If TRUE, then Assignment Manager filters out candidates that do not get at least the minimum score on the assignment rule. The default value is FALSE.

Additional Information About Assignment Manager and Batch Assignment Component Parameters

This topic is part of "Preparing to Run Siebel Assignment Manager" on page 9-1.

The information in this topic provides further explanation for some of the parameters used with the Assignment Manager (AsgnMgr) and Batch Assignment (AsgnBatch) components, and why you might want to use them. The name provided in parentheses is the alias for the parameter.

For more information about setting these parameters and for a more complete list of parameters, see "Modifying the Siebel Assignment Manager Component Parameters" on page 9-3.

For more information about configuring parameters for server components, see *Siebel System Administration Guide*.

Active Employee Where Clause (ActiveEmpLOVCode) and Active Position Where Clause (ActivePosWhereClause) Parameters

You can choose to include only active employees for assignment rule evaluation. For example, you might want to effectively exclude inactive employees or employees who are on a leave of absence from assignment consideration.

You include active employees by using the Active Employee Where Clause component-level parameter (or using ActiveEmpLOVCode from the Server Manager command line) with an SQL WHERE clause that is based on any column (or columns) on the S_EMP_PER employee table. For example, you could use the EMP_STAT_CD column with the following value to indicate that you want only active employees considered for evaluation and assignment:

```
AND emp.EMP_STAT_CD='Active'
```

Other employees are excluded, even if they are explicitly added to an assignment rule as candidates.

Similarly, you can include only active *positions* by using the Active Position Where Clause component-level parameter (or using ActivePosWhereClause from the Server Manager command line).

> **Note:** Updated values for these parameters take effect when assignment rules are released and the rulecache.dat file is updated, or when the component is restarted. (Updated values also take effect if the Siebel Server is restarted.)

> **Caution:** When specifying the parameters, you must use the *emp* SQL alias for the S_EMP_PER employee table and the *pos* alias for the S_POSTN position table. Do this to differentiate from other columns by the same name in other tables that Assignment Manager might use in the same SQL. Otherwise, an SQL error (ambiguous reference to a column) might occur.

Allow Duplicate Positions (AllowDupPostn) Parameter

You can assign duplicate positions by setting the Allow Duplicate Positions parameter when you run an assignment request. By default, the Allow Duplicate Positions parameter is set to FALSE. When you set this parameter to TRUE, Assignment Manager attempts to insert duplicate positions, that is, positions with the same ID in the team table, given those positions do not violate the user key constraints of the table.

You must also set the PositionTeamDenorm user property for the assignment object. The PositionTeamDenorm assignment object user property specifies which destination columns are part of the user key. Assignment Manager checks whether positions with the same ID that pass violate the uniqueness of these key columns. If Assignment Manager detects a violation, only the first position encountered is inserted into the team table, and the other position is ignored. Otherwise, Assignment Manager inserts both positions into the team table.

For example, if there is a violation of the user key when adding positions to the account team, then only the first duplicate position encountered is inserted into the S_ACCNT_POSTN table. For an example of using the PositionTeamDenorm assignment object user property, see "Example of Copying Additional Columns to the Team Table" on page 10-13.

Check version iterations (CheckVerIter) Parameter

Changing this parameter to a small value, such as 1, reduces the potential for invalid assignment. For example, running interactive assignment before Assignment Manager detects that the Release button was recently clicked causes assignment based on the previous version of assignment rules. By having a small iteration value, Assignment Manager checks for a newer version of assignment rules more frequently. Test your deployment with this lower parameter value to make sure that it does not interfere with any other database activity.

List of excluded person ids (ExcludePersonList) and List of excluded organization ids (ExcludeOrgList) Parameters

You can choose to exclude a specific candidate or candidates, even though you added the candidate or candidates to an assignment rule. You do so at run time by specifying the ExcludePersonList or the ExcludeOrgList parameter as comma-separated lists of candidate IDs from the Server Manager command line. Assignment Manager does not evaluate these candidates, and because of this, the candidates do not appear in log files even when Match or Assign logging is active.

For example, if an employee has not worked on a service request for several days, and if a request is submitted to assign the same service request, then Assignment Manager assigns the service request to the same person again. That is because, given a set of assignment rules and criteria, Assignment Manager assigns the candidate with the highest score to the object row. By specifying the ExcludePersonList parameter for a particular run, you can exclude this particular candidate from assignment consideration.

Maximum MT Servers (MaxMTServers) Parameter

This parameter controls the maximum number of Assignment Manager server processes that are running at any time on the Siebel Server (when MaxMTServers is greater than MinMTServers). Generally, the default value is sufficient for most deployments, because server processes for Assignment Manager have large resource requirements.

Maximum Tasks (MaxTasks) Parameter

This parameter controls the maximum number of server threads that can run at any time on the Siebel Server. For Assignment Manager, this controls the maximum number of assignments that can be processed concurrently. Set the value of this parameter to the maximum anticipated concurrent requests (dependent on your server's capabilities).

Minimum MT Servers (MinMTServers) Parameter

This parameter controls the number of Assignment Manager server processes that are started when the Siebel Server starts up. If this value is set to zero, then Assignment Manager is disabled. It is recommended that you use the default value of 1, because server processes for Assignment Manager have large resource requirements.

Refresh people skills interval (MaxSkillsAge) Parameter

This parameter controls the interval in which people skills are refreshed, in seconds. If you want to automatically refresh skills without restarting the Assignment Manager component, then set the value of the MaxSkillsAge parameter to the desired update interval (the value must be greater than zero seconds). Then, when rules are released, Assignment Manager refreshes skills and re-creates the rulecache.dat file at the periodic interval set.

This is an advanced parameter.

Note: The MaxSkillsAge parameter, by itself, does not update or re-create the rulecache.dat file. It is only when the rules are released that Assignment Manager refreshes the skills, and re-creates the rulecache.dat file according to the periodic interval set.

Setting the Log Level of Siebel Assignment Manager Events

This topic is part of

Before running Siebel Assignment Manager components, you can set event logs to view results. The Assignment Manager, Batch Assignment, and Workflow Monitor Agent server components are configured to use events.

In addition to the events used for other components, the Assignment Manager, Batch Assignment, and Workflow Monitor Agent components use specific events to log information related to assignments:

- **Assignment Manager Generic (Generic).** Generic events specific to Assignment Manager.

- **Loading (Loading).** Logging of events that happen during loading.

- **Object Assignment (Assign).** Logging of events during the assignment phase.

- **Rules Evaluation (Match).** Logging of events during the evaluation phase.

- **SQL Parse and Execute.** Traces all executed SQL and enhances debugging.

There are five levels in each of the events:

- Level 0: Used for fatal errors

- Level 1: Used for nonfatal errors and warnings

- Levels 2 through 4: Used for different levels of logging detail

- Level 5: Used for detailed debug information

Assignment Manager uses two events for logging information when assigning object rows. For the evaluation phase, Assignment Manager uses the Rules Evaluation (Match) event. The following levels of information are logged for each level:

- Level 2: Object row-level logging

- Level 3: Rule-level logging

- Level 4: Criterion-level logging

- Level 5: Criterion value-level logging

For the assignment phase, Assignment Manager uses the Object Assignment (Assign) event. The following levels of information are logged for each level:

- Level 2: Object row-level logging

- Level 3: Passing rules-level logging

- Level 4: Passing candidates-level logging

> **Note:** You can set the log level of both event types to print a list with combined results. However, when you are assigning too many objects, these settings might create extremely large log files.

To set the log level of Assignment Manager events

1. Navigate to the Administration - Server Configuration screen, and then Servers.

2. In the Servers list, select your server (if more than one server appears) and make sure the Assignment Management component group is enabled on that server.

3. In the Components list for the current server, select the Assignment Manager, Batch Assignment, or Workflow Monitor Agent component, depending on the component for which you want to set a log level. Make sure that the selected component is running on the correct server.

4. in the Events list, adjust the values for the Log Level field, as required by your implementation, as follows:

    a. Select Rules Evaluation; enter 3 if you want to print a list of assignment rules that were evaluated.

    b. Select Object Assignment; enter 3 if you want to print a list of evaluated assignment rules that passed.

For more information about event logs, see *Siebel System Monitoring and Diagnostics Guide*.

About Server Administration Requirements After Configuration

This topic is part of "Preparing to Run Siebel Assignment Manager" on page 9-1.

After configuring Siebel Assignment Manager objects and attributes or altering assignment policies, it is often necessary to stop and restart various server tasks and components. Table 9–2 summarizes the required server tasks and components that must be restarted based on the type of configuration process. Detailed information about how and when to run these server tasks and components is provided in the remainder of this chapter.

Table 9–2   Server Administration After Configuration

Configuration Process	Restart Assignment Manager	Regenerate Triggers	Restart Workflow Monitor Agent
Adding or configuring an assignment object, assignment attribute, or assignment criteria	Yes	Yes	Yes
Changing assignment policies	No	Yes	Yes
Activating or deactivating assignment policies	No	Yes	Yes

> **Note:** If you want to automatically refresh skills without restarting the Assignment Manager component, then set the value of the Refresh people skills interval (MaxSkillsAge) parameter to the desired update interval (the value must be greater than zero seconds). Then, when rules are released, Assignment Manager refreshes skills and re-creates the rulecache.dat file at the periodic interval set.

About Server Administration Requirements for Assignment Modes

This topic is part of "Preparing to Run Siebel Assignment Manager" on page 9-1.

Siebel Assignment Manager requires various functioning server components and tasks based on the selected assignment mode. Table 9–3 summarizes the required components and tasks that must be online or started when selecting a particular mode of assignment. When using mobile assignment, use the information provided for either interactive or batch assignment based on your deployment requirements. Detailed information about starting the applicable components and tasks is covered in the remainder of this chapter.

Table 9–3   Server Requirements for Assignment Modes

Assignment Mode	Set Assignment Manager Online	Start Workflow Monitor Agent	Server Request Broker Running
Interactive Mode	Yes	No	Yes
Dynamic Assignment Mode	No	Yes	No

Table 9–3   (Cont.) Server Requirements for Assignment Modes

Assignment Mode	Set Assignment Manager Online	Start Workflow Monitor Agent	Server Request Broker Running
Batch Assignment Mode	No	No	No

In this table, note the following:

- For dynamic and batch assignment, you do not have to start the Server Request Broker when running your tasks using the Server Manager command-line interface (or using an alternate method, such as setting Default Tasks for the server component).

- This information is based on the default Assignment Request (In Process) seeded action.

Additionally, when using availability-based assignment, make sure that the Field Service component group and the ApptBook component are online.

Running Siebel Assignment Manager in Denormalization Mode

Siebel Assignment Manager provides the ability to denormalize positions and organizations using the Contact Denormalization and Product Denormalization features.

Contact Denormalization and Product Denormalization modes do not require assignment rules to function. Assignment Manager does not evaluate the Contact object against any assignment rules in contact denormalization mode, nor does it evaluate the Product object against any assignment rules in product denormalization mode. And, neither mode assigns candidates to these objects. Instead, Assignment Manager gets positions from a related entity in these modes. For example, in Contact Denormalization mode, Assignment Manager gets a union of positions from related accounts and opportunities and assigns it to the contact.

> **Note:**   Contact Denormalization behavior differs among the various Siebel Industry Applications. See the appropriate industry-specific guide to learn more about this behavior.

About Contact Denormalization

You use Contact Denormalization when you want to allow assignees automatic access to detail contact information that is associated with an account or opportunity. In Contact Denormalization mode, Assignment Manager denormalizes positions from the Accounts and Opportunities team tables by copying these positions to the associated contacts in the Contact team table, even if the assignees are not assigned to the contacts:

- Positions from the team table of all accounts associated with the contact to the contact team.

- Positions from the team table of all Opportunities associated with the contact to the Contact team.

> **Note:** The Contact Denormalization object is reserved to run
> Assignment Manager in Contact Denormalization mode. Assignment
> Manager does not evaluate the Contact object against any assignment
> rules in Contact Denormalization mode, and therefore does not assign
> candidates to objects. For this reason, do not create assignment rules
> for the Contact Denormalization object.

If you want the contact access list to reflect the positions in both the account and
opportunity team tables, then you must associate the contact with an account and then
associate the contact with an opportunity. If a team member is removed from the
account or opportunity's team table, then the position on the associated contact's
access list can also be removed by Contact Denormalization (dependent on the
properties of the Contact Denormalization assignment object). Similarly, if the account
team has manually assigned team members and you want the same team members on
both the contact team and account team, then you must run Contact Denormalization
after the account assignment.

> **Note:** Positions marked Indirect by Contact Denormalization in
> Contact Access list are not dropped by contact assignment, that is,
> contact assignment does not drop the positions that were added by
> Contact Denormalization.

Contact Denormalization checks the Lock Assignment column on assignment objects
before denormalizing. If this flag is checked, then Contact Denormalization does not
denormalize the contact record. For more information about the Lock Assignment
feature, see "Setting the Lock Assignment Default Value for Activity Assignment
Objects" on page 10-11.

> **Note:** Both Account and Contact and Contact and Opportunity have
> a many-to-many relationship.

Assignment Manager also assigns a primary position to the contact when running in
Contact Denormalization mode using the following methodology:

1. If the Set Primary Position property on the assignment object is TRUE (checked)
    and a primary position is not currently selected, then Assignment Manager sets
    the creator's primary position as the new primary position.

2. If a primary position is not selected for the creator, then Assignment Manager sets
    the default position as the new primary position.

3. If a default position is not defined, then Assignment Manager does not set a
    primary position.

However, Contact Denormalization does not remove positions marked as the Primary,
even if the positions no longer exist on an associated account or opportunity (with the
Denorm Flag set).

About Product Denormalization

In product denormalization mode, Assignment Manager denormalizes organizations
from the Price List table into the Product table by copying these organizations to the

products associated with the price lists. Run product denormalization only in batch mode.

> **Note:** Product to price list is a many-to-many relationship.

Assignment Manager assigns a primary organization to the product when running in denormalization mode using the following methodology:

1. If the Set Primary Organization flag is checked and a primary organization is not currently selected, then Assignment Manager sets the creator's primary organization as the new primary organization.

2. If a primary organization is not selected for the creator, then Assignment Manager sets the default organization as the new primary organization.

3. If a default organization is not defined, then Assignment Manager does not set a primary organization.

> **Note:** The Product Denormalization object is reserved to run Assignment Manager in Product Denormalization mode. Assignment Manager does not evaluate the Product object against any assignment rules in Product Denormalization mode, and therefore does not assign organizations to objects. For this reason, do not create assignment rules for the Product Denormalization object.

Running Interactive Assignment

Running Siebel Assignment Manager in interactive mode allows end users to make real-time assignments. End users can review a list of potential assignees generated by Assignment Manager, then select and confirm, or override the assignment from the generated potential candidate list. For example, a call center agent might review potential candidates for an activity, then based on the candidates' assignment scores, expertise, or workload, assign the best candidate for the job.

The Activity and Service Request assignment objects are predefined to use interactive assignment, which allows you to assign employees to activities and service requests in real time. However, you can configure other assignment objects to use interactive assignment.

For information about how to configure assignment objects to use interactive assignment, see "Configuring Assignment Objects for Interactive Assignment" on page 6-10.

You can run interactive assignment using any of the following:

■ Siebel Web Client (also known as zero-footprint client)

■ Command-line Server Manager (srvrmgr) program

■ Siebel Developer Web Client

Siebel Mobile Web Client users running Assignment Manager in interactive mode do not make real-time assignments, because any interactive assignments made by mobile users are not applied to the server until these users resynchronize.

> **Note:** Before you run interactive assignment using the Siebel Developer Web Client, it is recommended that you verify that the correct parameter settings exist in your Siebel client configuration (.cfg) file. The parameters identified in this configuration file specify the location of the Siebel Server where Assignment Manager is running and are automatically created during installation of the Siebel client. For information about the Siebel client installation process and configuration file, see the *Siebel Installation Guide* for the operating system you are using.

The requirements for interactive assignment are that the:

- Assignment Manager component is Online
- Server Request Broker component is Running

Running Interactive Assignment from the GUI

This topic is part of "Running Interactive Assignment" on page 9-16.

The Activity and Service Request assignment objects are predefined to use interactive assignment, which allows you to assign employees to activities and service requests in real time.

To run interactive assignment from the GUI

1. Navigate to either of the following locations:

    - Activities screen, then Activity List, and then the All Activities view
    - Service Requests screen, and then the All Service Requests view

2. In the All Activities or All Service Requests list, select an open activity or service request for assignment.

3. In the form below the list, click the Menu button and select Assign to start interactive assignment.

    For an example, see Figure 6–3.

4. Choose an assignee from the list of best candidates provided by Assignment Manager.

    The Siebel application then:

    - Communicates with the Siebel Assignment Manager on the Siebel Server and creates a list of qualified employees for the activity or service request.
    - Displays the list of qualified employees to the Siebel user, sorted by the descending order of scores.
    - Sets the activity or service request owner to the employee that is chosen when clicking the Assign button.

Example of Running Interactive Assignment for Service Requests from the GUI

This topic is part of "Running Interactive Assignment" on page 9-16.

This topic gives one example of running interactive assignment from the graphical user interface (GUI). The example is applicable for use with the Siebel Web Client or

the Siebel Developer Web Client. You might use this feature differently, depending on your business model.

To run interactive assignment for a service request

1. Navigate to the Service Requests screen, and then the All Service Requests view.

2. In the All Service Requests list, select an open service request for assignment.

3. In the form, click the Menu button and select Assign to start interactive assignment.

    For an example, see Figure 6–3.

4. Choose an assignee from the list of best candidates provided by Assignment Manager.

    The Siebel application then:

    ■ Communicates with the Siebel Assignment Manager on the Siebel Server and creates a list of qualified employees for the service request.

    ■ Displays the list of qualified employees to the Siebel user, sorted by the descending order of scores.

    ■ Sets the service request owner to the employee that you choose.

About Running Interactive Assignment in Rule Group Mode

This topic is part of "Running Interactive Assignment" on page 9-16.

By default, interactive assignment submits requests to a Siebel Assignment Manager component that is running in default mode. However, you can use the Assignment Manager component (AsgnSrvr) to run interactive assignment in rule group mode, with or without using server key mappings.

Running Interactive Assignment Using Server Key Mappings

Use server key mappings when you want to split your rules across different servers. You can explicitly define what rule groups to load on what server, and only rules from that particular rule group are executed. At the time of the assignment request, you can specify one of the rule groups as the Assignment Key parameter (AsgnKey) along with the request.

If you use server key mappings, then, when you click the Assign button, a request is sent to the Assignment Manager component to evaluate and return the qualified candidates. To submit requests to a server that has server key mappings, one of the rule group IDs must pass because the AsgnKey parameter must pass. To accomplish this, the SetAsgnKey method is called on the CSSBCBase business component base class. Using a script, a workflow process, or a business service, this method is called and the row ID of one of the rule groups is passed as the parameter.

After this is complete, interactive assignment uses this parameter value as the AsgnKey and ReqKey parameters when submitting requests to the Assignment Manager component. Note that, for one session, you only need to call this method once. Subsequent requests in the same session reuse the rule group row ID. However, when the session is logged out or the server is restarted, you must call this method again to set the AsgnKey parameter. Otherwise, the Assignment Manager reverts to running in default mode.

The following procedure summarizes the steps involved in running interactive assignment using server key mappings.

To run interactive assignment using server key mappings

1. Use the SetAsgnKey method to set the AsgnKey argument to the row ID of the rule group that you want to use.

2. Add the rule group record to the Server Key Mappings view.

3. Add the BusComp user property to the business component being assigned interactively, and set the value of Use Assignment Request Key to TRUE.

Running Interactive Assignment Without Using Server Key Mappings

Assignment Manager supports the use of rule group mode even if you do not want to split your rules across multiple servers. In this case, you do not create server key mappings. Instead, you submit the request by specifying the rule group in the AsgnKey parameter for Assignment Manager. Even if there are no server key mappings, each Assignment Manager process loads all active rules. Assignment Manager determines at request time whether to execute all rules or only rules from a particular group, based on whether or not the assignment key is passed.

The following procedure summarizes the steps involved in running interactive assignment without using server key mappings.

To run interactive assignment without using server key mappings

- Use the SetAsgnKey method to set the AsgnKey argument to the row ID of the rule group that you want to use.

Creating a Custom Siebel Assignment Manager Server Component for Interactive Assignment

In general, interactive assignment always goes to the Assignment Manager (AsgnSrvr) component. However, it is possible to create a custom Assignment Manager component called AsgnSrvrSR to handle only interactive assignments for Service Request objects.

The following procedure describes the steps involved in creating AsgnSrvrSR for handling only interactive assignments for Service Request objects.

To create a custom Assignment Manager server component (AsgnSrvrSR) for interactive assignment

1. Create a new component definition called AsgnSrvrSR, set the Key Based Enabled parameter to TRUE, then restart the Siebel Server services.

