

# Administrator's Guide

*iPlanet Application Server Enterprise Connector  
for PeopleSoft*

**Version 6.0**

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# Preface

The *iPlanet Application Server Enterprise Connector for PeopleSoft Administrator's Guide* explains how to get started with, install, manage, and configure the iPlanet Application Server Enterprise Connector for PeopleSoft.

This preface contains information about the following topics:

- Prerequisites
- Supported Platforms
- System Requirements
- What's in This Guide
- Documentation Conventions
- Online Guide
- Related Information

## Prerequisites

The *iPlanet Application Server Enterprise Connector for PeopleSoft Administrator's Guide* is written for system administrators who want to install, manage and configure the PeopleSoft connector.

The guide assumes you are familiar with the following topics:

- iPlanet Application Server Programming Concepts. See the *iPlanet Application Server Developer's Guide* for more details
- The Internet and the World Wide Web
- PeopleSoft Programming Concepts
- Java Programming Language

# Supported Platforms

The iPlanet Application Server Enterprise Connector for PeopleSoft supports the following platforms:

**Table 1** Platform Specifications

Vendor	Platform
Microsoft	Windows NT version 4.0 with Service Pack 5
Sun	SPARC running Solaris 2.6

# System Requirements

To install the iPlanet Application Server for PeopleSoft, your system must have the following:

- iPlanet Application Server Version 6.0 SP1 installed
- PeopleSoft Version 7.55 installed
- iPlanet Unified Integration Framework (UIF) Version 6.0 SP1 installed
- Available disk space: 200 MB for NT, 400 MB for Solaris
- Memory per CPU: 256MB minimum, 512MB recommended

# What's in This Guide

The *iPlanet Application Server Enterprise Connector for PeopleSoft Administrator's Guide* provides the information you need to understand, set up, and administer all aspects of the iPlanet Application Enterprise Connector Server for PeopleSoft.

The following table lists a short summary of what each chapter covers:

**Table 2** Chapter Summary

See this chapter:	If you want to do this:
Chapter 1, "Overview"	Familiarize yourself with general concepts of the iPlanet Application Server Connector for PeopleSoft.
Chapter 2, "Installation"	Install the connector.

**Table 2** Chapter Summary (*Continued*)

---

<b>See this chapter:</b>	<b>If you want to do this:</b>
Chapter 3, “Managing Data”	Manage the data sources and data objects.
Chapter 4, “Configuring the Application”	Configure the system and pooling settings.

## Documentation Conventions

File and directory paths are given in Windows format with backslashes separating directory names. For Unix versions, the directory paths are the same, except slashes should be substituted in place of backslashes.

This guide uses URLs of the form:

`http://server.domain/path/file.html`

In these URLs, *server* is the name of the server on which you run your application; *domain* is your Internet domain name; *path* is the directory structure on the server; and *file* is an individual filename. Italics items in URLs are placeholders.

This guide uses the following font conventions:

- The `monospace` font is used for sample code and code listings, API and language elements (such as function names and class names), file names, pathnames, directory names, and HTML tags.
- *Italic* type is used for book titles, emphasis, variables and placeholders, and words used in the literal sense.

## Online Guide

You can find the *iPlanet Application Server Enterprise Connector for PeopleSoft Administrator's Guide* online in PDF and HTML formats. To locate these files, use the following URL:

`http://docs.iplanet.com/docs/manuals/`

# Related Information

In addition to this guide, there is additional information available for administrators, end users and developers. The following lists these documents:

- *iPlanet Application Server Enterprise Connector for PeopleSoft Developer's Guide*
- *iPlanet Web Server Developer's Guide*
- *iPlanet Application Server Administrator's Guide*
- *iPlanet Application Server Installation Guide*
- *iPlanet Application Server Overview Guide*
- *iPlanet Application Server Release Notes*
- *iPlanet Application Server Administrator's Guide*
- *iPlanet Application Builder User's Guide*
- *iPlanet Application Builder Installation Guide*
- *iPlanet Application Builder Release Notes*
- *Unified Integration Framework (UIF) Release Notes*
- *Unified Integration Framework (UIF) Developers Guide*

# Overview

The iPlanet Application Server Enterprise Connector for PeopleSoft is used for building and delivering scalable applications that integrate the application server, with PeopleSoft Enterprise Resource Planning (ERP) management systems.