2. On the Service Request business component user property, add the following user property value, and then compile it into the siebel.srf file:

User Property Name	User Property Value
Assignment Manager Component	AsgnSrvrSR

3. Perform interactive assignment on a service request.

   When you do this, notice that the request is routed to the AsgnSrvrSR component to execute, evaluate rules, and find candidates.

Running Dynamic Assignment

Dynamic assignment is a feature that works transparently as existing records change or new records are created. For example, you can set up dynamic assignment to automatically assign a service request to an owner when a new record is created or reassign a service request to another owner if the service request is updated.

Dynamic assignment is especially useful in a deployment where users and server programs make frequent changes to the assignment object records (such as service requests and activities), because dynamic assignment can automatically determine the changes and assign the objects to the appropriate people and organizations.

The dynamic assignment process uses the underlying database triggers feature. When a record is modified, either by a user or by another server process like EAI, workflow, and so on, the database trigger (set up by the Generate Triggers component) captures the changes, and queues the assignment request into the S_ESCL_REQ (escalation request) table. The Workflow Monitor Agent then polls the S_ESCL_REQ table periodically and assigns the object by internally invoking Siebel Assignment Manager within its own process.

> **Note:** When the Assignment Policy Action is set to Assignment Request (In Process), the Server Request Broker and the Assignment Manager components are not explicitly used in dynamic assignment.

Requirements for dynamic assignment are that:

- Triggers are generated using Generate Triggers component
- Workflow Monitor Agent is running
- Assignment policies are set and activated
- (Optional) If you are using skills, then make sure that the MaxSkillsAge parameter is set to a value greater than 0 seconds

> **Note:** Dynamic assignment can refresh employee, position, and organization skills from the database if changes are made to these items. The MaxSkillsAge parameter, if defined, forces Assignment Manager to reload this information. By default, this parameter is not set. For more information about MaxSkillsAge, see "Modifying the Siebel Assignment Manager Component Parameters" on page 9-3.

Workflow Monitor Agent

To run dynamic assignment, a Workflow Monitor Agent task must be running. Workflow Monitor Agent detects when a user changes data related to objects. For more information about Workflow Monitor Agent, see *Siebel Business Process Framework: Workflow Guide*.

Generate Triggers

The Generate Triggers component generates the database triggers used by Workflow Manager to detect changes. Generate Triggers reads the Siebel repository definitions for Workflow Policy Object and Assignment Object and generates the appropriate database triggers to monitor changes.

Process of Running Dynamic Assignment

This topic is part of "Running Dynamic Assignment" on page 9-20.

You run dynamic assignment only in default mode, which means that all active rules are loaded and processed. Rule group mode is not supported.

To set up dynamic assignment, perform the following tasks:

1. (Optional) "Reviewing Triggers for Dynamic Assignment" on page 9-21

2. Generating triggers, using either of the following procedures:

   – "Generating Triggers for Dynamic Assignment Using the GUI" on page 9-22

   – "Generating Triggers for Dynamic Assignment Using the Server Manager Command-Line Interface" on page 9-23

3. "Starting Workflow Monitor Agent for Dynamic Assignment Using the Server Manager Command-Line Interface" on page 9-24

Reviewing Triggers for Dynamic Assignment

The database triggers created by the Generate Triggers component detect record changes in the Siebel database and place an assignment request in the S_ESCL_REQ (escalation request) table for the Workflow Monitor Agent to pick up the request and invoke the Assignment Manager. However, triggers generated for Assignment Manager can reference other database columns not associated with assignment rules.

> **Caution:** Make sure that triggers are generated only for an assignment policy's criteria. Large data loads can experience performance issues otherwise.

Do not modify the database triggers. However, before generating or applying triggers for dynamic assignment, you might want to review the trigger.sql file. It is recommended you work with your database administrator to do so.

> **Note:** If you discover redundant triggers, then you must deactivate the appropriate assignment criteria and assignment attribute using Siebel Tools.

Complete the steps in the following procedure to review triggers for dynamic assignment. This task is a step in the "Process of Running Dynamic Assignment" on page 9-21.

To review triggers for dynamic assignment

1. Use Siebel Tools, or view the trigger.sql file (*SIEBSRVR_ROOT*/trigger.sql), to examine the appropriate table columns.

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

2. Disable the inappropriate columns by inactivating the assignment attribute column.

   For detailed information, see "About the Relationship Between Attributes and Skills" on page 6-32.

   If you inactivate only the assignment attribute column and leave the assignment attribute and assignment criteria active, then the assignment criteria appears in the

user interface in the assignment administration views, which means that you can create assignment rules based on that criteria. The following is the result of this action based on whether or not the Employee Skill field is checked:

- If the Employee Skill field is checked, then the assignment criteria is skill-based and, as such, continues to work for assignment rules. For example, the criteria works if you run batch assignment because that mode does not rely on triggers.

- If the Employee Skill field is not checked, then the assignment criteria is object-based, and as such, relies on a valid assignment attribute column configuration. If you attempt to create assignment rules, then you get an error message when the task is run.

3. Drop and regenerate new triggers.

   See "Generating Triggers for Dynamic Assignment Using the GUI" on page 9-22

4. Recheck the trigger.sql file, to confirm that the trigger is no longer active.

   > **Note:**   When dynamic assignment is running, due to the database concurrency feature, some users might receive the following error when attempting to modify a record: `The selected record has been modified by another user since it was received. Please continue.` This result can occur because Assignment Manager updated the record by assigning it while a user was trying to edit it. In this situation, the user's changes might be lost. The solution is to refresh the query and reenter the changes.

Generating Triggers for Dynamic Assignment Using the GUI

Use the Generate Triggers component to generate the database triggers used by Workflow Manager to detect changes in the database.

> **Note:**   You cannot create custom triggers on the Siebel database. The only supported triggers allowed on the Siebel database are those generated during installation or from running the Generate Triggers component.

For dynamic assignment, you must run the Generate Triggers component after:

- Creating or changing an Assignment Object, Assignment Attribute, or Assignment Criteria object type in Siebel Tools
- Changing assignment policies
- Installing or upgrading the Siebel Server

  > **Tip:**   When amending an assignment rule, criteria, or value, or when making changes to assignment positions in dynamic mode, you do not have to drop and regenerate database triggers.

Complete the steps in the following procedure to generate triggers for dynamic assignment using the GUI. This task is a step in the "Process of Running Dynamic Assignment" on page 9-21.

To generate triggers for dynamic assignment using the GUI

1. Navigate to the Administration - Server Management screen, and then the Jobs view.

2. In the Jobs list, click New.

   A new record appears with a system-defined ID automatically generated with a status of Creating.

3. In the Job Detail subview, enter the relevant information for the new component job record.

   a. In the Requested Server field, type the name of the Siebel Server for which you want to run Generate Triggers.

   b. In the Request Key field, enter the name of the request key.

   c. Complete the rest of the fields, if needed.

4. In the Job Parameters list, click New to create a new record for the Privileged User, and enter the relevant parameter information.

   a. In the Name field, click the select button.

   b. In the Job Parameters dialog box, query for PrivUser, and then click OK.

   c. In the Value field, enter the privileged user name.

   > **Note:** If you are using a Microsoft SQL Server database, then you must set the Privileged User Password value to the user password with tableowner privileges. Also make sure that the Table Owner value is set to dbo.

5. In the Job Parameters list, click New to create a new record for the Privileged User Password, and enter the relevant parameter information.

   a. In the Name field, click the select button.

   b. In the Job Parameters dialog box, query for PrivUserPass, and then click OK.

   c. In the Value field, enter the privileged user password.

6. In the Jobs List, click the Start button.

For more information about generating database triggers, see *Siebel Business Process Framework: Workflow Guide*.

Generating Triggers for Dynamic Assignment Using the Server Manager Command-Line Interface

You can run dynamic assignment using by running the Generate Triggers component from the Server Manager command-line interface (srvrmgr), using the parameters described in Table 9–4.

For more information about using the Server Manager command-line interface, see *Siebel System Administration Guide*.

Table 9–4   Generate Triggers Parameters

Parameter Name	Display Name	Description	Default Value
EXEC	EXEC	Install Triggers to DB directly	FALSE
Mode	Mode	Assignment Manager and (or) Workflow mode (ASGN, WORK, or ALL)	ALL
Remove	Remove	Remove All Triggers Mode	FALSE
TAMode	TAMode	All Territory or Contact Only mode	ALL
TrigFile	Trigger File Name	Output trigger script file name	trigger.sql

Starting Workflow Monitor Agent for Dynamic Assignment Using the Server Manager Command-Line Interface

To run dynamic assignment, the Workflow Monitor Agent server component (WorkMon) needs to be running. This server component monitors the S_ESCL_REQ table. Database triggers, when fired because of object changes, create records in the S_ESCL_REQ table. The Workflow Monitor Agent reads these new records and processes requests for Assignment Manager policies. Affected objects are then dynamically assigned.

> **Note:**   Dynamic assignment does not log information into the S_ESCL_LOG table. For more information about log files, see *Siebel System Monitoring and Diagnostics Guide*.

Complete the steps in the following procedure to start workflow monitor agent from the Server Manager command-line interface (srvrmgr). This task is a step in the

To start Workflow Monitor Agent from the Server Manager command-line interface

1. Determine the workflow group that you want Workflow Monitor Agent to monitor.

    a. Navigate to the Administration - Assignment screen, and then the Assignment Policies view.

    b. In the Policy Group field in the Assignment Policies list, choose the workflow group (the default group is Assignment Group).

2. Start the srvrmgr program.

    For detailed information on this task, see *Siebel System Administration Guide*. After the program starts, the prompt changes to:

    ```
    srvrmgr: server_name>
    ```

3. At the prompt, enter the following information to start the Workflow Monitor Agent server component task; use the Group information gathered from Step 1 (Assignment Group used in this example):

    ```
    start task for component workmon with GroupName="Assignment Group"
    ```

4. Configure other component parameters, if needed.

For more information about other configurable parameters, see Table 9–5.

> **Note:** Separate the parameters and their values in the command-line statement with commas.

5. Alternatively, you can configure a Workflow Monitor Agent to start automatically to process assignment requests whenever the Siebel Server starts.

For more information about Workflow Monitor Agent, see *Siebel Business Process Framework: Workflow Guide*.

This command starts a new task running in the background and returns to the Server Manager immediately.

> **Note:** It is possible to set up multiple Workflow Monitor Agents for dynamic assignment. For more information about setting up multiple Workflow Monitor Agents, see the information about starting Workflow Agent processes automatically with Siebel Server, in *Siebel Business Process Framework: Workflow Guide*.

Table 9–5 shows the Workflow Monitor Agent parameters.

> **Note:** The Action Interval parameter has no effect on assignment policies, where Workflow Monitor Agent was started in the Administration - Assignment screen, and the Assignment Policies view, with the group Assignment Group. This parameter applies only to workflow policies created in the Administration - Business Process screen, and the Workflow Policies view. If you require this parameter, then invoke Assignment Manager through the Synchronous Assignment Manager Requests business service from within a workflow process. For more information, see "How Siebel Assignment Manager Uses Server Key Mappings to Load Rules to a Particular Siebel Server" on page 5-20. See also *Siebel Business Process Framework: Workflow Guide* and 1582117.1 (Article ID) on My Oracle Support.

Table 9–5   Workflow Monitor Agent Parameters

Parameter Name	Alias	Description	Default Value
Action Interval	ActionInterval	Do not reexecute actions within specified interval in minutes. **Note:** This parameter applies only to workflow policies, not to assignment policies.	3600
Cache size of Policy violations	CheckLogCacheSz	Number of policy violations to store in cache	100
Cache size of last user information	LastUsrCacheSz	Number of last user information items to cache	100
Group Name	GroupName	Group Name	Not applicable
Ignore errors	IgnoreError	Ignore errors while processing requests	FALSE

Table 9–5   (Cont.) Workflow Monitor Agent Parameters

Parameter Name	Alias	Description	Default Value
Mail Server	MailServer	Name of email server to send notification of abnormal termination	Not applicable
Mailing Address	MailTo	Email address to review notification of abnormal termination	Not applicable
Number of days to keep violation information	KeepLogDays	Number of days worth of violation information that should be retained	30
Number of seconds to retry	GenReqRetry	Number of seconds to retry sending a Generic Request message	120
Processes the batch Policies	BatchMode	Process the batch policies	FALSE
Reload Policy	ReloadPolicy	Reload Policy Interval, in seconds	600
Request delete size	DeleteSize	Request delete size	500
Requests per iteration	Requests	Requests per iteration	5000
Sleep Time	SleepTime	Time to sleep between iterations (in seconds), that is, is the frequency of time the Workflow Monitor Agent polls the S_ESCL_REQ table (escalation request table) and assigns rows. For example, if SleepTime is set to 60 seconds, then the Workflow Monitor Agent polls the S_ESCL_REQ table, then waits 60 seconds before it polls it again.	60
Use Action Agent	ActionAgent	Use Action Agent	FALSE

For more information about starting, stopping, and monitoring server tasks, see *Siebel System Administration Guide*. For more information about the Workflow Monitor Agent, see *Siebel Business Process Framework: Workflow Guide*.

About Tuning Dynamic Assignment for Performance

This topic is part of "Running Dynamic Assignment" on page 9-20.

If users experience slow response time while running Siebel Assignment Manager in dynamic mode, then you can implement one or more of the following to improve dynamic assignment performance:

■   Increase the Requests (Requests per iteration) workflow monitor parameter (the default is set to 5,000).

■   Decrease the SleepTime workflow monitor parameter (the default is 60 seconds).

■   Increase the ReloadPolicy workflow monitor parameter to a much larger number, for example, 86,400 seconds (the default is 600 seconds).

■   Distribute each assignment policy into its individual group and then invoke several Workflow Monitor Agents concurrently (one on each Siebel Server, if available).

Activating Contact Denormalization for Dynamic Assignment

This topic is part of "Running Dynamic Assignment" on page 9-20.

For dynamic assignment, if you want to run Siebel Assignment Manager in contact denormalization mode, then you must activate the Contact Denormalization assignment policy. By default, this policy is inactive.

> **Note:** When Assignment Manager runs in contact denormalization mode, it does not evaluate assignment rules. Therefore, you do not have to select the Contact Denormalization object for the assignment rule to run Assignment Manager in contact denormalization mode.

Use the following procedure to activate contact denormalization for dynamic assignment.

To activate contact denormalization

1. Navigate to the Administration - Assignment screen, and then the Assignment Policies view.

2. In the Assignment Policies list, select Contact Denormalization, and then perform the following:

    a. In the Policy Group field, click the select button.

    b. In the Workflow Groups dialog box, select a workflow group (the default is Assignment Group), and then click OK.

    c. In the Expiration field, either clear the existing value or set the value to a later date.

> **Note:** If running batch assignment, then you do not have to activate this policy.

About Running Batch Assignment

Use batch assignment to assign multiple records of an object in a single batch. Typically, you want to run batch jobs periodically when you anticipate the least amount of database activity (such as daily or weekly after-hours).

Batch assignment runs only in rule group mode. At the time of the assignment request, you specify one of the rule groups as the Assignment Key parameter for the AsgnBatch server component job along with the request. You identify the records for batch assignment using an SQL WHERE clause. This WHERE clause is usually based on columns in the base table of the assignment object. For example, an example of a WHERE clause is:

```
WHERE OWNER_EMP_ID = NULL
```

You can use this clause to identify all service requests that are not as yet assigned to a owner.

You can have a batch assignment task load only a particular group of rules into memory by specifying the row ID of the rule group in the Assignment Key parameter when you start the task. If no rule group is specified for this parameter, then the batch task loads all rules in the Default Rule Group into memory. If no rule groups have been defined in the application, then all active rules in the database load.

> **Caution:** For performance reasons, do not run dynamic assignment when running batch assignment. If you run both batch assignment and dynamic assignment in your environment, then the batch assignment can activate dynamic assignment due to triggers created in the database required to run dynamic assignment. Before running batch assignment, deactivate all assignment policies and drop related triggers to prevent dynamic assignment from processing modified rules, objects, and candidates. After completing batch assignment, you can reactivate the assignment policies and re-enable dynamic assignment.

This topic contains the following information:

- "Running Batch Assignment" on page 9-28
- "Running Batch Assignment Using the Server Manager Command-Line Interface" on page 9-31
- "About Running Multiple Instances of Siebel Assignment Manager in Batch Mode" on page 9-31
- "About Tuning Batch Assignment for Performance" on page 9-32

Running Batch Assignment

This topic is part of "About Running Batch Assignment" on page 9-27.

Batch assignment executes the Batch Assignment component (AsgnBatch) to perform assignment in batch mode. This component can take the Object Where Clause parameter and other appropriate parameters that determine the candidates for chosen objects

You typically use batch assignment for importing new records from a legacy system, or when an assignment rule changes, such as when a sales representative no longer manages a specific ZIP Code.

When You Must Run Batch Assignment

You *must* run Assignment Manager in batch mode if you change nonobject data that can affect assignments. Such situations occur whenever you do the following:

- Modify assignment rules and want these changes to affect existing objects. You modify assignment rules when you:
  - Add or remove employees, positions, or organizations
  - Add, remove, or update assignment criteria or criteria values
  - Associate a rule with a different rule group or change the rule sequence number
  - Change scores
  - Change activation and expiration dates
  - Change exclusive mode
- Modify the list of employees, positions, or organizations and you want these changes to affect existing objects.

- Change the Assignment Manager configuration in Siebel Tools and you want your changes to affect existing objects. You change the Assignment Manager configuration when you:

  - Change Assignment Attribute definitions

  - Change Assignment Criteria definitions

  - Change Assignment Object definitions

  - Change Workflow Policy Object definitions

- Use Siebel Enterprise Integration Manager (EIM) to perform initial loads (if you do not run Generate Triggers to create the appropriate triggers).

  > **Note:** When using Siebel EIM to load assignment rules, then make sure that the column ASGN_TYPE_CD includes a value. If it is left NULL, which is permissible in Siebel EIM, then the rules are loaded but Assignment Manager fails.

- Determine that existing assignments might not be accurate. Assignment Manager does not change assignments if the existing assignments are correct.

  > **Note:** When batch mode is run on correct assignments, even if there are no changes to the team or primary, an update of the record occurs. This situation can disturb other workflow policies relying on various record fields. For example, a workflow policy relying on the PR_POSTN_ID column to trigger an action does not work properly if this field is updated from a new batch assignment. If your deployment uses Microsoft SQL Server, then this note does not apply.

You can configure the Batch Assignment server component for your implementation by adjusting the appropriate parameters. Table 9–1 lists the parameters used by the Batch Assignment component that you can set.

Use the following procedure to run batch assignment.

To run batch assignment

1. Navigate to the Administration - Server Management screen, and then the Jobs view.

2. In the Jobs list, click New.

   A new record appears with a system-defined ID automatically populated with a status of Creating.

3. In the new record, enter the relevant information for the new job.

   a. In the Component/Job field, select Batch Assignment.

   b. In the Requested Server field, type the name of the server on which you want to run this batch request.

   c. (Optional) If you want to run a specific rule group for this batch, then type the row ID of the assignment rule group for which you want rules processed for the AsgnKey parameter.

   d. Complete the rest of the fields for the new record, if needed.

4. In the Job Parameters list, click New to create a new record, and enter relevant information for the assignment object that you want to assign as part of this batch request.

   a. In Name field, click the select button.

   b. In the Job Parameters dialog box, select Assignment Object Name, and then click OK.

   c. In the Value field, enter the name of the assignment object for the parameter.

      Use the exact name found in Siebel Tools, such as `Service Request` or `Order (Sales Credit Assignment)`.

      Note: Because batch assignment cannot run more than one assignment object per batch, run batch assignment on only one assignment object for each batch.

      ---

5. While still in the Job Parameters list, click New to create a new record so that Assignment Manager uses the Object Where Clause parameter to limit the number of rows processed at one time.

   a. In Name field, click the select button.

   b. In the Job Parameters dialog box, query for ObjWhereClause, click Go, and then click OK.

   c. In the Value field, enter a WHERE clause to select the object instance that you want to process; the WHERE clause can include up to 100 characters.

      For example, to select object instances beginning with ibm, type:

      ```
      WHERE name like 'ibm%'
      ```

      Note: If you leave the Value field blank, then all object instances are selected. However, it is strongly recommended that you limit the number of rows that Assignment Manager processes, to make sure that sufficient rollback space is available.

   For more information about using the object WHERE clause, see "Setting the Log Level of Siebel Assignment Manager Events" on page 9-11.

6. (Optional) If you want to enable Contact Denormalization for batch assignment, then add two more component job parameter records with values from the following table.

Parameter Name	Value
Assignment Object Name	`Contact Denormalization`
Assignment Mode	Denorm

7. (Optional) If you want to save changes to the database during batch processing, then add another component job parameter, as follows:

   a. In Name field, click the select button.

   b. In the Job Parameters dialog box, query for Batch Size, and then click Go.

    c. In the Value field, enter the number of objects to assign before committing each batch.

8. In the Job Detail form, click the menu button and choose Start Job.

> **Note:** Monitor the performance of Batch Assignment and increase or decrease the number of running tasks to obtain optimal performance.

Running Batch Assignment Using the Server Manager Command-Line Interface

This topic is part of "About Running Batch Assignment" on page 9-27.

You can run batch assignment by running the Batch Assignment (AsgnBatch) component from the Server Manager command-line interface (srvrmgr), using the parameters described in Table 9–1.

For more information about using the Server Manager command-line interface, see *Siebel System Administration Guide*.

You can have a batch assignment task load only a particular group of rules into memory by specifying two job parameters in the request:

- Use Key Value = *Rule_Group*

- Actual Assignment Key = *Rule_Group_ID*

For example, the following command tells Assignment Manager to only look at or modify candidates on the team whose rule group ID is 1-34XD4 and runs only those rules that are a part of that rule group.

```
start task for comp asgnbatch with asgnobjname = "Activity", usekeyval = "Rule
Group", ActualAsgnKey = "1-34XD4"
```

About Running Multiple Instances of Siebel Assignment Manager in Batch Mode

This topic is part of "About Running Batch Assignment" on page 9-27.

When there are many objects that must be assigned, you can run multiple instances of Assignment Manager in batch mode to improve performance. First, develop a strategy for specifying multiple batches using the Object Where Clause parameter in the Batch Assignment component. Then, start multiple instances of batch assignment specifying the appropriate Object Where Clause value for each instance.

For example, you can run one instance of batch assignment for accounts that changed today and a different instance of batch assignment for accounts that changed yesterday. Use the Object Where Clause parameter to specify the following:

- For the batch that processes accounts changed today:

  ```
  Object Where Clause: WHERE LAST_UPD = SYSDATE
  ```

- For the batch that processes accounts changed yesterday:

  ```
  Object Where Clause: WHERE LAST_UPD = SYSDATE - 1
  ```

> **Note:** These examples use a nonindexed field: LAST_UPD. It is recommended, however, that you use indexed fields for object WHERE clause statements. Also, use the appropriate database datetime functions to determine the current date and time, depending on the database that you are using. This example uses SYSDATE, which is specific to Oracle Database datetime functions.

To process mutually exclusive sets of records when running multiple instances of Assignment Manager simultaneously for the same assignment object, specify an Object Where Clause for each assignment task. You can also distribute the tasks on multiple Siebel Servers to enhance performance.

When Not to Run Multiple, Simultaneous Batch Jobs

Do *not* run multiple, simultaneous batch jobs in the following cases:

- If multiple assignment batches are executed for the same object.

  > **Note:** If multiple assignment batches are executed for the same object using workload criteria, then the results can potentially vary and might not be as desired.

- If the batch jobs update rows on the same table or tables.
- If one batch job updates records in a table or tables used by another batch job as input.
- If the batch jobs use workload criteria to assign the same object.

Examples of when you should *not* run multiple simultaneous batch jobs include:

- Contact and Contact Denormalization, because the same tables are updated.
- Account and Contact Denormalization, because Contact Denormalization uses Account team as input.
- Opportunity and Contact Denormalization, because Contact Denormalization uses Opportunity team as input.

About Tuning Batch Assignment for Performance

This topic is part of "About Running Batch Assignment" on page 9-27.

If users experience slow response time while running Assignment Manager in batch mode, then review the settings on virus software installed on the applicable server. Implement one or more of the following settings to improve batch assignment performance:

- Virus scan only program files.
- Exclude all outbound files from virus scanning.
- Exclude the RDBMS directory from virus scanning. This directory contains MSB (Oracle message binary) files.

Make sure to run a full virus scan on all files during the weekend or off-peak time if the preceding settings were used.

You can also implement one or more of the following to boost batch performance in batch mode:

■ Increase the BatchSize parameter, for example, set the batch size to 500 (the default is set to 100).

Increasing the parameter value increases the number of records that are processed within a transaction before a commit occurs, resulting in less resources used and faster assignment.

> **Note:** Only set large batch sizes when there are no or very few users on the system.

■ Create multiple instances of batch assignment (using WHERE clause statements). See "About Running Multiple Instances of Siebel Assignment Manager in Batch Mode" on page 9-31.

■ Select a good filter.

Carefully choosing a filter reduces the time it takes to retrieve Object records.

> **Note:** Use indexed field or fields for comparison in the object WHERE clause, such as Name for Account and Opportunity, or Last Name for Contacts.

■ Use better logic.

For example, if you want to run Account Assignment based on account name, then you can create multiple batches so that the first batch starts with names starting with the letter C through K, and the second batch starts with the names starting with the letter L. Optionally, additional batches might be created starting with later letters.

Consider the following logic for the object WHERE clause:

```
WHERE NAME > 'B' AND NAME < 'L'
```

Although this WHERE clause causes the database to retrieve account records with names starting with the letter C through K, the clause specifies that if accounts starting with the letter M through Z are encountered, they are passed on the first round because the values are greater than B. However, in the second round, these records are then eliminated by the database as unneeded, because there is a cap of account names less than L.

It is better logic to use this object WHERE clause instead:

```
WHERE NAME < 'L' AND NAME > 'B'
```

By switching the order of the conditions, the extra parsing required by the database in the second round is eliminated because most of the names start with a letter greater than B.

Running Mobile Assignment

Use mobile assignment to reassign people based on changes uploaded by Mobile Web Clients. Siebel Assignment Manager assigns objects after a Mobile Web Client synchronizes with the Siebel Server and uploads assignment requests or any changes

to objects and assignment rules. Depending on the configuration of Generate Triggers, the Workflow Monitor detects these changes and activates Assignment Manager to dynamically reassign affected objects.

> **Note:** If a Mobile Web Client sends an assignment request to the Siebel Server while running mobile assignment, then the request is sent as an asynchronous request. Because of this, the request does not override the Keep Manual Assign property.

To run mobile assignment

1. Be sure that you have run the Generate Triggers server component.

   For instructions, see "Generating Triggers for Dynamic Assignment Using the GUI" on page 9-22.

2. Start the Workflow Monitor Agent.

   For instructions, see "Starting Workflow Monitor Agent for Dynamic Assignment Using the Server Manager Command-Line Interface" on page 9-24.

> **Note:** If you are running interactive assignment, then make sure that the Server Request Broker server component is running. For instructions on checking the status of a server component, see *Siebel System Administration Guide*.

About Running Assignment Manager in Reporting Mode

Reporting mode provides the assignment administrator the ability to perform trial assignments and what-if analysis. When you are running Assignment Manager in reporting mode, assignments are written into results tables, known as reporting tables, rather than into the actual database tables. Reporting mode allows the administrator the opportunity to preview possible assignment before actual assignments are made.

For more information about reporting tables, see "Configuring Siebel Assignment Manager to Use Reporting Tables and Columns" on page 10-21.

You can run Assignment Manager in reporting mode either from the GUI or using the Server Manager command-line interface (srvrmgr). In either mode, you initiate a reporting mode request using either the Assignment Manager (AsgnSrvr) or the Batch Assignment (AsgnBatch) server component. You pass the Reporting Mode (RptMode) parameter, specifying one of the following values:

- **Snapshot.** Reporting is turned on. Assignment Manager performs assignment validations and writes resulting candidates to the reporting team tables.

- **Delta.** Reporting is turned on. Assignment Manager performs assignments, compares existing assignment team table and writes the results to the reporting team tables.

For example, the following command tells Assignment Manager to read from and write to only the reporting tables where the reporting team tables store a snapshot of the results:

```
start task for comp asgnsrvr with asgnobjname="Opportunity", objwhereclause="where
name='James Opty'", rptmode="Snapshot"
```

> **Note:** By default, reporting is turned off. That is, when the Regular Assignment parameter is set to FALSE, no assignment takes place. However, irrespective of whether reporting is turned on or off, Assignment Manager can write evaluation results to actual assignment tables.

Using Siebel Tools, you specify key columns through properties on the assignment object. Assignment Manager reads these key columns to differentiate between candidates. Assignment Manager stamps these key values; that is, Assignment Manager sets the key value for each record, to keep track of what employees, positions, or organizations are added in a specific assignment execution.

Then, when submitting an assignment request, you can pass one of the following values for stamping:

- Person Key Value (PersonKeyVal) for employees and positions
- Organization Key Value (OrgKeyVal) for organizations

For example, the following command tells Assignment Manager to execute in reporting delta mode, where it merges the team from this run to the current team in the regular tables, and then writes the results to the reporting table. However, it only executes the rule against the Account 1 account, updates or changes positions that have the key value 12-RG2, and stamps all new positions with the value 12-RG2.

```
start task for comp asgnsrvr with asgnobjname="Account", objwhereclause="where
NAME like 'Account 1'", UseKeyVal="Key Value", PersonKeyVal="12-RG2",
RptMode="Delta"
```

The Key Column in the S_ACCNT_POSTN results table holds either the rule group ID or a key value to distinguish candidates. You use the UseKeyVal parameter to indicate whether Assignment Manager uses a key value to filter and stamp candidates. The choices for UseKeyVal are:

- **Rule Group.** Assignment Manager automatically using the rule group from which a particular candidate passes and stamps that rule group ID on the key column that you defined.
- **Key Value.** User supplies either a Person Key Value (for employees and positions), or an Organization Key Value (for organizations) along with the request, then Assignment Manager stamps that value.

For example, assume that you run AsgnSrvr with Rule Group 1 (RG1), and the result is that Position 1 is added to Account 1. Next, you run Rule Group 2 (RG2) and Position 2 is added to Account 1. If you do not want a second AsgnSrvr run to touch or change anything from the first run, then you run AsgnSrvr with the UseKeyVal parameter set to either Rule Group or Key Value.

- If UseKeyVal = Rule Group, then Assignment Manager saves the rule group ID in the Key Column property in the Assignment Object Extension object. In addition, Assignment Manager does not delete any positions whose key column value does not match the rule group ID.
- If UseKeyVal = Key Value, then you must also pass along another parameter as well: either PersonKeyVal or OrgKeyVal.

  In this case, because you are working with account positions, Assignment Manager passes the PersonKeyVal parameter.

When you run AsgnSrvr again, you might run the following command:

```
start task for comp asgnsrvr with asgnobjname="Account", objwhereclause="where
NAME like 'Account 1'", UseKeyVal="Key Value", PersonKeyVal="12-RG2",
RptMode="Delta"
```

Later, if you make changes to Rule Group 2 and want to run another assignment request, then you can use the same command. Only the positions on the account team with a key value of 12-RG2 change.

For more information about using the Server Manager command-line interface, see *Siebel System Administration Guide*.

About Siebel Assignment Manager Rule Cache Files

The rule cache file contains the most recent copy of assignment rule, criteria, candidates, skills, and skill items information from the last time assignment rules were released. A cache file is re-created every time assignment rules are released or when skills have expired.

Depending on the mode in which you run Assignment Manager, the following cache files are used:

- **rulecache.dat**

   This file contains information about all active rules in the database. When Assignment Manager runs in default mode, this file is used by each of the three assignment operation modes (interactive, batch, and dynamic assignment).

- **rulecache_*SERVERNAME*.dat**

   This file (where *SERVERNAME* is the name of the Siebel Server) contains information about the rules in the rule groups assigned to a particular Siebel Server and is used when server key mappings are defined.

- **batchrulecache_*RULEGROUPID*.dat**

   When batch assignment runs in rule group mode, you can specify whether it uses the default mode cache file (rulecache.dat) or a separate cache file by way of the Independent Rule Group Cache parameter.

   – If you set this parameter to FALSE, then it uses the default mode cache file (see rulecache.dat previously described in this topic).

   – If you set this parameter to TRUE, then it creates a separate cache file, batchrulecache_*RULEGROUPID*.dat (where *RULEGROUPID* is the Assignment Key parameter you passed along with the request).

   There can be multiple cache files of this type, because you can use batch assignment in rule group mode for different rule groups. This rule group cache file is a smaller file, therefore providing better performance than the default mode cache file. Performance is better because the batchrulecache_*RULEGROUPID*.dat file only has information about some rules for some rule groups, while the rulecache.dat file has information about all active rules for all rule groups.

   > **Note:** The default value of the Independent Rule Group Cache parameter is TRUE because this setting gives better performance. Thus, if batch assignment is running in default mode (that is, the Assignment Key parameter is not supplied), then the value of this parameter is excluded.

About Using External Components to Invoke Siebel Assignment Manager

You can make assignments by invoking Siebel Assignment Manager from within a Siebel workflow process, business service, or Siebel script interface.

Assignment Manager provides the ability of sharing inputs and outputs (supports rerouting of objects) with an external component. Assignment Manager can return qualified or assigned candidates along with their scores in the form of a hierarchical property set. A property set is a set of name-value pairs that are used by various Siebel components to pass information back and forth between them.

This feature is particularly useful in a workflow process. For example, a business service step in a workflow process might call on Assignment Manager (with the assignment mode set to Match) to evaluate potential candidates and return the set of qualified candidates in a property set along with their scores. Then, the workflow process can, based on other business logic, decide the set of candidates that are assigned.

Assignment Manager integration behavior is controlled by the Return Property Set parameter (ReturnPropSet). Table 9–6 lists the conditions for which Assignment Manager returns a property set or writes the results to the database.

Table 9–6   ReturnPropSet Parameter Behavior

AsgnMode	Writes to Database	Returns Property Set
Synchronous:Match	If ReturnPropSet is FALSE, then it writes to database	No property set returned
	If ReturnPropSet is TRUE, then it does not write to database	Qualified candidates returned
Synchronous:Assign	Writes to database	No property set returned
Synchronous:MatchAssign	Writes to database	If ReturnPropSet is TRUE
Asynchronous	Writes to database	No property set returned

Figure 9–1 illustrates the structure of the output property set that Assignment Manager returns from a synchronous request, given the input parameter AsgnMode = Match or MatchAssign.

Figure 9–1   Example of Output Property Set Structure Returned from a Synchronous Request

```
                        The Output Property Set

1. PropertyName: "ReqID",          Value: The request id    Returned by SRM


2. Child Property Set
           Child Property SetType: "Employee", Value: "Row_Id"
                   Name: "Score",  Value: Score of employee with highest score
                   Name: "ID",     Value: Row_Id of the employee
           Child Property Set      Type: "Employee", Value: "Row_Id"
                   Name: "Score",  Value: Score of the employee with 2nd highest score
                   Name: "ID",     Value: Row_Id of the employee
           Child Property Set      Type: "Employee", Value: "Row_Id"
                   Name: "Score",  Value: Score of the employee with 3rd highest score
                   Name: "ID",     Value: Row_Id of the employee
           ...

           Child Property SetType: "Position", Value: "Row_Id"
                   Name: "Score",  Value: Score of the employee
                   Name: "ID",     Value: Row_Id of the employee
           Child Property Set      Type: "Position", Value: "Row_Id"
                   Name: "Score",  Value: Score of the employee
                   Name: "ID",     Value: Row_Id of the employee
           ...
```

About Tuning Siebel Assignment Manager for Performance in an IBM DB2 Deployment

If you are using IBM DB2, then, for performance reasons, periodically execute the REORG and update statistics utilities against all applicable tables for the assignment objects that you use.

For example, to enhance Siebel Assignment Manager performance before running batch or dynamic assignment for contact territory realignment (assuming that you are using the preconfigured Contact assignment object), execute REORG and update statistics against the related tables, such as the S_CON_TERR and S_POSTN_CON tables.

For the Account assignment object, consider evaluating the S_ORG_TERR and S_ACCNT_POSTN tables; and for the Opportunity assignment object, consider evaluating the S_OPTY_TERR and S_OPTY_POSTN tables; and so on. For applicable tables for other assignment objects (planned or in use), view the assignment object properties for those objects using Siebel Tools.

For more information about the REORG and update statistics utilities, see *Implementing Siebel Business Applications on DB2 for z/OS* and the *Siebel Installation Guide* for the operating system you are using.

About Using an Object WHERE Clause to Restrict the Number of Records Processed

The Object Where Clause (ObjWhereClause) parameter can be used to restrict which records are retrieved and processed. Standard SQL WHERE statements are used for the object WHERE clause, and can include up to 2048 characters when a Siebel Assignment Manager job is started using the command-line interface. However, when you start an Assignment Manager job from the GUI, you can only specify up to 100

characters. Also, when using wildcards in the object WHERE clause, make sure that you use the correct wildcard specific to your database.

The following object WHERE clause examples for the Account assignment object are provided as a guideline. Typically, assignment administrators work with their database administrator to generate optimal SQL for their implementation.

As an example, the following conditions for the Account assignment object can apply:

■ Joins are allowed in the object WHERE clause. An example of a join is as follows:

```
Object Where Clause = where pr_postn_id in (select row_id from s_postn where
name = 'Sales Rep')
```

■ The object WHERE clause assumes that the base table is coming from the assignment object specified.

If you start batch assignment specifying the assignment object as Account and the object WHERE clause as `where row_id = '1-232'`, then batch assignment attempts to assign only the `row_id = '1-232'` from the S_ORG_EXT table.

The following is an example of a batch assignment request using the command-line interface:

```
start task for comp asgnbatch with asgnobjname="Account", asgnmode="MatchAssign",
objwhereclause="where name like 'B%'"
```

This command batch assigns accounts starting with *B*.

Optionally, you can use the command-line interface and the object WHERE clause to run only a select number of assignment rule groups. The following is an example of this:

```
start task for comp asgnbatch with asgnobjname="Account", objwhereclause="where
name like 'B%'", asgnkey="12-4DR56"
```

In this example, 12-4DR56 is the row ID of an assignment rule group, and only the rules belonging to this group are evaluated when this parameter is passed in the request.

> **Note:** When using the Server Manager command-line interface, use double quotation marks for the value of the ObjWhereClause parameter; otherwise, it is treated as a command-line option that changes the case.

10

Advanced Siebel Assignment Manager Configuration

This chapter discusses advanced configuration techniques for Siebel Assignment Manager. Before creating your assignment rules, you might need to perform various configuration tasks described in this chapter. Some configuration tasks might not be applicable for your needs.

> **Note:** Do not attempt to perform procedures in this chapter until you are very familiar with basic Assignment Manager configuration and assignment rule creation. This chapter is intended for users who are already familiar with Assignment Manager basic features and require more information on refining their Assignment Manager deployment.

This chapter includes the following topics:

- "Configuring Siebel Assignment Manager to Use Reporting Tables and Columns" on page 10-21

- "Configuring Assignment Objects for Multitiered Assignment" on page 10-24

- "Scenarios for Using Multitiered Assignment with Sales Assignment Rules" on page 10-26

- "Configuring Siebel Assignment Manager to Add Scores Across Rules" on page 10-30

Requirements for Completing Advanced Configuration for Siebel Assignment Manager

Before beginning any advanced configuration procedures, obtain background knowledge in the Siebel software architecture, Siebel Tools, and Siebel Workflow Manager. Consult the following documentation for this information:

- *Using Siebel Tools*

- *Configuring Siebel Business Applications*

- *Siebel Developer's Reference*

- *Siebel Business Process Framework: Workflow Guide*

- *Siebel Installation Guide* for the operating system you are using

Creating Assignment Objects

Using Siebel Tools, you can create new assignment objects by adding an assignment object to a workflow policy object. However, adding assignment objects can require the addition of skills or other tables and columns.

> **Caution:** Because of the complex requirements involved, it is recommended that you submit a service request (SR) on My Oracle Support if you must create new assignment objects. If you create your own assignment objects, then you risk Assignment Manager making incorrect assignments.

To create an assignment object

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and select Assignment Object.

   > **Tip:** If Workflow Policy Object is not visible in the Object Explorer, then you can enable it by selecting View, then Options, then Object Explorer in the Development Tools Options dialog box.

3. In the Workflow Policy Objects window, select the workflow policy object type for which you want to add the new assignment object.

4. Select the Assignment Objects window and choose Edit, then New Record.

5. Configure the assignment object by setting values in the appropriate fields for each property.

For a list of assignment object properties and their default values, see *Siebel Object Types Reference*.

6. If you are running dynamic assignment, then activate an assignment policy for the assignment object.

For more information about dynamic assignment, see "Process of Defining Assignment Policies for Dynamic Assignment" on page 5-69.

7. Update your deployment with the new configurations.

For instructions, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

Creating New Skills

Skills are assignment criteria values attributed to specific assignment rules, objects, employees, positions, and organizations. Siebel Assignment Manager uses skills to match assignment rules, objects, employees, positions, and organizations.

The Siebel Business Applications provide several predefined skills, however, you can create new skills using Siebel Tools. This topic explains how to view the predefined skills and create new skills.

For most deployments, the predefined skills are sufficient. However, you can create new skills using Siebel Tools. The following procedure explains how to create a new skill that can be used in any of the Siebel Business Applications.

To create a new skill

1. Create an assignment attribute.

2. Create an assignment criterion.

You must check the Employee Skill field because you are configuring the criterion as a skill.

3. Add the assignment attribute created in Step 1 as a child object to the assignment criterion created in Step 2.

For more information about creating assignment attributes, assignment criteria, and assignment criteria attributes, see "Process of Creating Assignment Criteria for Use in Assignment Rules" on page 6-15.