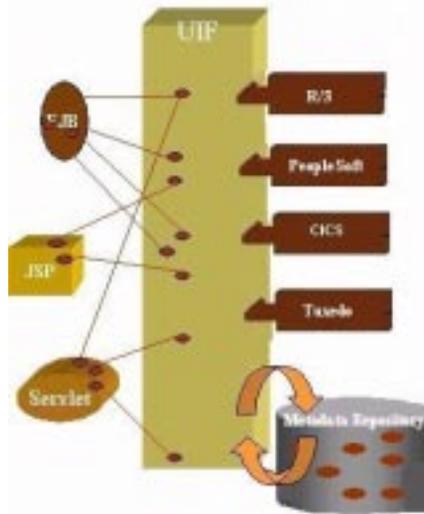
This chapter introduces the iPlanet Application Server Enterprise Connector for PeopleSoft and describes some fundamental concepts the administrator should be familiar with when setting up the connector for PeopleSoft. This chapter contains information about the following topics:

- Unified Integration Framework
- Three-tier Application Model
- High-level System Architecture
- Enterprise Connector Tools for PeopleSoft
- National Language Support

## Unified Integration Framework

The Unified Integration Framework (UIF) is an application programming framework that provides a single Application Programming Interface (API) to access different Enterprise Information Systems (EIS). A connector is developed for each EIS to allow communication between the UIF API and the EIS, as seen in Figure 1-1. The UIF API is the only API necessary to access the EIS.

**Figure 1-1** Unified Integration Framework



The UIF enables development of server extensions that integrate with legacy systems, client-server applications, and third-party Internet solutions. These extensions provide a consistent access layer to disparate back end systems, dramatically reducing development effort. The framework provides support for features such as object-pooling, and distributed state and session management

A generic data repository is also part of the UIF, which is used to hold metadata parameters and other information about the back end system. For example, the metadata often describes the physical connection between systems, the data that is available, and methods you can use to process data.

The implementation of each connector is specific to the Enterprise Information Systems (EIS) since each EIS is different.

## UIF Services

The UIF is a component of the iPlanet Application Server. The iPlanet Application Server plays a prominent role in a three-tier application model, (see Three-tier Application Model for a description). The UIF mediates between the iPlanet Application Server application and the EIS tier, namely the data sources and databases.

The UIF provides an API to access the following services:

- Runtime
- Data Object Services
- Repository and Metadata Services (not available to users)

### Runtime

The UIF runtime services supply core services for resource management, thread management, communication and life cycle management, and exception management. The UIF runtime services understand and interpret metadata repository contents.

### Data Object Services

The Data Object Services implements universal data representation common to all connectors. See the *iPlanet Application Server Enterprise Connector for PeopleSoft Developer's Guide* for a description of data objects.

### Repository and Metadata Services

The UIF repository and metadata services model a persistent information hierarchy that supports data type definitions, and inheritance. It also manages the instances and reuse of data objects from data type definitions.

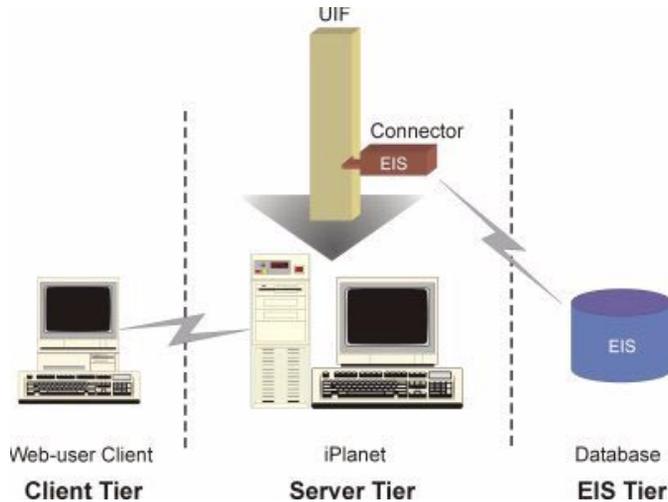
## Three-tier Application Model

The machine and software involved are divided into the following three tiers:

- Client Tier
- Server Tier (iPlanet Application Server)
- EIS Tier

The connectors serve as an essential link allowing the server tier to communicate with the EIS tier, as shown in Figure 1-2. Communication between the application server and the EIS is facilitated by the UIF API. This layer of functionality resides as an added layer to the iPlanet Application Server, and enables data communication with diverse EIS's in a seamless and uniform manner.

**Figure 1-2** Three-tier Web-based Computer Model



## Client Tier

The client tier is represented as the user interface. Requests for data originate here, represented by web browsers or rich clients (such as a Java applet).

## Server Tier

The server tier is represented by an application server and optionally a web server such as the iPlanet Web Server Enterprise Edition. The server tier houses the business logic (Enterprise Java Beans and/or your application servlets), and provides scalability, high availability load balancing, and integration with a variety of data sources.