> **Note:** To perform assignments based on skills, further configuration is required using Siebel Tools. For more information about configuring criteria as skills, see "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58.

Example of Using Skill Tables

The skill and skill item tables are child and grandchild tables, respectively, of the object used to store skills and skill items for assignment objects that are not stored as columns in the parent table itself. The employee skill table is used to store skills possessed by employees, such as languages spoken, product expertise, and so on. For example, for an employee who speaks English and Spanish, there is one record in the employee skill table that specifies the skill name as Language. There are also two records in the child employee skill item table that correspond to this skill record: one record for English, and another record for Spanish.

For more information about how to assign skills to candidate objects, see "Scenarios for Using Siebel Assignment Manager" on page 3-4.

For example, the following procedure explains how to configure Assignment Manager so that only employees who speak Spanish are assigned a service request.

To configure Assignment Manager to assign a service request only to employees who speak Spanish

1. Create a service request with Language as the skill and Spanish as the skill item.

   a. In the Service Request skill table for the service request, create one record and specify Language as the skill.

   b. In the child Service Request skill item table, create one record and specify Spanish as the skill item.

   For more information about how to perform this step, see "Process of Defining Criteria Values as Skills with Expertise Codes and Weighting Factors" on page 5-58.

2. Create an assignment rule that filters employees based on their language skills.

   a. Create an assignment rule and apply the Service Request assignment object.

   b. Create a criterion called Language and use the Compare to Person assignment rule comparison method.

   This criterion, and therefore the rule, passes only employees who have the Spanish language skill.

   Note: You can also perform skill matching with other comparison methods. For more information about the comparison methods, see "Assignment Criteria Comparison Methods" on page 5-41.

Assignment Manager can also perform skill matching with expertise codes and can use weighting factors to assign weighted scores to different expertise codes. For more information about these topics, see "About Assignment Skills, Expertise Codes, and Weighting Factors" on page 5-54.

Assigning Objects Based on the Primary Address

An assignment rule with address criteria, by default, passes objects (Account, Contact, and Opportunities, for example) based on any one of the multiple addresses associated with the objects. However, Siebel Assignment Manager is configurable to assign based on only the primary address. This configuration is completed through Siebel Tools in the following procedure. The Account assignment object is used in this example.

Note: For Siebel Life Sciences, Assignment Manager can populate the Primary Address field for the system-assigned positions for the contacts on the intersection table (S_POSTN_CON).

To assign objects based on the primary address

1. Start Siebel Tools.

2. Select the assignment object.

   a. In the Object Explorer, expand Workflow Policy Object.

   b. In the Workflow Policy Objects list, select Account.

3. Select the workflow policy component to change the Source Column and Target Column fields.

   a. In the Object Explorer, select Workflow Policy Component.

   b. In the Workflow Policy Component window, select Account Address.

   c. Change Source Column Name to ROW_ID (from OU_ID).

   d. Change Target Column Name to PR_ADDR_ID (from ROW_ID).

4. Repeat Steps 2 and 3 for the Contact and Opportunity assignment objects.

5. Check in the projects to the server.

   For more information about checking in projects, see *Using Siebel Tools*.

6. If using dynamic assignment or workflow policies, then drop and regenerate triggers by running the Generate Triggers server component.

   For more information about stopping and restarting this server component, see "Generating Triggers for Dynamic Assignment Using the GUI" on page 9-22 or "Generating Triggers for Dynamic Assignment Using the Server Manager Command-Line Interface" on page 9-23. Alternatively, see *Siebel System Administration Guide*.

Assigning Child Accounts Based on Parent's Primary Address

A common business requirement involves the configuration of Siebel Assignment Manager to assign child accounts based on the primary account's address. This configuration is completed through Siebel Tools using the following procedure.

To assign child account objects based on the parent's primary address

1. In the Object Explorer, select the Workflow Policy object, and click the Account record.

2. Expand the Workflow Policy object in the Object Explorer, and select the Workflow Policy Components object.

3. Create two new workflow policy components, Parent Account and Parent Account Address, with the following properties.

Name	Parent Account	Parent Account Address
Source Table Name	S_ORG_EXT	S_ADDR_PER
Source Column Name	ROW_ID	ROW_ID
Target Component Name	Account	Parent Account
Target Column Name	PAR_OU_ID	PR_ADDR_ID

4. While the new Parent Account Address record is selected, expand the Workflow Policy Component object, and click the Workflow Policy Component Column object.

5. Create a new record with the following properties:

   Alias: Parent Account State

6. In the Object Explorer, select the Assignment Attributes object, and create a new record with the following properties:

Data Type: Varchar

Pick List: PickList State

Pick Field: Value

7. While the new assignment attribute Parent Account State is selected, expand the Assignment Attributes object, and click the Assignment Attributes Column object.

8. Create a new record with the following properties:

Assignment Object: Account

Workflow Object: Account

Workflow Component: Parent Account Address

Workflow Component Column: Parent Account State

Sequence: 1

9. In the Object Explorer, select the Assignment Criteria object and create a new record with the following properties:

Display Name: Parent Account State

Use Expertise: FALSE

10. While the new assignment criteria Parent Account State is selected, expand the Assignment Criteria object and click the Assignment Criteria Attribute object; create a new record with the following properties:

Assignment Attribute: Parent Account State

Store Column: 1

Display Sequence: 1

Display Name: Parent Account State

After the configurations are complete, the project must be checked into the server, and various server administration procedures must be run. To update your deployment with these new configurations, see "Viewing Predefined Skills" on page 6-15.

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

An assignment rule can now be created that assigns child accounts based on the parent's primary address.

> **Note:** Make sure that the child account has a value in the PAR_OU_ ID column pointing to a parent account that has the primary address.

Reassigning Accounts to a Different Primary Position

To reassign Account assignment objects to another position, use the following procedure. This procedure provides an example of mapping the PR_POSTN_ID column of the Account assignment object's base table (S_ORG_EXT) to a new assignment attribute named Account Primary Position. Configuration in Siebel Tools is required for this process.

> **Note:** The following procedure can be employed anytime that you want to use a base table column as an assignment attribute.

To reassign accounts to a different position

1. Start Siebel Tools.

2. In the Object Explorer, select the Workflow Column object and create a new record with the following properties:

   - Name: Account Primary Position Id
   - Table: S_ORG_EXT
   - Column: PR_POSTN_ID

3. Select Workflow Policy Object, then Account, then Workflow Policy Component, and then Account. Select an account record.

4. Drill down on the Workflow Policy Component Column and add a new record called Account Primary Position Id.

5. In the Object Explorer, select Assignment Attribute and create a new record called Account Primary Position.

6. Drill down on the Assignment Attribute Column and add a new record with the following properties:

   - Name: Account: Account Primary Position Id
   - Assignment Object: Account
   - Workflow Policy Object: Account
   - Workflow Component: Account
   - Workflow Policy Component Column: Account Primary Position Id
   - Sequence: 1

7. In the Object Explorer, select Assignment Criteria and create a new record called Account Primary Position.

8. Drill down on the Assignment Criteria Attribute and create a new record called Account Primary Position Id with the following properties:

   - Name: Account Primary Position Id
   - Assignment Attribute: Account Primary Position Id
   - Store Column: 1
   - Display Sequence: 1
   - Display Name: Id

9. Check in the project to the server, compile changes to the siebel.srf file, and distribute it to your users.

   a. Choose Tools, then Compile.

   b. In the Object Compiler dialog box, select the Assignment project.

   c. Select the Siebel client repository file (default is siebel.srf file) located in the Objects subdirectory within the Siebel client root directory.

   d. Click Compile.

10. In the updated Client, create a new assignment rule based on the assignment object Account; add a new criterion for this rule, and select the Account Primary Position; under the values applet, select the row ID of the position that you want to reassign.

11. Navigate to the Positions view of this new Assignment Rule; select the new position that is to replace the previous position.

12. Release assignment rules by clicking Release in the Assignment Rules List view.

13. Run a Batch Assignment against a test account that includes the old position; use the following parameters:

    ■ Object: Account

    ■ Object WHERE clause: `WHERE ROW_ID='`*`your_value`*`'`

14. Confirm that the test account is reassigned and then run a Batch Assignment to reassign the other accounts to the new position; use the following parameters:

    ■ Object: Account

    ■ Object WHERE clause: `WHERE PR_POSTN_ID='`*`your_value`*`'`

    ■ Thoroughly test this assignment rule before applying it to your production environment. After your accounts have been reassigned, it is recommended that you expire this rule.

15. Depending on your situation, run Contact Denormalization to update the contact access list.

    For information about running Assignment Manager in denormalization mode, see "Running Siebel Assignment Manager in Denormalization Mode" on page 9-14.

16. To set up Position in the Values applet as a picklist, select the appropriate picklist and applet when configuring the Workflow Column and Assignment Criteria Attribute for the Account Position Id.

Maintaining the Manually Assigned Primary Position

Siebel Assignment Manager maintains an object's manually assigned primary position when the Keep Manual Primary Position property in Siebel Tools for the object is set to TRUE. Assignment Manager identifies the manually assigned primary position when the PR_REP_MANL_FLG field = Y on the object. By default, the PR_REP_MANL_FLG value is set to N, which indicates that the candidate is not a manually added primary.

When the primary position is updated in the GUI, the PR_REP_MANL_FLG flag is updated to Y. If Siebel EIM imports opportunities where PR_REP_MANL_FLG=TRUE and S_OPTY.PR_POSTN_ID=NULL, then running the batch assignment in this case assigns the opportunities that sets PR_REP_MANL_FLG to FALSE. For this position to be recognized as the manually assigned primary by Assignment Manager, manually set the Primary Assignment Manual flag, that is, PR_REP_MAN_FLG, to make that position the manually assigned primary.

To maintain the object's primary position

1. Navigate to the Opportunities screen, and then the Opportunity List view (or another assignment object).

2. Query for and select the item of interest.

3. Click the Sales Team select button to launch the Team Members dialog box.

4. Click the Primary check box of another position in the list; then reselect the Primary check box of the original position and click OK.

   This process changes the system PR_REP_MANL_FLG value to Y and updates PR_REP_SYS_FLG to N.

This procedure can also be used to add positions to the object or delete system-assigned positions from the object.

About the Keep Creator Property

The purpose of the Keep Creator property is for Assignment Manager to either maintain an object's creator or delete an object's creator.

For primary position assignment:

- If the Keep Creator property in Siebel Tools for an object is set to FALSE, then Assignment Manager deletes the creator.

- If the Keep Creator property in Siebel Tools for an object is set to TRUE, then Assignment Manager maintains the object's creator, but does not delete the creator of the assignment object from the team.

Assignment Manager currently retains the existing primary position whereby it matches the current primary position of the creator. However, if the primary position of the employee is changed after the creation of the assignment object, then the original primary position is removed during the assignment. This behavior persists even when the Keep Creator property is set to TRUE.

Routing Assignments to Mobile Users

The component parameter Log txn only on change (LogTxnChgOnly) controls whether transactions with no change to Assignment primary or team members are routed to mobile or remote users. This parameter has a default setting of TRUE for Batch Assignment, for Interactive Assignment (Assignment Manager), and, implicitly, for Dynamic Assignment (Workflow Monitor Agent).

When this parameter value is TRUE, transactions with no change to the assignment primary or teams are not routed to mobile users. To change the LogTxnChgOnly parameter for dynamic assignment, use the following steps. This procedure requires configuration in Siebel Tools.

For more information about this parameter, see "Modifying the Siebel Assignment Manager Component Parameters" on page 9-3.

To route assignments to mobiles users by changing the LogTxnChgOnly parameter

1. Stop the Workflow Monitor Agent processing the assignment policies.

2. Start Siebel Tools.

   For more information about proper Siebel Tools configuration procedures, see *Configuring Siebel Business Applications*.

3. In the Object Explorer, select the Workflow Policy Program, and then select Assignment Request (In Process).

4. Drill down on Workflow Policy Program Arguments in the Object Explorer, and select the LogTxnChgOnly parameter.

5. Change the value to TRUE or FALSE.

If TRUE, then transactions with no change to the assignment primary or teams are not routed to mobile users.

6. Check in the project to the server.

7. Restart the Workflow Monitor Agent.

> **Note:** You do not have to recompile the siebel.srf file.

Stopping Assignment of the Default Organization

If you want to override the assignment of all organizations to an assignment object, then you must remove the assignment property Org Primary Column from a selected assignment object. The default value is set to BU_ID. After this value is set to NULL, Assignment Manager does not assign any organization to the assignment object. The following procedure details this configuration. The Account assignment object is used as an example.

To stop assignment of the default organization to the Account assignment object

1. Start Siebel Tools, and select the appropriate project.

2. In the Object Explorer, expand Workflow Policy Object.

3. Select Assignment Object.

4. Select the Account Record.

5. In the Properties Window, find the property called Org Primary Column.

6. Delete the value for this property. (The default value is BU_ID.)

After the assignment object is modified, various server administration procedures must be run to make sure that your configurations are recognized by Assignment Manager.

- If you are using Batch Assignment, then start a new task.

- If you are using Dynamic Assignment, then stop and restart the Workflow Monitor Agent.

- If you are using Interactive Assignment, then stop and restart the Assignment Manager server component.

> **Note:** It is not necessary to recompile the siebel.srf file when configuring an assignment object to stop assignment of the default organization.

Stopping Assignment of Organizations for Accounts

If you do not want Siebel Assignment Manager to reassign the organizations that you have set up for an account, then you must change the default property values for the Account assignment object in Siebel Tools.

> **Note:** The following procedure is also valid for other objects such as Contact and Opportunity.

To stop reassignment of organizations for accounts

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object.

3. In the Workflow Policy Object list, select Account.

4. In the Object Explorer, click Assignment Object.

5. In the Assignment Objects list, set the following values:

   ■ Default Organization = *blank*

   ■ Org Primary Column = *blank*

   ■ Org Table = *blank*

   ■ Set Primary Org = FALSE

   where *blank* is a null value.

   After these values are set, Assignment Manager does not reassign any organizations for accounts.

6. Run various server administration tasks.

   For instructions, see Steps 2 and 3 of the procedure in "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

   > **Note:** It is not necessary to recompile the siebel.srf file. However, you must check in the changes to the server database.

Setting the Lock Assignment Default Value for Activity Assignment Objects

Assignment objects contain a lock assignment feature that, when activated by checking the Lock Assignment column on the assignment object's list applet in Siebel Tools, prevents Siebel Assignment Manager from assigning or reassigning a position or candidate to that object. You can use this feature to exclude an object (such as Account or Opportunity object) from being reassigned by Assignment Manager. By setting the column defined in the Exclude Column for the assignment object, Assignment Manager excludes (ignores) the object for assignment.

The Lock Assignment parameter for activity objects is, by default, set to TRUE. This setting does not allow Assignment Manager to assign these objects. Therefore, Assignment Manager does not assign activity records.

However, the Field Service Activity object is the one exception and is, by default, available for assignment (the Lock Assignment parameter is set to FALSE). Other activity objects must have the Lock Assignment parameter set to FALSE or NULL for assignment to occur. (The lock assignment feature for activity records, except those for Siebel Field Service, defaults to *Y*.)

The behavior for the Field Service Activity object is due to a setting in the Post Default Value property for the Action business component's Assignment Excluded field (Business Component, then Field, then Assignment Excluded). The value in the property is:

```
Expr: "If ([Class] = LookupValue(""FS_ACTIVITY_CLASS"", ""Field Engineer
Activity"") OR [Class] = LookupValue (""FS_ACTIVITY_CLASS"", ""Repair Activity"")
OR [Class] = LookupValue(""FS_ACTIVITY_CLASS"", ""Preventive Maintenance""),
""N"", ""Y"")"
```

Using Siebel Tools, you can implement assignment of all types of activities by setting the default value of the Assignment Excluded field to FALSE at the business component level.

The following procedure explains how to set the Lock Assignment default value so that Assignment Manager assigns activity objects. A similar procedure can be used for other assignment objects.

To set the lock assignment default value to assign activity objects

1. Start Siebel Tools.

2. In the Object Explorer, expand the Business Component object.

3. In the Business Components list, select Action.

4. In the Object Explorer, click Field.

5. In the Fields list, select Assignment Excluded, and change the Post Default Value field to N.

6. Check in the changes to the server.

    For more information about checking in changes, see *Using Siebel Tools*.

7. Recompile the siebel.srf file.

    For more information about recompiling the siebel.srf file, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

8. Make sure that all Siebel clients that create activity records have the new siebel.srf file by copying the newly compiled siebel.srf file to:

    ■   For Siebel Server (for Siebel Web Clients), the `objects\`*language* directory, where *language* is the appropriate language code, such as ENU for U.S. English.

    ■   For Siebel Developer Web Clients, the `objects\`*language* directory, where *language* is the appropriate language code, such as ENU for U.S. English.

    Note: This step applies only to the Siebel Web Client or Developer Web Client.

Assignment Manager now assigns activity records based on the defined assignment rules.

Configuring Assignment Objects to Copy Additional Columns to the Team Table

When an item, such as an account or opportunity, is assigned to a team of people, the team field (the actual name of the field varies depending on the view) for that record shows a list of the people assigned to that item. This list of names is known as the team table for the given record. When making assignments, Siebel Assignment Manager passes information about the team members to the team table, such as the name of the person, that person's position and user ID, and so on.

This topic explains how to configure assignment objects to add additional information about team members to the team table.

Using Siebel Tools, you configure assignment objects to copy additional columns to the team table. Use the PositionTeamDenorm*N* user property (where *N* is any number) to copy additional columns from the S_ASGN_GRP_POSTN assignment rule position candidate table to the team table.

To configure an assignment object to copy additional columns to the team table

1. Start Siebel Tools.

2. Select the assignment object for which you want to copy additional columns to the team table.

    a. In the Object Explorer, expand Workflow Policy Object.

    b. In the Workflow Policy Object window, select the object.

    c. In the Object Explorer, expand Assignment Object, and then select Assignment User Prop.

3. In the Assignment User Properties window, choose Edit, then New Record, to define user properties for the assignment object.

    a. In the Name field, type a name for the property, starting with PositionTeamDenorm followed by a digit (for example, PositionTeamDenorm1, PositionTeamDenorm2).

    b. In the Value field, use the following syntax to enter values:

        SrcCol,DestCol,UserKeyBool,DefaultValue

Table 10–1 provides descriptions for each field these values.

Table 10–1   User Property Values for Copying Additional Columns to the Team Table

Value	Description
SrcCol	The name of the source column in the assignment rule group position table whose value is copied to the destination column of the team table. Source columns available for copying use Boolean, string, number, and date data types.
DestCol	The name of the destination column in the team table where the values are copied. The destination column must be one of the user data columns in the team table of the assignment object.
UserKeyBool	If this flag is set to Y (TRUE), then this indicates that the respective destination column is part of the user key of the team table. Without this flag specified, duplicate positions cannot be inserted in the team table. For more information about duplicate positions, see the description for the AllowDupPostn parameter in "Additional Information About Assignment Manager and Batch Assignment Component Parameters" on page 9-9.
DefaultValue	Specifies the values that are inserted in the destination columns if the default position is assigned. In this case, you cannot specify the values to be copied in the ASGN_GRP_POSTN table. **Note:** This value is optional if the default position is not specified. That is, if the value for a position is NULL, then the default value is set to NULL as well.

At run time, Assignment Manager copies the user property values to the team table.

Example of Copying Additional Columns to the Team Table

This topic is part of "Configuring Assignment Objects to Copy Additional Columns to the Team Table" on page 10-12.

The following procedure gives one example of copying additional columns to the team table. In this example, you copy data from the S_ASGN_GRP_POSTN rule group position table to the S_ORD_CRDT_ASGN team table of the Order (Sales Credit Assignment) assignment object.

You might use this feature differently, depending on your business model.

To configure the Order assignment object to copy the S_ORD_CRDT_ASGN column to the S_ASGN_GRP_POSTN team table

1. Start Siebel Tools.

2. Select the Order assignment object, which is the object for which you want to copy additional columns to the team table.

   a. In the Object Explorer, expand Workflow Policy Object.

   b. In the Workflow Policy Object window, select Order.

   c. In the Object Explorer, expand Assignment Object, and then select Assignment User Prop.

3. In the Assignment User Properties window, choose Edit, then New Record, to define user properties for the assignment object.

   a. In the Name field, type a name for the property, starting with PositionTeamDenorm followed by a digit (for example, PositionTeamDenorm1, PositionTeamDenorm2).

   b. In the Value field, use the following syntax to enter values (for value descriptions, see Table 10–1, " User Property Values for Copying Additional Columns to the Team Table"):

   `SrcCol,DestCol,UserKeyBool,DefaultValue`

   For this example, SrcCol copies values come from the S_ASGN_GRP_POSTN table. The following table shows some of the valid user properties for the Order (Sales Credit Assignment) assignment object.

Name	Value
PositionTeamDenorm1	DATE1,START_DT,N
PositionTeamDenorm2	CHAR2,SLS_TERR_ID,Y
PositionTeamDenorm3	CHAR1,CRDT_RULE_ID,N
PositionTeamDenorm5	CHAR3,FROM_BTM_NODE_FLG,N
PositionTeamDenorm6	NUM2,ROLLUP_PCT,N
PositionTeamDenorm8	CHAR5,ROLLUP_FRMLA,N
PositionTeamDenorm21	BOOL5,QTA_RLP_ACNTED_FLG,N

Process of Configuring Assignment Objects for Team Scoring

You can configure Siebel Assignment Manager to save candidates' scores to the team table for those candidates who are assigned to an assignment object. These scores can be then used by multiple Siebel Business Applications or exposed through the user interface.

To configure an assignment object for team scoring, perform the following tasks:

1. "Extending an Object's Base Table for Team Scoring" on page 10-15

2. "Configuring Assignment Objects for Team Scoring" on page 10-15

For an example of configuring an assignment object for team scoring, see "Example of Configuring the Opportunity Assignment Object for Team Scoring" on page 10-16.

Extending an Object's Base Table for Team Scoring

Before configuring an assignment object for team scoring, make sure that the object has the necessary columns in its database table.

This task is a step in "Process of Configuring Assignment Objects for Team Scoring" on page 10-14.

> **Note:** You must review the information about extension tables and columns in *Configuring Siebel Business Applications* before completing this procedure.

To extend an object's base table for team scoring

1. Start Siebel Tools.

2. In the Object Explorer, expand the Table object, and then query for the table that you want to configure.

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

    The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, select Column.

5. In the Columns window, choose Edit, then New Record, to add new records.

    For more information about adding new column records, see *Using Siebel Tools*.

6. Select each new record and click the Apply button.

7. Enter the appropriate value for the table owner password.

    The table is now extended.

> **Note:** There are specific considerations depending on the platform that you are using. For more information about this, see the note in Step 7 of the procedure in "Extending an Assignment Object's Base Table for Availability-Based Assignment"

After the necessary base table columns are in place, you can configure the assignment object for team scoring.

Configuring Assignment Objects for Team Scoring

After extending an assignment object's base table for team scoring (see "Extending an Object's Base Table for Team Scoring" on page 10-15), you can then configure the assignment object.

This task is a step in "Process of Configuring Assignment Objects for Team Scoring" on page 10-14.

To configure an assignment object for team scoring

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and select the object that you want to configure.

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

    The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, select Assignment Object.

5. In the Assignment Objects window, set values for the properties in the following table.

Column	Value
Employee Team Score Column	The table column that references a Number column in the assignment object's employee team table.
Org Team Score Column	The table column that references a Number column in the assignment object's organization team table.
Position Team Score Column	The table column that references a Number column in the assignment object's position team table.

For information on modifying the appropriate components that expose the scoring information to the user interface, see *Configuring Siebel Business Applications*.

Example of Configuring the Opportunity Assignment Object for Team Scoring

This topic gives one example of configuring the Opportunity assignment object for team scoring. You might use this feature differently, depending on your business model. Use the following procedures to extend the Opportunity assignment object for team scoring.

This topic is part of "Process of Configuring Assignment Objects for Team Scoring" on page 10-14.

Extending the Opportunity Assignment Object's Base Table for Team Scoring

Use the following procedure to extend the Opportunity assignment object's base table for team scoring.

To extend the Opportunity object's base table for team scoring

1. Start Siebel Tools.

2. In the Object Explorer, expand the Table object, and then query for the S_OPTY table.

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

    The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, select Column.

5. In the Columns window, add the records shown in the following table.

Property	Record 1	Record 2
Name	X_POS_SCORE	X_ORG_SCORE
Cascade Clear	Ignore	Ignore
Physical Type	Data(Public)	Data(Public)
Precision	22	22
Scale	7	7
Text Length	22	22
Txn Log Code	TRUE	TRUE

> **Note:** The values and records shown are examples and can be modified, as appropriate, for your deployment.

6. Select each new record and click the Apply button.

7. In the Apply Schema dialog box, enter the appropriate value for database user password, and click Apply.

   The S_OPTY table is now extended with the following columns: X_POS_SCORE and X_ORG_SCORE.

Configuring the Opportunity Assignment Object for Team Scoring

Use the following procedure to configure the Opportunity assignment object for team scoring.

To configure the Opportunity assignment object for team scoring

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and select the Opportunity object.

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, select Assignment Object.

5. In the Assignment Objects window, set values for the properties in the following table.

Column	Value
Employee Team Score Column	The name of the column that stores the score for each member of an employee team.
Org Team Score Column	The name of the column that stores the score for each member of an organization team.
Position Team Score Column	The name of the column that stores the score for each member of a position.

About Configuring Siebel Assignment Manager to Copy Columns

Siebel Assignment Manager allows you to copy position- and employee-specific columnar data so that you can replace one position or employee with another and have the position or employee data stay intact. For example, you might have a sales representative who has been working on an account or contact for several days but find that you need another person to take on that work.

To enable this feature, first configure an assignment object's user properties so that Assignment Manager can find the lists of columns in the position or employee team tables. Then, you submit a component job request so that Assignment Manager retains the position- or employee-specific data in the team table for the new person. During assignment processing, the data from one position (or employee) is copied to the extension columns for the new position (or employee) before deleting the original position (or employee).

The logic that Assignment Manager uses to copy position- or employee-specific data is as follows:

1. Checks to see whether the position or employee already exists in the account team.

   ■ If yes, then do nothing

   ■ If no, then skip to Step 2

2. Searches to find one of the following:

   ■ Any positions with position-specific data for the same rule group (or list of rule groups when merging sales forces) on the team.

   ■ Any employees with employee-specific data for the same rule group on the team.

3. If:

   ■ No, then do nothing

   ■ Yes, then do one of the following:

      – Find the position record that has the latest updated position-specific data, copy that position's data, and assign it to the new position

      – Find the employee record has the lasted updated employee-specific data, copy that employee's data, and assign it to the new employee

Process of Configuring Siebel Assignment Manager to Copy Columns

This topic is part of "About Configuring Siebel Assignment Manager to Copy Columns" on page 10-18.

By default, the TM Account assignment object is configured to copy columnar position or employee data. However, you can make this feature available for other assignment objects by configuring user properties using Siebel Tools, then initiating a server component job to process the information.

To copy columns for positions or employees, perform the following tasks:

1. "Configuring Assignment Objects to Copy Columns" on page 10-19

2. Copying columns, by doing one of the following:

   ■ "Copying Columns Using the GUI" on page 10-20

   ■ "Copying Columns Using the Server Manager Command-Line Interface" on page 10-21

Configuring Assignment Objects to Copy Columns

Using Siebel Tools, you can configure assignment objects to copy position-specific or employee-specific data. Typically, you configure sales objects to copy position-specific data and you configure service objects to copy employee-specific data.

This task is a step in "Process of Configuring Siebel Assignment Manager to Copy Columns" on page 10-18.

By default, the TM Account assignment object is predefined to copy position-specific data. Figure 10–1 shows the TM Account assignment object configured to copy only a single column, ROLE_CD.

Figure 10–1   The TM Account Assignment Object Configured to Copy Position-Specific Data
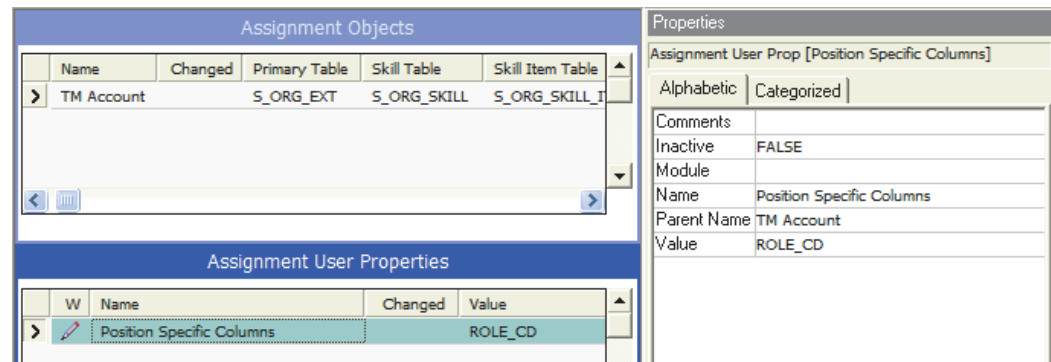
Use the following procedure to add either the Position Specific Columns or Employee Specific Columns user property to an assignment object for which you want to enable copying of data.

To configure an assignment object to copy position- or employee-specific data

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and then query for the object that you want to configure.

    > **Tip:**   If Workflow Policy Object is not visible in the Object Explorer, then you can enable it by selecting View, then Options, then Object Explorer in the Development Tools Options dialog box.

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

    The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, expand Assignment Object, and then select Assignment User Prop.

5. In the Assignment User Properties window, choose Edit, then New Record.

6. In the new record, enter values for the relevant information.

    ■   In the Name field, type either `Position Specific Columns` or `Employee Specific Columns`.

    ■   In the Value field, type the names of the columns that you want copied.

For example, if you want to copy multiple columns, then type: ROLE_CD, ROW_ ID.

- In the Inactive field, click the drop-down arrow, and select FALSE.

After the assignment object is modified, you must run various server administration procedures to make sure that your configurations are recognized by Assignment Manager.

- If you are using Batch Assignment, then start a new task.

- If you are using Dynamic Assignment, then stop and restart the Workflow Monitor Agent.

- If you are using Interactive Assignment, then stop and restart the Assignment Manager server component.

After the assignment object is configured, you can then instruct Assignment Manager to copy position- or employee-specific data using the GUI or by submitting a server component job from the Server Manager command-line interface (srvrmgr).

Copying Columns Using the GUI

You can set up Siebel Assignment Manager to copy columnar position or employee data using the graphical user interface (GUI) or by submitting a server component job from the Server Manager command-line interface (srvrmgr). This topic explains how to copy columns using the GUI.

This task is a step in "Process of Configuring Siebel Assignment Manager to Copy Columns" on page 10-18.

Requirements

The following procedure assumes that the Position Specific Columns and Employee Specific Columns properties are preconfigured for the assignment object and the Copy Candidate Specific Data (CopyCandSpecData) parameter is set to Yes. For information about how to configure these properties and this parameter, see "Configuring Assignment Object Properties" on page 6-8 and "Modifying the Siebel Assignment Manager Component Parameters" on page 9-3, respectively.

To copy columns using the GUI

1. Navigate to the Administration - Server Management screen, and then the Jobs view.

2. In the Jobs list, click New.

    A new record appears with a system-defined ID automatically generated with a status of Creating.

3. In the Requested Server field in the Job Detail subview, type the name of the Siebel Server on which you want to run the copy columns feature.

    > **Note:** Assignment Manager copies position- or employee-specific data only if the Use Key Value parameter value is set to either Rule Group or None. If None, then position-specific data is copied from any position in the ACCNT_POSTN table that was updated last, given every position in the team is for the same business reason.

> **Tip:** When merging sales forces in production mode, Assignment Manager takes into account the list of key values, that is, Assignment Manager gets the latest updated position in all the rule groups in the Replace Key Values list with position-specific data.

Copying Columns Using the Server Manager Command-Line Interface

After configuring an assignment object to copy columns, Siebel Assignment Manager can copy columnar position- and employee-specific data by initiating an Assignment Manager (AsgnSrvr) server component job from the Server Manager command-line interface (srvrmgr), using parameters described in Table 9–1.

This task is a step in "Process of Configuring Siebel Assignment Manager to Copy Columns" on page 10-18.

For more information about using the Server Manager command-line interface, see *Siebel System Administration Guide*.

To copy columns using the Server Manager command-line interface

- From the Server Manager command-line interface, submit an assignment request using the CopyCandSpecData parameter to instruct Assignment Manager to retain the position- or employee-specific data in the team table.

  For example:

  - ```
    start task for comp asgnbatch with asgnobjname="Account",
    objwhereclause="where row_id='88-1FC68'", CopyCandSpecData="Y"
    ```

  - ```
    start task for comp asgnsrvr with asgnobjname="Account",
    objwhereclause="where row_id='88-1FC68'", CopyCandSpecData="Y"
    ```

Configuring Siebel Assignment Manager to Use Reporting Tables and Columns

Siebel Assignment Manager provides a special set of tables to which you can write assignment results for what-if analysis. These tables are known as reporting tables, and the environment in which you work with these tables is known as the reporting environment. When you work in the reporting environment, you work in reporting mode.

By default, reporting mode is turned off; Assignment Manager does not write to the reporting tables. Using Siebel Tools, you can configure Assignment Manager to use reporting tables and columns (in lieu of actual assignment tables) by defining Assignment Object and Assignment Object Extension object properties.

> **Note:** You can retrieve reporting mode table data by using native database utilities, such as SQL*Plus, Query Analyzer, and so on. Do not modify or delete this data. Rather, assignment administrators use the reporting tables to preview the temporary reporting results before executing Assignment Manager in actual production tables.

About Reporting Tables

You can think of the reporting tables as temporary draft tables that allow you to preview the results of Assignment Manager processing to see the changes that are going to be made before committing those changes to the actual database. Reporting

allows you to run Assignment Manager multiple times without impacting current assignments. Assignment Manager can write to the reporting tables independently of whether results are written to actual assignment tables or not.

The reporting tables are especially useful when you want to filter and operate on a subset of candidates.

About Reporting Mode

When merging records in reporting mode, Assignment Manager runs in one of the following modes:

- **Snapshot mode.** Assignment Manager reads from and writes to the reporting team tables only.

  Running in snapshot mode is similar to running in production mode, except that the result tables are different. Assignment Manager stores the results tables in the Assignment Object Extension object in Siebel Tools. In snapshot mode, the reporting team tables store a snapshot of the results.

- **Delta mode.** Assignment Manager reads from the current actual assignments but writes to the reporting team tables.

  In delta mode, Assignment Manager stores the delta as compared with current actual assignments to the reporting tables. Assignment Manager also stores the delta information about whether a particular candidate was added or dropped, as compared with the same account or contact in actual assignments. You can later use this information to run reports.

  > **Note:** The values in the Assignment Object Extension object properties determine what columns are used to determine which candidates were added or dropped, which tables to use for reporting, which column to use as the key column, and which columns to use as the position, employee, or organization column.

Reporting mode is supported in default mode, that is, when Assignment Manager operates on one rule group at a time.

To configure an assignment object to use reporting tables and columns

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and in the Workflow Policy Objects list, query for the object for which you want to enable reporting tables and columns.

   > **Tip:** If Workflow Policy Object is not visible in the Object Explorer, then you can enable it by selecting View, then Options, then Object Explorer in the Development Tools Options dialog box.

3. Lock the project for the object by choosing Tools, then Lock Project (or Alt+L).

   The pencil icon appears in the W field to indicate that the project for the object is locked.

4. In the Object Explorer, select Assignment Object Extension.

5. In the Assignment Object Extensions list, choose Edit, then New Record, and then click in the available fields to enter relevant information.

Table 10–2 shows some of the properties of the Assignment Object Extension object type.

Note: There are no predefined Siebel tables for the Position Reporting, Org Reporting, and Employee Reporting properties listed in Table 10–2. Customers must decide which tables to use, and create them manually.

Table 10–2   Properties of Assignment Object Extension

Property	Description
Name	The name of the assignment object extension, matching the assignment object name.
Inactive	Indicates whether the object extension is active or inactive. By default, this is set to FALSE.
Position Reporting Table	The name of the position reporting intersection table. If the assignment object can be assigned to multiple positions, then this intersection table stores the set of position IDs that are assigned to the assignment object IDs.
Position Reporting Column	The name of the column in the position reporting intersection table that points to rows in the S_POSTN position table. Required if Position Table property is non-NULL.
Position Reporting Insertion Column	This column marks the positions that are added to the team. Applicable in both snapshot and delta reporting modes.
Position Reporting Deletion Column	This column marks the positions that are removed from the team. Applicable in both snapshot and delta reporting modes.
Position Reporting Key Column	Stores the key values of the positions assigned to the team at run time. **Note:** The UseKeyVal parameter must also be set to TRUE.
Employee Reporting Table	The name of the employee reporting intersection table. If the assignment object can be assigned to multiple employees, then this intersection table stores the set of employee IDs that are assigned to the assignment object IDs.
Employee Reporting Column	The name of the employee reporting intersection table that points to rows in the S_POSTN position table. Required if the Employee Table property is non-NULL.
Employee Reporting Insertion Column	This column marks the employees that are added to the team. Applicable in both snapshot and delta reporting modes.
Employee Reporting Deletion Column	This column marks the employees that are removed from the team. Applicable in both snapshot and delta reporting modes.
Employee Reporting Key Column	Stores the key values of the employees assigned to the team at run time. **Note:** The UseKeyVal parameter must also be set to TRUE.
Org Reporting Table	The name of the organization reporting intersection table. If the assignment object can be assigned to multiple organizations, then this intersection table stores the set of organization IDs that are assigned to the assignment object IDs.

Table 10–2 (Cont.) Properties of Assignment Object Extension

Property	Description
Org Reporting Column	The name of the organization reporting intersection table that points to rows in the S_POSTN position table.
	Required if Organization Table property is non-NULL.
Org Reporting Insertion Column	This column marks the organizations that are added to the team. Applicable in both snapshot and delta reporting modes.
Org Reporting Deletion Column	This column marks the organizations that are removed from the team. Applicable in both snapshot and delta reporting modes.
Org Reporting Key Column	Stores the key values of the organizations assigned to the team at run time.
	Note: The UseKeyVal parameter must also be set to TRUE.

Configuring Assignment Objects for Multitiered Assignment

By default, Siebel Assignment Manager independently matches people and organizations to assignment objects. Activating Assignment Manager to use multitiered assignment, however, allows assignments based on the relationship between a person and their organization or an organization and its people.

Note: Without multitiered assignment (or appropriate assignment rules), it is possible for Assignment Manager to assign an unrelated organization or person to an assignment object.

Table 10–2 shows the multitiered assignment modes.

Note: Multitiered filtering (employed in multitiered assignment) does not decide who ultimately is assigned, or who is made the primary assignee. Multitiered assignment filters organizations or people who cannot be assigned, and in the process identifies the organizations or people who can be assigned. Assignment is then decided by which organization or person has the highest score.

Table 10–3 Multitiered Assignment Modes

Multitier Mode	Description
Independent	Assigns people and organizations that qualify, regardless of whether they are related or not.
Person-Oriented	Assigns people that qualify, then assigns only qualified organizations that the assigned people belong to.
Organization-Oriented	Assigns organizations that qualify, then assigns qualified people from those organizations.
Organization and Person-Oriented	Identifies qualified people and organizations, then assigns only those that have both a qualified person and related qualified organization.

> **Note:**   Inconsistencies can occur when the Organization and
> Person-Oriented mode is used with assignment rules that use the *One,*
> *Best Fit* assignee filter. The *One, Best Fit* assignee filter assigns only the
> highest-scoring position or organization. If the highest-scoring
> position does not have a qualifying organization, or if the
> highest-scoring organization does not have a qualifying position, then
> the object remains unassigned, even if a lower-scoring position and its
> related organization both qualify for the assignment rule.

> **Caution:**   Use caution when the Person-Oriented,
> Organization-Oriented, and Organization and Person-Oriented modes
> are used with assignment rules that use a combination of assignee and
> multitiered filters, because inconsistencies can occur. Potential
> problems can occur with either organization or position not being
> assigned when you are using *One, Random* and *One, Best fit* assignee
> filters with the Person-Oriented, Organization-Oriented, and
> Organization and Person-Oriented modes. Problems can occur
> because, based on the assignment methodology, the assignee filter is
> applied first independently to both the Position and Organization
> candidates. Then, the resulting Positions and Organizations that pass
> are further filtered through the multitiered filter, which might or
> might not produce a match between Position and Organization for
> Person-Oriented, Organization-Oriented, and Organization and
> Person-Oriented modes.

You use Siebel Tools to activate multitiered assignment by setting the Assignment
Mode property for an assignment object.

> **Note:**   Do not configure multitiered assignment to assign people and
> corresponding organizations when running interactive assignment.
> The reason for this is that, when using interactive assignment, you
> manually choose assignees and only the person *or* the organization
> candidates are shown, not both.

To configure an assignment object for multitiered assignment

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object, and in the Workflow
    Policy Objects list, query for the assignment object for which you want to enable
    multitiered assignment.

    > **Tip:**   If Workflow Policy Object is not visible in the Object Explorer,
    > then you can enable it by selecting View, then Options, then Object
    > Explorer in the Development Tools Options dialog box.

3. In the Object Explorer, select Assignment Object.

4. Lock the project for the assignment object by choosing Tools, then Lock Project (or
    Alt+L).

The pencil icon appears in the W field to indicate that the project for the object is locked.

5. For the assignment object, change the Assignment Mode property to the multitiered assignment mode operation of interest.

   Choices are: Independent, Org & Person-oriented, Organization-oriented, and Person-oriented.

Scenarios for Using Multitiered Assignment with Sales Assignment Rules

This topic gives one example of how multitiered assignment can be used with sales assignment rules. You might use multitiered assignment differently, depending on your business model.