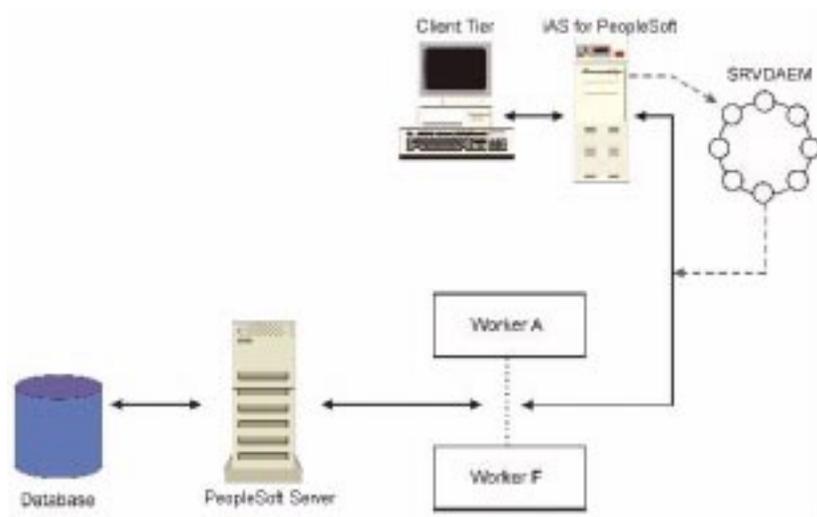
## EIS Tier

The EIS tier is represented by an ERP systems database or another EIS data system, such as CICS.

# High-level System Architecture

When the iPlanet Application Server startup process begins, the UIF loads the connector into the process. Before you receive a client request, the daemon needs to be started manually. See *Launching the Daemon* in Chapter 2. The connector notifies the daemon of the request using a proprietary protocol. The daemon either creates a new worker process to process the request or passes on the request to an idle worker process. The actual conversation to the EIS is done by the worker process. The worker process returns the results to the connector using the proprietary protocol. Figure 1-3 displays the system flow of the iPlanet Application Server.

**Figure 1-3** System Flow



## Enterprise Connector Tools for PeopleSoft

The Enterprise Connector Tools are as follows:

- Management Console - includes User Mapping and Data Mining Tools
  - User Mapping - allows you to map user IDs for access into the EIS, and to edit and manage data sources.

A data source represents the connection to the EIS.

- Data Mining Tool - includes capabilities such as determining the available functions in the EIS, translating and reformatting data, and loading data into the data repository.
- Repository Browser - allows you to browse data in the repository. You can view the available functions (input and output parameters) for the EIS.

## The Management Console

The iPlanet Application Server Enterprise Connector for PeopleSoft has an interactive Management Console Tool. This tool is used by the data source administrator to do the following:

- data mine function objects and data types from the EIS metadata, and populate the repository with these data-mined definitions
- administer repository contents for creating new data sources, editing settings, and altering pooling settings
- populate user-mapping tables in the data repository

For more information on the Management Console, see Chapter 3, “Managing Data”.

## The Repository Browser

The Repository Browser allows the user to explore the repository contents. Repository contents are modified/populated using the *import* function. The import function is also available as a browser function and as a command-line tool, and imports XML under a specified repository node. Additionally, the export function is available as a browser function and as a command-line tool and exports a selected subtree as an XML document. For more information on the Repository Browser, see Chapter 3, “Managing Data”.

---

**CAUTION** The Repository Browser should not be used for editing even though import, export, and delete actions on repository nodes are enabled. Only advanced administrators should use the available functions.

---

# National Language Support

Although UIF provides Nation Language Support, the PeopleSoft Message Agent API only supports the ASCII character set. Therefore, NLS entries in the repository cannot be modified.



# Installation

This chapter describes how to install and uninstall the iPlanet Application Server Enterprise Connector for PeopleSoft. The software components installed include the PeopleSoft Enterprise Connector, which is a shared object, and the PeopleSoft Worker, which is an executable file.

This chapter contains information about the following topics:

- Software Prerequisites
- Hardware Requirements
- Installing on Windows NT
- Installing on Solaris
- Upgrading or Reinstalling Issues
- Post Installation Issues

## Software Prerequisites

The following software prerequisites are necessary to install the iPlanet Application Server Enterprise Connector for PeopleSoft:

- the iPlanet Application Server version 6.0 SP1 must be installed
- the iPlanet Application Server Unified Integration (UIF) version 6.0 SP1 must be installed
- the PeopleSoft client software must be installed

- For Windows NT, you must set the environment variable path to include the directory that contains the PeopleSoft client software (psmsg.dll) file.
- One of the following web browsers should be installed:
  - Netscape Communicator 4.5
  - Microsoft Internet Explorer 4.0 (NT only)

---

**CAUTION** The PeopleSoft connector operates with the iPlanet Application Server, therefore it must be installed in the same directory in which the iPlanet Application Server is installed.