Multitiered assignment is a logical assignment feature that considers the relationships between people and organizations before assigning an object, which makes this feature well-suited to sales organizations. To activate multitiered assignment, you must first use Siebel Tools to configure assignment objects. Then, after assignment objects are configured, multitiered assignment can function in various modes.

The following scenarios show how multitiered assignment functions in various modes. Each scenario is based on the same sales opportunity and the same assignment rules.

Independent Assignment

If multitiered assignment is disabled, then Assignment Manager assigns the object independently, resulting in the following scenario:

- All people and organizations not matching assignment rule criteria are filtered out.

- For each person who matches the assignment rule criteria, assign that person to the object.

- For each organization that matches the assignment rule criteria, assign that organization to the object.

- The European and Asian sales representatives independently are assigned to the same opportunity as well as the Europe and North America organizations, as shown in Table 10–8.

Table 10–4   Example Matching for Independent Assignment

Person	Match	Organization	Match	Assigned Person	Assigned Organization
European Sales Representative	Yes	Europe	Yes	European Sales Representative	Europe
North American Sales Representative	No	North America	Yes	Not applicable	North America
Asian Sales Representative	Yes	Asia	No	Asian Sales Representative	Not applicable

Figure 10–2 illustrates assignment in Independent mode, where qualified people and organizations are assigned, regardless of whether they are related.

Figure 10–2   Example of Independent Assignment
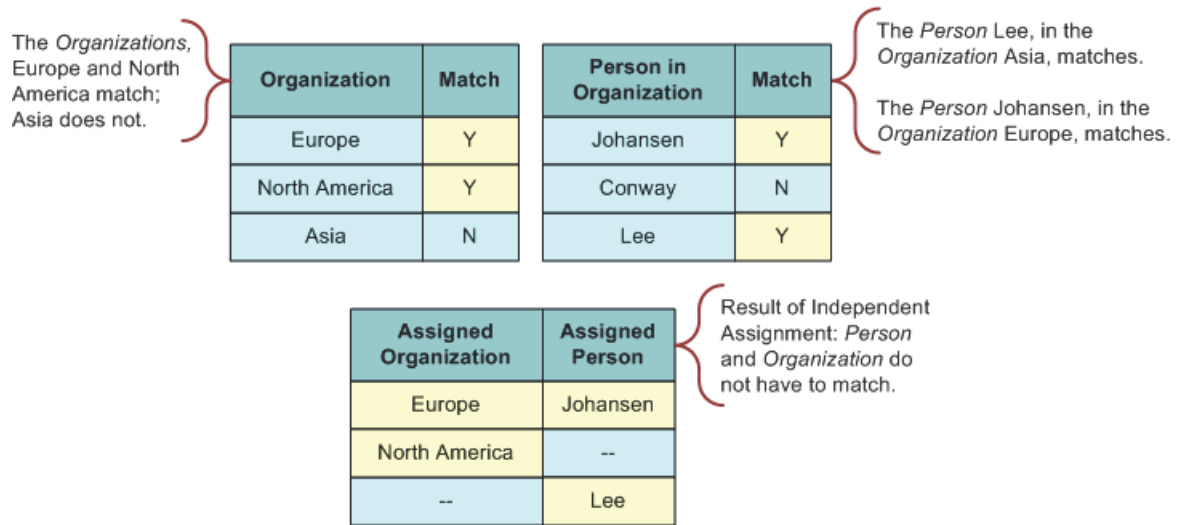
Person-Oriented Assignment

If multitiered assignment is set to Person-Oriented mode, then the following situation occurs:

- All organizations and people not matching assignment rule criteria are filtered out.

- For each person who matches the assignment rule criteria, assign that person to the object.

- Evaluate organization candidates for the assigned people's organizations. If the organization matches, then assign that organization to the object.

- The European and Asian sales representatives are assigned, but only the Europe organization is assigned, as shown in Table 10–5.

Table 10–5   Example Matching for Person-Oriented Assignment

Person	Match	Organization	Match	Assigned Person	Assigned Organization
European Sales Representative	Yes	Europe	Yes	European Sales Representative	Europe
North American Sales Representative	No	North America	Yes	Not applicable	Not applicable
Asian Sales Representative	Yes	Asia	No	Asian Sales Representative	Not applicable

Figure 10–3 illustrates assignment in Person-Oriented mode, where qualified people are assigned first, and then the qualified organizations that the assigned people belong to are assigned.

Figure 10–3   Example of Person-Oriented Assignment
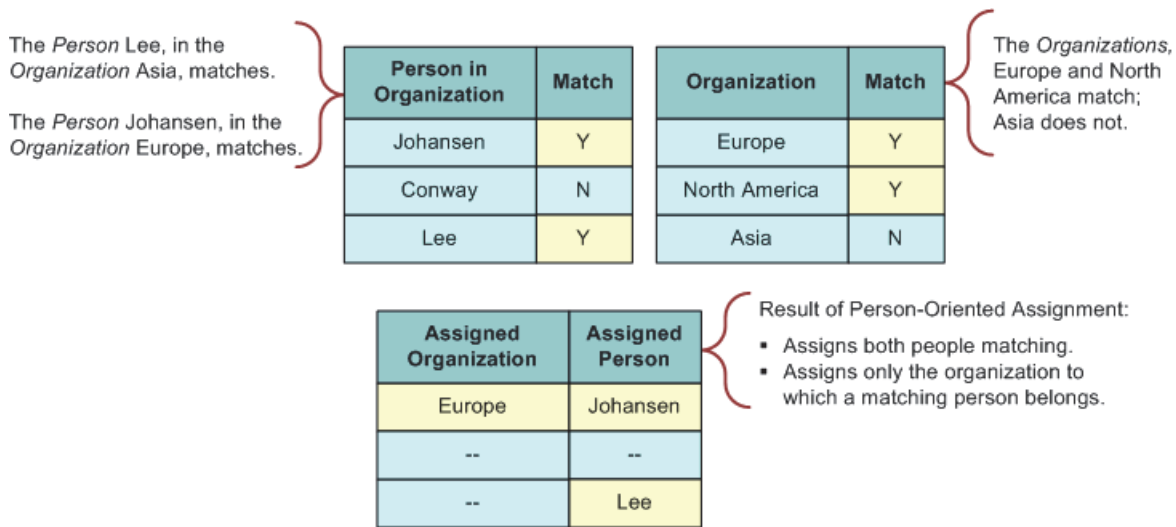
Organization-Oriented Assignment

If multitiered assignment is set to Organization-Oriented mode, then the following situation occurs:

- All organizations and people not matching the assignment rule criteria are filtered out.

- For each organization that matches, assign it to the object.

- Evaluate each person candidate for the assigned organization's people. If a person matches, then assign that person to the object.

- The Europe and North America organization are assigned, but only the European Sales Representative is assigned, as shown in Table 10–6.

Table 10–6   Example Matching for Organization-Oriented Assignment

Person	Match	Organization	Match	Assigned Person	Assigned Organization
European Sales Representative	Yes	Europe	Yes	European Sales Representative	Europe
North American Sales Representative	No	North America	Yes	Not applicable	North America
Asian Sales Representative	Yes	Asia	No	Not applicable	Not applicable

Figure 10–4 illustrates assignment in Organization-Oriented mode, where qualified organizations are assigned first, and then the qualified people from those organizations are assigned.

Figure 10–4   Example of Organization-Oriented Assignment
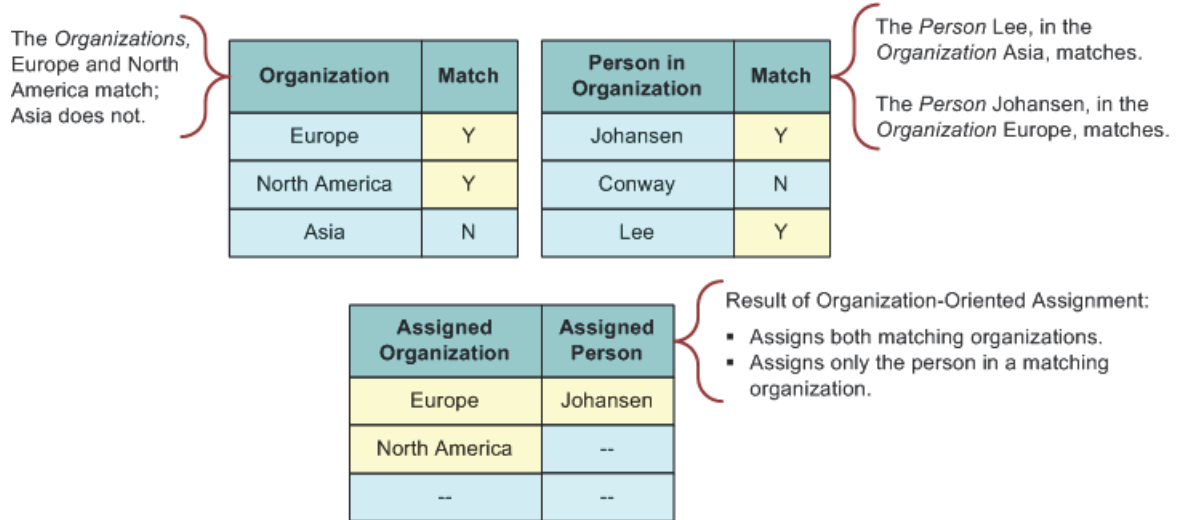
Organization and Person-Oriented Assignment

If multitiered assignment is set to Organization and Person-Oriented mode, then the following situation occurs:

- All organizations and people not matching the assignment rule criteria are filtered out.

- For people and organizations that satisfy the assignment rule criteria, assign only those that have both a corresponding organization and person that meet the criteria (similar to a logical AND statement).

- Only the European Sales Representative and the Europe organization are assigned, as shown in Table 10–7.

Table 10–7   Example Matching for Organization and Person-Oriented Assignment

Person	Match	Organization	Match	Assigned Person	Assigned Organization
European Sales Representative	Yes	Europe	Yes	European Sales Representative	Europe
North American Sales Representative	No	North America	Yes	Not applicable	Not applicable
Asian Sales Representative	Yes	Asia	No	Not applicable	Not applicable

Figure 10–5 illustrates assignment in Organization and Person-Oriented mode, where qualified people and organizations are identified first, and then only those that have both a qualified person and related qualified organization are assigned.

Figure 10–5   Example of Organization and Person-Oriented Assignment
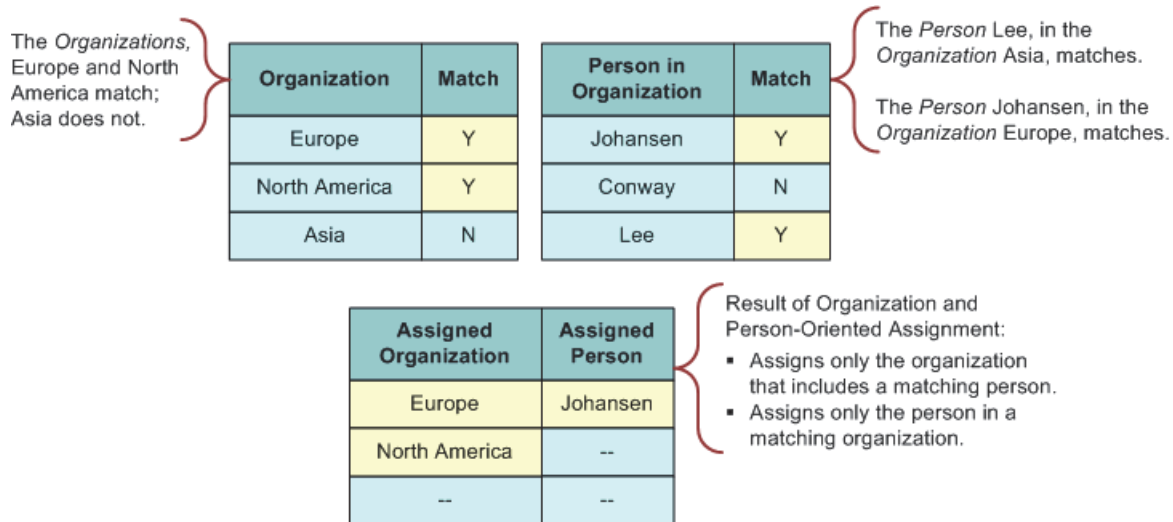
Configuring Siebel Assignment Manager to Add Scores Across Rules

You can configure Siebel Assignment Manager so that the same candidate (employee, position, or organization) can qualify from different assignment rules with different scores. By default, Assignment Manager treats passing candidates from different rules as if they were different candidates. However, it is possible for Assignment Manager to merge (add) the scores for the same candidate across rules and take the total score in the calculation of the primaries.

How you configure Assignment Manager to add scores across rules differs for each operating mode. You specify the Add scores across Rules (AddScores) parameter to determine Assignment Manager scoring behavior by way of the:

- Assignment Manager (AsgnSrvr) component for interactive assignment

- Batch Assignment (AsgnBatch) component for batch assignment

- Assignment Request (In Process) workflow policy program for dynamic assignment

The information that follows describes configuration for each mode in detail.

> **Note:** The AddScores parameter is applicable to static and dynamic candidates, but only if no rules are marked as exclusive. That is because you explicitly define the rule from which you want the primaries to come for exclusive rules.

Adding Scores Across Rules for Interactive Assignment

If you set the AddScores component parameter to TRUE, then all requests sent to AsgnSrvr add scores for the candidates. However, when interactive assignment is used, the <Assign> menu method by default sets AddScores to FALSE, and subsequently passes AddScores = FALSE to the AsgnSrvr task. To override this behavior so that interactive assignment passes AddScores = TRUE for the assignment, you must add a user property to the respective business component on which interactive assignment is running.

Alternatively, for requests sent to AsgnSrvr using a script or the Server Request business service, you can pass AddScores = TRUE as an input parameter to the AsgnSrvr task.

To configure Assignment Manager to add scores across rules for interactive assignment

1. Start Siebel Tools.

2. Configure the Action business component to add scores across rules.

   a. In the Object Explorer, expand Business Component.

   b. In the Business Components list, select Action.

   c. Choose Tools, then Lock Project (or Alt+L), to lock the project.

   d. In the Object Explorer, click Business Component User Prop, and add a new record with the following information:

      – Name = AddScores

      – Value = TRUE

3. Check in the changes to the server.

   For more information about checking in changes, see *Using Siebel Tools*.

4. Compile the siebel.srf file.

   For more information about recompiling the siebel.srf file, see "Updating Your Siebel Assignment Manager Deployment with New Configurations" on page 6-34.

5. Make sure that all Siebel clients that create activity records have the new siebel.srf file by copying the newly compiled siebel.srf file to:

   ■ For the Siebel Server (for Siebel Web Clients), the objects*language* directory, where *language* is the appropriate language code, such as ENU for U.S. English.

   ■ For Siebel Developer Web Clients, the objects*language* directory, where *language* is the appropriate language code, such as ENU for U.S. English.

   Note: This step applies only to the Siebel Web Client or Developer Web Client.

This procedure allows control of AddScores = TRUE for interactive assignment based on the object being assigned.

Adding Scores Across Rules for Batch Assignment

If you set the AddScores component parameter to TRUE, then all tasks for batch assignment add the scores across rules for the candidates. Alternatively, you can also set Add Scores across Rules = TRUE at the task-level when starting a batch assignment task. For more information about running batch assignment, see "Running Batch Assignment" on page 9-28.

Adding Scores Across Rules for Dynamic Assignment

To add scores across rules for dynamic assignment, you must set the Add Scores program argument to TRUE for the Assignment Request (In Process) workflow policy program.

To configure Assignment Manager to add scores across rules for dynamic assignment

1. Start Siebel Tools.

2. Configure the Assignment Request (In Process) workflow policy program to add scores across rules.

   a. In the Object Explorer, expand Workflow Policy Program.

   b. In the Workflow Policy Programs list, select Assignment Request (In Process).

   c. Choose Tools, then Lock Project (or Alt+L), to lock the project.

   d. In the Object Explorer, click Workflow Policy Program Arg, select AddScores, and change the Default Value to TRUE.

3. Check in the changes to the server.

How the AddScores Parameter Affects Primaries

By default, if an assignment rule has a primary employee, primary position, or primary organization set, and one of these passes, then it is assigned as the primary if that rule passes and is the highest scoring rule for that object. However, if the AddScores parameter is set to TRUE, then the primaries are ignored because the AddScores parameter overrides the primaries on the rule. The AddScores parameter assigns the highest-scoring employee, position, or organization across all the rules that pass for that object, and has more weight than the primaries.

For example, assume that you have two rules (Rule 1 and Rule 2) that pass for a specific Account Z. Each rule has two positions that qualify, with scores as shown in Table 10–8.

Table 10–8   Example of Effect on Scoring of AddScores Parameter

Rule	Position A Score	Position B Score
Rule 1	100	120
Rule 2	50	20
Both rules combined	150	140

If the AddScores parameter is not applied (set to FALSE), then Position B is the highest-scoring position, with a score of 120, and becomes the primary. However, if AddScores is set to TRUE, then Position A, with a score of 150, is the highest-scoring position and becomes the primary.

11

Availability-Based Assignment

This chapter describes how to make availability-based assignments in Siebel Assignment Manager. It includes the following topics:

About Availability-Based Assignment

Siebel Assignment Manager has the ability to assign employees based on their calendar availability and can find out whether candidates are working at the required time, and whether their calendar is free, before assigning an item to a candidate or team. This feature is used on employee-based assignment objects only, and requires the installation and licensing of the Siebel Field Service option, because it depends on the Appointment Booking System (ABS) in Siebel Field Service to check employee availability.

However, availability-based assignment is not limited to use in the Field Service application, and can be used in any application that has employee-based objects. In general, this feature is meant for use with employee-based objects that have an associated time duration, such as activities and service requests.

To use this feature, certain properties of the assignment object require configuration in Siebel Tools. The Activity assignment object is, by default, partially preconfigured for use with availability assignment; the Service Request assignment object, however, is not. Both of these assignment objects require configuration in Siebel Tools to activate availability-based assignment. For more information about these procedures, see "Process of Configuring Assignment Objects for Availability-Based Assignment" on page 11-4. Assignment Manager can also be configured to create an activity in the calendar of the candidate assigned to the object.

After an object is configured for availability-based assignment, an assignment rule activates this feature by means of a check box on the Assignment Rule detail applet. You can further customize Assignment Manager for availability-based assignment, by configuring assignment object user properties.

About Assigning Employees to Assignment Rules Based on Availability

You can create assignment rules for employee-based objects using availability-based assignment, which allows Siebel Assignment Manager to check an employee's calendar and to consider the employee's availability when determining assignment eligibility. Assignment objects must be preconfigured before using the assignment availability criteria feature.

When an assignment object is configured for availability, a user specifies the following three times for the assignment object:

- **Early Start Time.** (Optional) The earliest time the assignment object can be scheduled (specified in the Calendar Early Start Time Column property of the assignment object).

  If this time is specified, then Assignment Manager looks for an available slot for the specified duration in the employees' schedules with the starting time anywhere between the Early Start Time and the Start Time. If this time is not specified, then it defaults to the Must Start Time, which means that Assignment Manager looks for an available slot for the specified duration starting exactly at the start time.

- **Latest Start Time.** The latest time the assignment object can be started (specified in the Calendar Start Time Column property of the assignment object).

- **Duration.** The time in minutes required to finish the assignment object's task (specified in the Calendar Duration Column property of the assignment object).

Each of these times is accessed by Assignment Manager when determining the availability of an employee. Assignment Manager then uses the availability information like other criteria when evaluating employees for the assignment object.

Note: If the Calendar Early Start Time Column is not defined, but the Calendar Start Time Column is defined, then the Appointment Booking System checks to see whether employees are available or not at the exact Calendar Start Time. If both columns are defined, then the Appointment Booking System checks to see whether employees are available or not during the period from Calendar Early Start Time Column to Calendar Start Time Column. For more information about the Appointment Booking System, see *Siebel Field Service Guide*.

Assignment Manager can also be configured to add an activity to the calendar of the employee who is assigned the assignment object. For example, if a service request is created with times indicating a service duration of four hours, then Assignment Manager evaluates the object's times and employees' schedules, and selects only employees who are available for the four hours indicated by the service object. Assignment Manager then selects the highest-scoring employee available and creates an activity for the employee (if the object is configured to assign activities). Employees can manually insert activities into their calendar to block assignments during specific periods. Similarly, an employee can delete activities created by the original assignment so further assignments can be made.

Assignment Manager functions for both single employees and teams. If an object is assigned to a team, then every employee within the team is assigned an activity for the duration of the assignment (if the object is configured to assign activities). Assignment Manager can assign activities for the same object at different times based on the

calendars of individual team members. A calendar activity, however, cannot be split up across multiple dates and times.

When administrators define a new rule, selecting the Check Employee Calendar box activates the assignment availability criteria.

How Siebel Assignment Manager Creates Activities for Employees During Availability-Based Assignment

If an assignment rule has the Check Employee Calendar flag checked, then availability for each employee is evaluated before assignment. If the Calendar Create Activity property is also set for the assignment object, then make sure that an activity exists in the employee's calendar for that duration to block the schedule. Figure 11–1 shows a high-level flowchart of this process.

Figure 11–1   High-Level Flowchart of Availability-Based Assignment
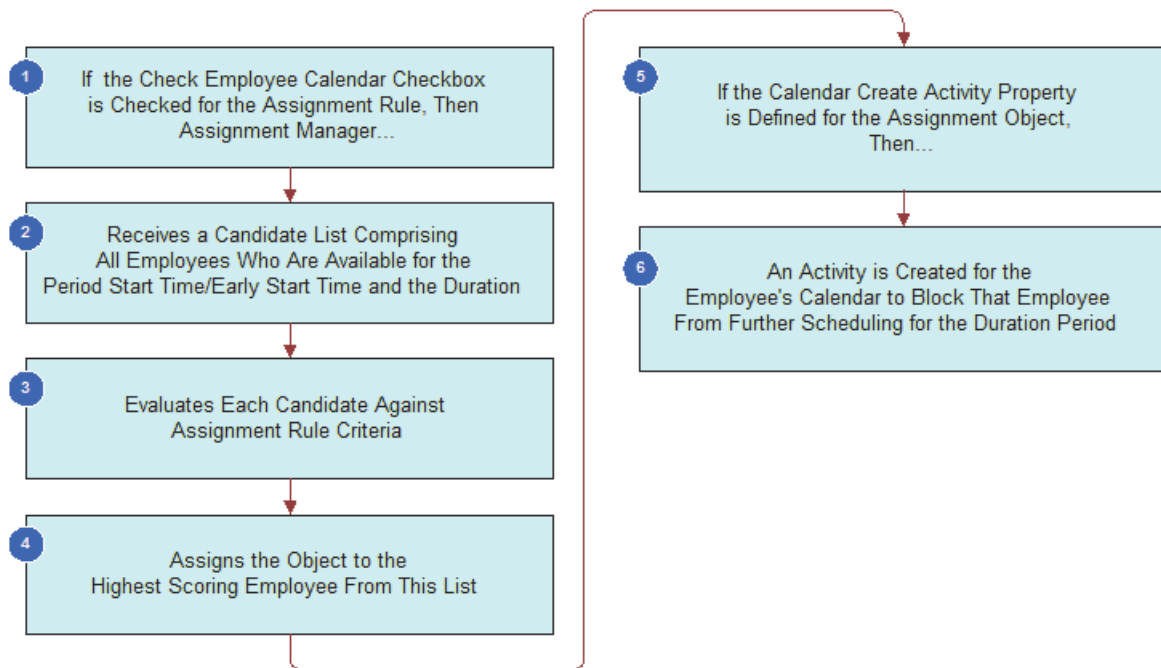
Assignment Manager evaluates whether the Check Employee Calendar flag is checked (calendar rules) or not (noncalendar rules) and processes the rules differently based on this indication. If Assignment Manager is assigning activities, and if only one employee passes and that employee is from a calendar rule, then the original activity is reused and the employee is added to the owners list for that activity. This action blocks the employee's schedule. If more than one employee passes, then separate activities are created for each employee. In this case, the parent activity of all these additional activities is set to the original activity to make sure that all are related to each other.

If Assignment Manager is not assigning activities, then separate activities are created for each employee who passes and blocks their schedules.

Process of Configuring Assignment Objects for Availability-Based Assignment

When you configure assignment objects for availability-based assignment, Siebel Assignment Manager can review an employee's calendar as a criterion for assignment. If the employee's calendar has no activities booked at the time required by the object, and has a sufficient time period available for the object's duration, then the employee qualifies for assignment.

Requirements

Before configuring the assignment object, make sure that the following information is satisfied:

- The Field Service component group is enabled.

  For more information about the Field Service component group, see *Siebel System Administration Guide*.

- A mapping of the server to the Field Service components and region exists.

  For more information about Field Service components and regions, see *Siebel Field Service Guide*.

- Employees are associated with service regions.

  For more information about Field Service regions, see *Siebel Field Service Guide*.

- The object that you are configuring for assignment availability has the necessary columns in its database table.

  For more information about configuring for availability, see "Extending an Assignment Object's Base Table for Availability-Based Assignment" on page 11-4.

By default, the Activity assignment object has the required columns in its database table for Start Time and Duration; however, one column must be extended if the Early Start Time property is desired. All other assignment objects must have their base tables extended if you want them enabled for availability-based assignment.

To configure assignment objects for availability-based assignment, you must perform the following tasks:

1. "Extending an Assignment Object's Base Table for Availability-Based Assignment" on page 11-4

2. "Configuring Assignment Object Properties for Availability-Based Assignment" on page 11-6

3. "Configuring Assignment Object User Properties for Availability-Based Assignment" on page 11-8

> **Note:** It is recommended that you review the topics on extension tables and columns in *Configuring Siebel Business Applications* before completing this process.

Extending an Assignment Object's Base Table for Availability-Based Assignment

Using Siebel Tools, you extend an assignment object's base table for availability-based assignment by performing the following tasks.

This task is a step in "Process of Configuring Assignment Objects for Availability-Based Assignment" on page 11-4.

To extend an assignment object's base table for availability-based assignment

1. Start Siebel Tools.

2. In the Object Explorer, expand the Table object, and then select Column.

3. In the Tables window, query for the appropriate table.

   For example, if you are extending the Service Request assignment object, then query for the S_SRV_REQ table.

4. With the table selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

5. In the Columns list, choose Edit, then Add New Record, to add the records as described in the following table.

Property	Record 1 (Required)	Record 2 (Required)	Record 3 (Optional)
Name	X_DURN_MIN	X_START_TIME	X_EARLY_START_TIME
Physical Type	Number	UTC Date Time	UTC Date Time
Length	22	7	7
Precision	22	Not applicable	Not applicable
Scale	7	Not applicable	Not applicable
LOV Type	APPOINTMENT_DURATION	Not applicable	Not applicable
Cascade Mode	Ignore	Ignore	Ignore
TxnLog Code	TRUE	TRUE	TRUE

6. After you have created the new records that you need in the Table column window, click Apply.

   Doing this sends the new columns to the appropriate tables in the database.

7. Complete the fields in the Apply Schema dialog box.

   a. In the Tables field, click the select button, and choose one of the following:

      – All

      – Current Query

      – Current Row

   b. In the Table Owner Password field, enter the appropriate value.

   c. Click Apply.

   The base table is now extended with the following three columns: X_DURN_MIN, X_EARLY_START_TIME, and X_START_TIME.

> **Note:** For IBM DB2 for z/OS, you must create a storage control file to accommodate the table space. You provide the location of the control file in the Apply Schema dialog box accordingly. Create the storage control file from the *SIEBSRVR_ROOT*/bin directory, with a buffer pool size of either 16 KB or 32 KB. If the Siebel Server is running on UNIX or Linux, then the storage control file generation is command-driven. If the Siebel Server is running on Windows, then you generate the storage control file using the GUI.

With the appropriate columns in place, you can now configure availability criteria for the assignment object.

Configuring Assignment Object Properties for Availability-Based Assignment

Using Siebel Tools, you configure an assignment object for availability-based assignment by setting the assignment object property and user property values and exposing some of those values in the user interface.

This task is a step in "Process of Configuring Assignment Objects for Availability-Based Assignment" on page 11-4.

To configure an assignment object for availability-based assignment

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object and select the assignment object.

3. With the object selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

4. In the Assignment Objects list, set the property values, as shown in Table 11–1.

Table 11–1 shows the assignment object property values that you set for availability-based assignment. Each property is specified as one value string.

Table 11–1   Assignment Object Property Settings for Availability-Based Assignment

Property	Description
Calendar Activity Additional Fields	(Optional) When this property is specified, Assignment Manager sets the field value to the row ID of the assignment object when it creates the activity. Assignment Manager also sets the additional fields to the specified field values. For example, for the Service Request object, you can specify the following fields: Activity SR Id, Type, To Do.
Calendar Early Start Time Column	(Optional) The table column that references the early start time of the object. For example, X_EARLY_START_TIME.

Table 11–1   (Cont.) Assignment Object Property Settings for Availability-Based Assignment

Property	Description
Calendar Start Time Column	The table column that references the start time of the object. For example, X_START_TIME.
	If a value is not specified in the Calendar Start Time Column property for an assignment object, then Assignment Manager does not check calendars when assigning that object, even if the Check Employee Calendar flag is checked on the assignment rule. Instead, Assignment Manager assigns all candidates who meet the criteria for the rule.
	For example, if you do not specify the Start Date or Due Date for an activity, then Assignment Manager does not check calendars when assigning this activity, even if the assignment rule has the Check Employee Calendar flag checked. Instead, Assignment Manager assigns all candidates who meet the criteria for the rule.
Calendar Duration Column	The table column that references the duration of the object. For example, WORK_TM_MIN.
Calendar Create Activity	(Optional) Check this column if you want an activity created for the assigned employee.
	TRUE = Activity *is* created in employee's calendar
	FALSE = Activity *is not* created in employee's calendar
	Note: You must configure this property if you plan to use the Appointment Booking System to detect conflicts. For more information about the Appointment Booking System, see "About Availability-Based Assignment" on page 11-1 and see *Siebel Field Service Guide*.

After the properties are configured for the assignment object, they must be made visible to the end user by adding them to the appropriate business component and applets.

Configure certain assignment user properties to come from either the object row itself or through constants.

For a procedure on how to do this, see "Configuring Assignment Object User Properties for Availability-Based Assignment" on page 11-8.

To make assignment object properties visible to the user

1. In the Object Explorer, expand Business Component, and select the appropriate business component.

2. With the business component selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

3. In the Fields list, add the records as described in the following table.

Property	Record 1	Record 2	Record 3
Name	X_DURN_MIN	X_EARLY_START_TIME	X_START_TIME
Changed	Check the flag	Check the flag	Check the flag
Column	X_DURN_MIN	X_EARLY_START_TIME	X_START_TIME
Text Length	22	7	7
Precision	22	Not applicable	Not applicable
Type	DTYPE_INTEGER	DTYPE_DATETIME	DTYPE_DATETIME
Use Default Sensitivity	Check the flag	Check the flag	Check the flag

4. In the Object Explorer, expand Applet, and select the appropriate List Applet.

5. With the business component selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

6. In the List Column list, add the records as described in the following table.

Property	Record 1	Record 2	Record 3
Field	X_DURN_MIN	X_EARLY_START_TIME	X_START_TIME
Changed	Check the flag	Check the flag	Check the flag
Available	Check the flag	Check the flag	Check the flag
Display Name	X_DURN_MIN	X_EARLY_START_TIME	X_START_TIME
HTML Display Mode	Encode Data	Encode Data	Encode Data
HTML List Edit	Check the flag	Check the flag	Check the flag
HTML Row Sensitive	Check the flag	Check the flag	Check the flag
HTML Type	Text	Text	Text
Runtime	Check the flag	Check the flag	Check the flag
Text Alignment	Left	Left	Left

7. Select the appropriate browser from the Target Browser picklist.

To expose the Target Browser picklist, launch Siebel Tools. Choose View, then Toolbars, then Configuration Context, and select the Target Browser option from the toolbar.

Configuring Assignment Object User Properties for Availability-Based Assignment

Using Siebel Tools, you configure the values of the Activity Type, Activity Priority, and Breakable Flag user properties for an assignment object to come from either the object row itself or through constants.

This task is a step in "Process of Configuring Assignment Objects for Availability-Based Assignment" on page 11-4.

To configure assignment object user properties for availability-based assignment

1. Start Siebel Tools.

2. In the Object Explorer, expand Workflow Policy Object and select the assignment object.

3. With the object selected, choose Tools, then Lock Project (or Alt+L), to lock the project.

4. In the Assignment Objects list, choose Edit, then New Record, to add the property values, as shown in Table 11–2.

5. After the user properties are configured for the assignment object, they must be made visible to the end user by adding them to the appropriate business component and applets.

> **Note:** Configure the views and applets with Start Time and Duration fields, such as is the case with Activity.

For information about how to make the properties visible to the end user, see *Using Siebel Tools*.

Table 11–2 shows the assignment object user property values that you set for availability-based assignment.

> **Note:**   A *column* user property takes precedence over the corresponding *value* user property. For example, if you define a Breakable Flag Column user property and a Breakable Flag Value user property, then the Breakable Flag Column user property takes precedence. As an alternate method, you can configure the Calendar Activity Additional Fields property on the assignment object to specify the values of certain fields. Assignment Manager assigns in this order: column user property, then value user property, and then Calendar Activity Additional Fields property.

Table 11–2   Assignment Object User Property Settings for Availability-Based Assignment

Property	Description
Activity Breakable Flag Column	The name of the column in the assignment object primary table that stores the value of the Breakable Flag property. When this property is defined and the Check Employee Calendar flag is checked on the assignment rule, Assignment Manager queries for the Activity Breakable Flag Column when it retrieves data from the object row, and passes this value to the Appointment Booking System when evaluating employee availability. For example, you can create a user property for the Activity assignment object with name=Activity Breakable Flag Column and value=ALLOW_BREAK_FLG.
Activity Breakable Flag Value	The constant value that is passed to the Appointment Booking System for the Breakable Flag field in the availability-based assignment. For example, you can create a user property for the Service Request assignment object where the name is Activity Breakable Flag Value, and the value is Y.
Activity Priority Column	The name of the column in the assignment object primary table that stores the value of the Activity Priority. When this property is defined and the Check Employee Calendar flag is checked on the assignment rule, Assignment Manager queries for the Activity Priority Column column when it retrieves data from the object row and passes this value to the Appointment Booking System when evaluating employee availability. For example, you can create a user property for the Activity assignment object, with name=Activity Priority Column and value=ALLOW_BREAK_FLG.
Activity Priority Value	The constant value that is passed to the Appointment Booking System for the Activity Priority field in availability-based assignment. For example, you can create a user property for the Service Request assignment object with name=Activity Priority Value and value=TRUE.
Activity Type Column	The name of the column in the assignment object primary table that stores the value of the Activity Type. When this property is defined and the Check Employee Calendar flag is checked on the assignment rule, Assignment Manager queries for this column when it retrieves data from the object row and passes this value to the Appointment Booking System when evaluating employee availability. For example, you can create an Activity assignment object with name=Activity Type Column and value=ALLOW_BREAK_FLG.
Activity Type Value	The constant value that is passed to the Appointment Booking System for the Activity Type field in availability-based assignment. For example, you can create a Service Request assignment object with name=Activity Type Value and value=TRUE.

Example of Configuring the Service Request Assignment Object for Availability-Based Assignment

This topic gives one example of creating an assignment rule that evaluates a service request object and assigns the object to the highest-scoring employee based on the employee's skill level and availability. You might use this feature differently, depending on your business model.

The service request object, which is often associated with a job, a finite time period, and a specific owner, is an example of an object that can be assigned using Assignment Manager's availability-based assignment feature.

To use the availability assignment feature, certain setup procedures must be performed in the Siebel Field Service application before creating the assignment rule. For more information about this feature and its requirements, see "About Availability-Based Assignment" on page 11-1. Several configurations must also be made to the assignment object before using the availability feature. See "Process of Configuring Assignment Objects for Availability-Based Assignment" on page 11-4.

Requirements

The following procedures assume that a service region (California Service Region), employees (West Coast Service Representative and West Coast Service Manager), and a product (Pentium III Desktop) are already defined. For information about defining service regions, see *Siebel Field Service Guide*.

Setting Up Siebel Field Service for Availability Assignment

Use the following procedure to set up the Siebel Field Service application for availability assignment.

To set up the Field Service application for availability assignment

1. Verify that a schedule exists with valid hours by navigating to the All Schedules view (Administration - Service screen, Schedules view).

    For this example, select the 12x5 Support schedule in the Schedules List, and click the Schedule Hours view tab. Make sure that the hours listed are valid. The following figure shows this view.

2. Set up a Service Region.

    Navigate to the Administration - Scheduling screen, and then the Service Regions view. For this example, select the California Service Region. In the Schedule field, select 12x5 Support.

3. Set up the parameter set for the Service Region.

   With California Service Region selected, navigate to the Parameters Sets view (in the Administration - Scheduling screen). For this example, select the West Coast Parameters used by the California Service Region, and then click the Parameters tab. Update the following parameter records:

   - ABS Days to Start = 0

   - ABS Days to End = 20

   - ABS Logging Level = 4

4. Set up server key mappings by navigating to the Server Key Mappings view in the Administration - Scheduling screen.

   For this example, create a new record and save it with the following field values:

   - Server = Siebel Server

   - Process # = 0

   - Service Region = California Service Region

   - Component = ApptBook

5. Associate employees to the service region by navigating to the Administration - User screen, and then the Employees view.

   For this example, select the West Coast Service Representative and the West Coast Service Manager and click the Field Service Details tab. Edit the Schedule and Service Region fields with 12x5 Support and California Service Region, respectively.

   > **Note:** If service regions are modified or deleted, then you must release assignment rules to update the rulecache.dat file.

After the Field Service application is configured, create the assignment rule that uses the assignment availability feature.

Creating a Field Service Assignment Rule

Use the following procedure to create a field service availability assignment rule.

To create a field service assignment rule

1. Create the assignment rule by navigating to the Administration - Assignment screen, and then the Assignment Rules List view.

   a. In the Assignment Rules List, choose Edit, then New Record.

   b. In the new record, enter the following settings:

      – Name = West Coast Service

      – Objects to Be Assigned = Service Request

      – Assignee Filter = One, Best Fit

   c. Click the Check Employee Calendar checkbox to enable the rule for availability-based assignment.

2. Determine assignment criteria.

Navigate to the Criteria view tab and create Product criteria for the assignment rule. For this example, service representatives are evaluated with the Compare Object to Person comparison method, based on an employee's product knowledge.

3. Determine assignment criteria values.

    Navigate to the Values view and create a new record with Pentium III desktop.

4. Define employees for the assignment rule.

    Navigate to the Assignment Employee view and add West Coast Service Representative and the West Coast Service Manager to the assignment rule.

5. Release the assignment rule.

When a service request is created with attributes that match both West Coast service representatives, Siebel Assignment Manager, through the Appointment Booking System, assigns the employee who has available time in his or her calendar and work schedule. Optionally, the Appointment Booking System can create an activity in the assigned employee's calendar. For more information about the Appointment Booking System, see *Siebel Field Service Guide*.

Figure 11–2 shows an example of a field service assignment rule, where:

■   Name = West Coast Service

■   Objects to Be Assigned = Service Request

■   Rule Group = FS_DISP_RULE GROUP

■   Assignee Filter = One, Best Fit

■   Candidate Passing Score = 0

■   The Check Employee Calendar checkbox is activated, thereby enabling the rule for availability-based assignment.

Figure 11–2   A Field Service Assignment Rule with the Check Employee Calendar Field Activated

12

Siebel Assignment Manager Load Splitter Configuration

This chapter describes Siebel Assignment Manager load splitter configuration. It includes the following topics:

- "How Load Splitter Configuration Works" on page 12-1
- "Scenarios for Load Splitter Configuration" on page 12-2
- "Setting Up Load Splitter Configuration" on page 12-3
- "Examples for Administering the Load Splitter" on page 12-4
- "Load Splitter Operating Modes" on page 12-5
- "Distribute Data Method" on page 12-6

How Load Splitter Configuration Works

Using load splitter configuration for Siebel Assignment Manager (AM in the figure that follows), you can run multiple Siebel Servers concurrently on separate computers within the Siebel Enterprise, as shown in Figure 12–1. This deployment option can enhance assignment throughput by reducing the amount of time required to complete assignment requests.

Figure 12–1   High-Level Process Flow for Load Splitter Configuration

Database Server
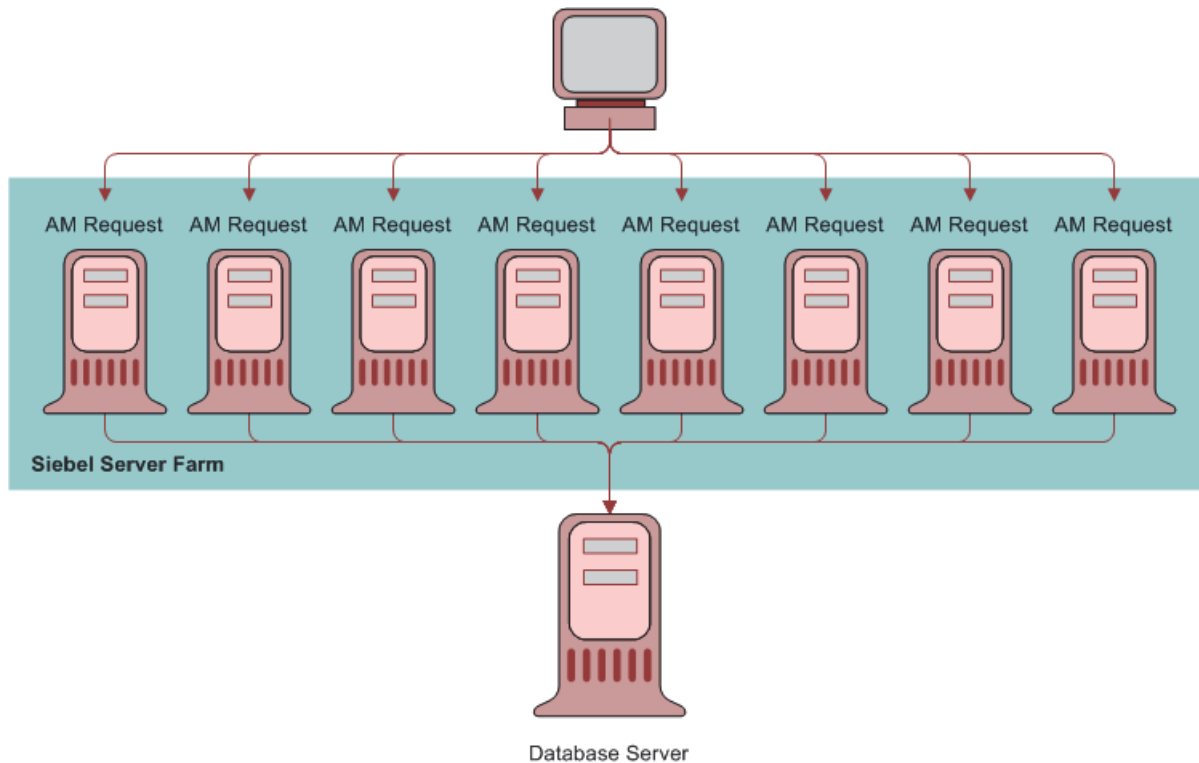
Figure 12–1 shows that, when a batch request is submitted, the load splitter divides the objects into multiple assignment requests across multiple computers. Assignment Manager then executes according to the predefined load splitter configurations and outputs to the database server. In this way, Assignment Manager balances job load when processing a large number of object rows.

Load splitter configuration is especially useful for batch assignment or when you must reassign large amounts of data, launch new product lines, change territory coverage or routing definitions, and so on. This feature is a useful tool for processing major reassignments, because load splitter configuration can automatically determine the load and share it evenly across multiple servers.

Load splitter configuration works in two modes, write mode and read mode, depending on where it finds the object row IDs to process. For more information about these modes, see "Distribute Data Method" on page 12-6.

> **Note:**   You can use load splitter configuration in both Production and Reporting modes.

Scenarios for Load Splitter Configuration

This topic provides scenarios for how you might use load splitter configuration for Siebel Assignment Manager, and how you can use threshold and batch size to manage your tasks. You might use this feature differently, depending on your business model.

You can use load splitter configuration when you perform:

- Bulk import of accounts, contacts, or other data from a legacy system or data feeds

A software company periodically imports several thousands of accounts, contacts, and other data (for example, assets, products, and so on) from a legacy system. The company uses load splitter configuration to make sure that this newly imported information has correct visibility to the right people using the Siebel Business Applications. In this case, the assignment administrator is spared the responsibility of load balancing because load splitter configuration automatically identifies how to distribute the imported data evenly among the available Siebel Servers.

■ Periodic assignment rule changes

A consumer goods company periodically makes changes to assignment rules. The company uses load splitter configuration to make sure that all accounts and contacts are reassigned in optimal time. In this case, the assignment administrator is spared the time-consuming responsibility of planning and determining what resources are available for the realignment.

Setting Up Load Splitter Configuration

To set up load splitter configuration for Siebel Assignment Manager, the assignment administrator specifies a list of servers, the number of tasks each of those servers can run, and the priority for each server for a given configuration. Use the following procedure to set up load splitter configuration for your needs.

> **Note:**   Make sure that the Assignment Manager server component is enabled on all the specified servers. For more information about checking the status of this component, see "Checking the State of Siebel Assignment Manager and Server Request Broker Components" on page 9-2.

To set up load splitter configuration

1. Navigate to the Administration - Assignment screen, and then the Load Splitter Configuration view.

2. In the Load Splitter Configuration list, click New to add a new record.

   The Configuration ID field automatically populates.

3. In the new record, enter values for the relevant information.

   a. In the Name field, type the name of the configuration.

   b. In the Threshold field, click the calculator button to enter a number. This field identifies the maximum number after which the splitting will occur.

   c. In the Minimum Batch Size field, click the calculator button to enter a positive number. This field determines the minimum number of rows processed within a single task.

4. In the Server Configuration list, click New to add a new record.

   a. In the Priority field, click the calculator button to enter a number.

   This field determines which server is picked up first for processing over others. The priority is determined in ascending order, that is, 1 is a higher priority than 2. For example, assume that you have dedicated Assignment Manager servers that require a higher priority than another server running Siebel EIM. In this case, you would set a higher priority for the Assignment Manager servers than for the Siebel EIM server.

> **Tip:** It is recommended to set your first priority number fairly high, such as to 100, and to provide sufficient gaps between priority numbers. Doing this can be helpful in case new servers are added for processing load splitting tasks, because you will not have to reset your entire priority arrangement. For example, if you start with two servers, then set one priority at 100, and the other at 200. If you add a third server, then you could set its priority to 150 if its priority is between that of the other two values.

   b. In the Server Name field, enter the name of the Siebel Server.

   c. In the Number of Tasks field, click the calculator button to enter a positive number. This field determines the number of tasks that can be executed on that particular server.

Figure 12–2 shows a sample Align configuration that uses two servers, Server A and Server B, to process multiple tasks. In this configuration, Server A has a higher priority than Server B.

Figure 12–2   Example of Load Splitter Configuration

Examples for Administering the Load Splitter

The following three examples show how the assignment administrator might use threshold, batch size, and load splitter configuration to split a batch request into multiple, manageable tasks. You might use this feature differently, depending on your business model for Siebel Assignment Manager.

Example 1: Load Splitter Less Than Threshold

In this example, the load splitter receives 900 row IDs for the account assignment object. Because this is less than the threshold, which is 1000, no load splitting occurs. All rows are passed to the server with the lowest priority number.

Example 2: Load Splitter Using Minimum Batch Size

In this example, the load splitter receives 1001 row IDs for the account assignment object, which is greater than the threshold of 1000. The total number of tasks is 10, and minimum batch size is 500. The load splitter tries to split the rows into even tasks. The default calculation for batch size calculates 1001 divided by 10, or about 100 rows, as the batch size. Due to the ramp-up time for different server components, this processing is actually more inefficient than just running two separates batches of 500 and 501 row IDs. Therefore, the load splitter takes the minimum batch size of 500 into account and splits the rows into two tasks of 500 and 501.

Example 3: Load Splitter When Batch Size Is Greater Than Minimum Batch Size

In this example, the load splitter receives 6023 row IDs for the Account assignment object. Because this is greater than the threshold of 1000, the load splitter tries to split the rows into batches. The default calculation for batch size calculates 6023 divided by 10, or about 600 rows, as the batch size. Because this is greater than the minimum batch size of 500, the load splitter splits the rows into 8 tasks of 600 and one task of 623.

Load Splitter Operating Modes

Load splitter configuration for Siebel Assignment Manager uses the Configuration ID parameter to query for the threshold, minimum batch size, list of servers, the server task numbers, and the maximum number of tasks. However, if certain conditions exist, then load splitter configuration passes all the objects as one batch onto the server component. Those conditions are:

- If there is no configuration data

- If configuration is incorrect

- If the server cannot be found

There are two operating modes for load splitter configuration, write mode and read mode, depending on where load splitter configuration finds the object row IDs to process. Write mode writes to the S_ASGN_LB_DATA table, whereas read mode expects the data to already be loaded into the table.

- **Write Mode.** By default, load splitter configuration runs in write mode. This mode takes a property set of WHERE clauses (one for each object type), inserts the rows into the S_ASGN_LB_DATA table, and then groups the object row IDs into several tasks and passes them to Assignment Manager.

  In write mode, the Load Splitter Service business service takes two types of input to identify the records that must be assigned: the object to be assigned and the search specification (in SQL format).

  Based on load splitter configuration parameters, the load splitter splits the data, computes the resources available, and then distributes the assignment load among the configured Siebel Servers.

- **Read Mode.** Load splitter configuration runs in read mode based on a request ID. If the Mode input argument is Read, then load splitter configuration separates the object rows into separate tasks and submits a request to a server component job to the appropriate server or servers.

  In read mode, the assignment administrator (AA) determines the records that must be assigned in the S_ASGN_LB_DATA staging table, and then invokes the load splitter in read mode. The Load Splitter Service business service bypasses the

identifying phase and reads the predetermined set of records that must be assigned.

Based on load splitter configuration parameters, the load splitter computes the resources available (as in write mode), and then distributes the assignment load among the configured Siebel Servers.

For information about invoking the load splitter, see "Distribute Data Method" on page 12-6.

Distribute Data Method

The Distribute Data business service method is part of the Load Splitter Service business service, which allows you to configure Siebel Assignment Manager to run on multiple Siebel Servers concurrently within the Siebel Enterprise. This method consists of a complex hierarchical input property set.

This topic documents the arguments, usage, and invocation context for the Distribute Data method, and provides example code for invoking load splitter configuration.

Arguments

Table 12–1 lists the arguments supported for the Distribute Data method.

Table 12–1   Arguments for Distribute Data Method

Argument	Description
Configuration Id	The load splitter uses the configuration ID to get the configuration for the servers, threshold, minimum batch size, list of servers to run on, and so on.
Mode	Determines whether the load splitter runs in write or read mode. Read mode is the default.
Object Types	A property set that identifies the types of objects in a run and a child property set that contains a WHERE clause and the table name of each object type. For example: Object Type = Contact WHERE Clause = Specialty LIKE Cardiology TableName = S_PARTY
Request Id	Identifies the rows in the S_ASGN_LB_DATA table for a specific assignment request.
Server Component	Identifies the server component that the load splitter uses to pass the object rows for subsequent processing. The component is either Assignment Manager (AsgnSrvr) or Batch Assignment (AsgnBatch). This parameter also contains a child property set that has the input arguments used by a particular server component. For example: AsgnSrvr can take in the following input arguments based on underlying component parameters: AsgnKey, CopyPersonSpecData, and so on.

Table 12–1   (Cont.) Arguments for Distribute Data Method

Argument	Description
Component Parameters	The property set that contains all the parameters for the specified server component.
	This property set must be added as a child of each (previous) Object Type property set.
	Note: It is not possible to pass parameters such as Assignment Key, Regular Assign, and Reporting Mode using the Load Splitter Service business service. If you specify any of these values to be passed by the load splitter as property name and value pairs, then they are ignored. For example, the Assignment Key is ignored and Batch Assignment chooses the default All AM Rule Set component parameter rather than the particular rule group that you want to execute.
Set Server Component Object Type Parameter	Indicates which parameter to populate with the object type.
Set Server Component SQL Parameter	Indicates which parameter to populate with the load-balanced SQL statement.

Usage

Input for load splitter configuration comes from any service that intends to use it, for example Target Object Selector (TOS), a business service. Load splitter configuration splits the objects that need processing into separate batches and submits those batches to a the server component, such as Assignment Manager (AsgnSrvr) in the example that follows.

Invoked From

You can invoke the load splitter using a workflow process, business service, scripting, and so on.

Example

The following is sample code for invoking load splitter configuration using a business service.

```
function LoadSplitterCreateInputs()
{
var psInputArgs;
var psOutputArgs;
var psObjTypes;
var psSrvrCompParams;
var pService;

psInputArgs = TheApplication().NewPropertySet();
psInputArgs.SetProperty ("Request Id", "LoadSplitterTest");
psInputArgs.SetProperty ("Configuration Id", "42-4VPGT");
psInputArgs.SetProperty ("Mode", "Write");
psInputArgs.SetProperty ("Server Component", "AsgnSrvr");
psInputArgs.SetProperty ("Set Server Component Object Type Parameter",
"AsgnObjName");
psInputArgs.SetProperty ("Set Server Component SQL Parameter", "ObjRowSqlStmt");

psObjTypes = TheApplication().NewPropertySet();
```

```
psObjTypes.SetType ("Object Type");
psObjTypes.SetValue ("Account");
psObjTypes.SetProperty("SQL", "SELECT ROW_ID FROM SIEBEL.S_ORG_EXT WHERE NAME LIKE
'K%TEST%'");
psInputArgs.AddChild (psObjTypes);

psObjTypes = TheApplication().NewPropertySet();
psObjTypes.SetType ("Object Type");
psObjTypes.SetValue ("Opportunity");
psObjTypes.SetProperty ("SQL", "SELECT ROW_ID FROM SIEBEL.S_OPTY WHERE NAME LIKE
'K%TEST%'");
psInputArgs.AddChild (psObjTypes);

psSrvrCompParams = TheApplication().NewPropertySet();
psSrvrCompParams.SetType ("Component Parameters");

psInputArgs.AddChild (psSrvrCompParams);
psOutputArgs = TheApplication().NewPropertySet();

pService = TheApplication().GetService("Load Splitter Service");
pService.InvokeMethod ("DistributeData", psInputArgs, psOutputArgs);
}
```

A
Troubleshooting: Siebel Assignment Manager Error Messages

This appendix explains how to view Siebel Assignment Manager error messages using Siebel Tools and provides a description for many of the error messages. It includes the following topics:

- "Viewing Siebel Assignment Manager Error Messages" on page A-1
- "Siebel Assignment Manager Error Messages" on page A-1

Viewing Siebel Assignment Manager Error Messages

Using Siebel Tools, you can view Siebel Assignment Manager error message descriptions and suggested resolutions. You must be connected to the server database to retrieve this information.

To view Assignment Manager error messages

1. Start Siebel Tools and connect to the server.

2. Select Screens, then System Administration, and then the Strings view.

3. Enter a query using the Message Key column with *ASG* OR ERR_ASG*.

   The Assignment Manager error messages appear.

4. (Optional) Sort by error message number.

Siebel Assignment Manager Error Messages

Table 12–2 lists some of the error codes, the message text, and a description of each error that Siebel Assignment Manager can generate during processing. For each error, Assignment Manager writes this information to the Assignment Manager log file (if you specified that one be used).

Table 12–2 provides some of the Assignment Manager error codes. The error text that appears in this table is generic. However, for most errors, Assignment Manager generates more specific information about the exact cause of the error. Both the generic and the specific error messages appear in the Server Process Log; while the specific error message appears in the Assignment Manager log file.

> **Note:** When dynamic assignment is running, some users might receive the following error when attempting to modify a record: `The selected record has been modified by another user since it was received. Please continue.` This can occur because Oracle's Siebel Assignment Manager updated the record by assigning it while the user was trying to edit it. In this situation, the user's changes might be lost. The solution is to refresh the query and reenter the user's changes.

Table 12–2   Assignment Manager Error Codes

Error Code	Error Text	Resolution
ERR_ASG_ALREADY_ ASSIGNED	Assigned this object %1 (more recently than requested %2).	This is just information.
ERR_ASG_ASSIGN_REPLY	Selected %3 rules, %5 organizations, and %4 people for %1 (%2).	This is just information.
ERR_ASG_BASSIGN_REPLY	Assigned %1 rows for %2.	This is just information.
ERR_ASG_LOADING_ OBJECT	Unable to load assignment object %1.	The configuration of the assignment object is not correct. Use Siebel Tools to check the configuration of the assignment object.
ERR_ASG_BDENORM_REPLY	Denormalized %1 rows for %2.	This is just information.
ERR_ASG_CANNOT_ ASSIGN_ LOCKED_ROW	Cannot assign this item because it is in a locked state. (Object Name = %1, Object Row Id = %2.)	If you want to assign this object, then uncheck the Lock Assignment field for the object being assigned. Otherwise, this is just information.
ERR_ASG_DENORM_REPLY	Denormalized %1 rows for %2.	This is just information.
ERR_ASG_DUP_CONFLICT	Unable to update row (%1) because updated values violate unique index with an existing row (%2).	Check the data on your team table on the object row ID where it failed.
ERR_ASG_INVALID_BU_ DFLT_NAME	Default organization %1 for assignment object %2 is not found in the organizations table. Please check that Default Organization - %1 is a valid organization.	Use Siebel Tools to set the Default Organization parameter for the assignment object to a valid organization in the database.
ERR_ASG_INVALID_EMP_ DFLT_NAME	Default employee %1 for assignment object %2 is not found in the employees table.	Use Siebel Tools to set the Default Employee parameter for the assignment object to a valid employee in the database.
ERR_ASG_INVALID_POSTN_ DFLT_NAME	Default position %1 for assignment object %2 is not found in the positions table.	Use Siebel Tools to set the Default Position parameter for the assignment object to a valid position in the database.
ERR_ASG_INVALID_STORE_ COL_NUM	Assignment criteria attribute %1 has an invalid store column.	Check the Store Column value for your assignment criteria attribute and make sure that it lies between 1 and 4.
ERR_ASG_INVALID_WF_ LINK_COL	Assignment attribute column (%1) references invalid workflow component column (%2).	Check the Workflow Policy Component Column property of the assignment attribute column, and make sure that it points to a valid and active workflow policy component column.

Table 12–2   (Cont.) Assignment Manager Error Codes

Error Code	Error Text	Resolution
ERR_ASG_ITEM_ATTR_HAS_ NO_ATTR	Assignment Criteria %1, Assignment Criteria Attribute %2 has no attribute defined. Verify in Siebel Tools that the Assignment Criteria %1 has an assignment criteria attribute defined and active. Recompile the server repository file to apply changes made on assignment criteria configuration if necessary.	Not applicable or no further explanation is needed.
ERR_ASG_ITEM_ATTR_HAS_ NO_ITEM	Item(%2) not found for item attribute (%1). Please make sure that the item(%2) is active.	Make sure that the Parent Assignment Item Type of the Assignment Criteria Attribute(%1), points to a valid and active assignment criteria.
ERR_ASG_ITEM_NOT_ FOUND	Assignment Criteria %1 has an invalid assignment attribute. Please check the assignment criteria configuration on Siebel Tools using the Validate tool, and note that it is a requirement to recompile the server SRF after adding or deleting assignment criteria records.	Not applicable or no further explanation is needed.
ERR_ASG_LOADING_GROUP	Unable to load assignment rule %1 from the database. Please check the assignment rule definitions to make sure that all the required information is correct and press the Release button to recreate the rule cache data file.	Not applicable or no further explanation is needed.
ERR_ASG_LOADING_ OBJECT	Unable to load assignment object %1."	Check the configuration of the assignment object.
ERR_ASG_LOV_VALUE_ NOT_ FOUND	No LOV value found for Type [%1], Value [%2].	Make sure that expertise values for skills are valid, belonging to LOV type EXPERTISE_CD (defined through Application Administration screens).
ERR_ASG_MATCHASSIGN_ REPLY	Qualified and selected %3 rules, %5 organizations, and %4 people for %1 (%2).	This is just information.
ERR_ASG_MATCH_REPLY	Qualified %3 rules, %5 organizations, and %4 people for %1 (%2).	This is just information.
ERR_ASG_NO_OBJ_COL_ FOUND	Assignment object %1 has no columns.	Not applicable or no further explanation should be needed.
ERR_ASG_NOT_EMP_POSTN	Employee or Position not specified for assignment object %1.	If person-based assignment, then make sure that at least one of the four properties (Position Table, Position Primary Column, Employee Table, Employee Primary Column) for assignment object %1 has a valid non-null value. If organization-based assignment, then make sure that at least one of the two properties (Org Table, Org Primary Column) for assignment object %1 has a valid non-null value.
ERR_ASG_NO_WF_COLS_ IN_ATTR	Assignment attribute %1 has no workflow columns.	Not applicable or no further explanation is needed.

Table 12–2   (Cont.) Assignment Manager Error Codes

Error Code	Error Text	Resolution
ERR_ASG_NO_WF_OBJECT	No workflow object available for assign object = %1.	Make sure that the Parent Workflow Object property of the Assignment Object % points to a valid workflow object.
ERR_ASG_OBJECT_NOT_FOUND	Assignment object %1 is not registered in the Siebel repository. Please make sure that %1 is a valid assignment object name and the value you input is identical to what you see in the application. Please review the Assignment Manager documentation for details on the required parameters before running an Assignment Manager task.	Not applicable or no further explanation is needed.
ERR_ASG_PERSON_OBJECT_NUM_ATTR_MISMATCH	Number of attributes do not match with assignment object for person object %1.	Not applicable or no further explanation is needed.
ERR_ASG_PR_TBL_ROW_NOT_FOUND	RowId [%1] in table [%2] not found.	Make sure that the request submitted is for a valid row ID in table (%2).
ERR_ASG_UPDATE_FAILED	Unable to update row %1 (%2).	Check the log file for database related error, and correct the error.
ERR_ASG_PARSING_VALUE	Unable to parse criteria value %1.	Not applicable or no further explanation is needed.
ERR_ASGN_KEY_NO_MATCH	Assignment Key %1 does not match the Request Key.	Make sure that the AsgnKey parameter is set to the Row Id of one of the assignment groups mapped to the server.

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