---

## Supported PeopleSoft Versions

The iPlanet Application Server Enterprise Connector for PeopleSoft supports PeopleSoft Versions 7.55. and 7.56

# Hardware Requirements

The following hardware requirements are necessary for installing the connectors.

## Computers and Operating Systems

- One of the following operating systems:
  - Microsoft Windows NT version 4.0 with Service Pack 5
  - Sun SPARC running Solaris version 2.6
- Memory Per CPU: 256MB minimum; 512MB recommended.
- Available disk space: 200 MB for Windows NT, 400 MB for Solaris.
- Client library that matches the version of the PeopleSoft Server to which you are connecting.

## Preparing to Install

Before installing the iPlanet Application Server Enterprise connector for PeopleSoft complete the following steps:

- Verify the PeopleSoft Server connectivity.
- Stop the iPlanet Application Server if it is running. Without stopping the application server, the installation program may not be able to overwrite files currently in use.
- Read the *iPlanet Application Server Enterprise Connector for PeopleSoft Release Notes* for any last minute updates, located at <http://docs.iplanet.com/docs/manuals/ias.html>.

## Installing on Windows NT

The following describes the procedures for installing and uninstalling iPlanet Application Server for PeopleSoft on Windows NT.

You must be logged in to Windows NT as the administrator to install the iPlanet Application Server Enterprise Connector for PeopleSoft

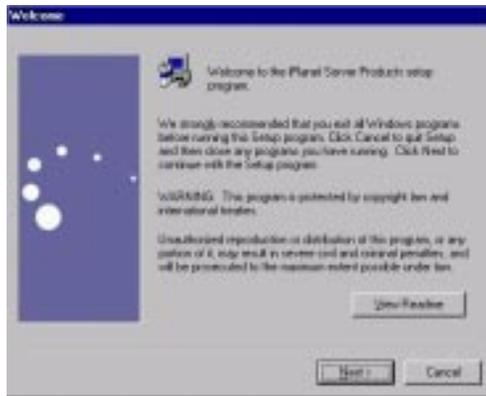
### Pre-installation

1. Insert the iPlanet Application Server Enterprise Connector for PeopleSoft Install CD-ROM into the CD-ROM drive.
2. Read the README.txt file on the CD-ROM.

### To Install on Windows NT

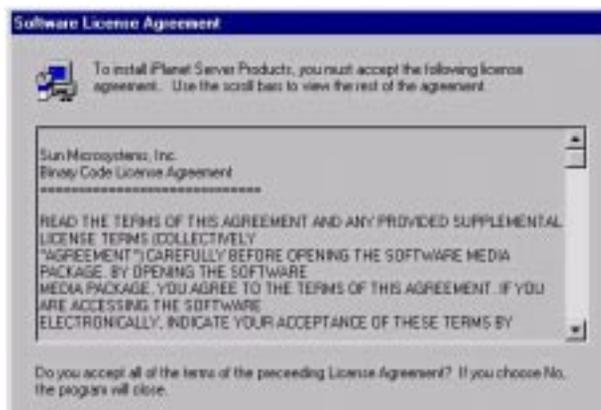
1. Read the README.txt file on the CD-ROM.
2. Copy `NT\inspsft.zip` from the CD-ROM into a temporary local directory.
3. Unzip `inspsft.zip`, then run `setup.exe`.
4. Read the Welcome message and click on the Next button. See Figure 2-1.
5. Follow the instructions on the screen to progress through the introduction.

**Figure 2-1** Welcome Message

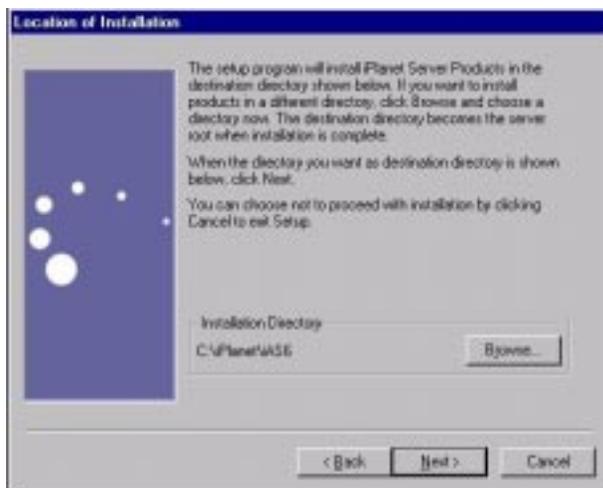


6. Thoroughly read and understand this information before installing, and accept the license agreement. See Figure 2-2.

**Figure 2-2** Software License Agreement



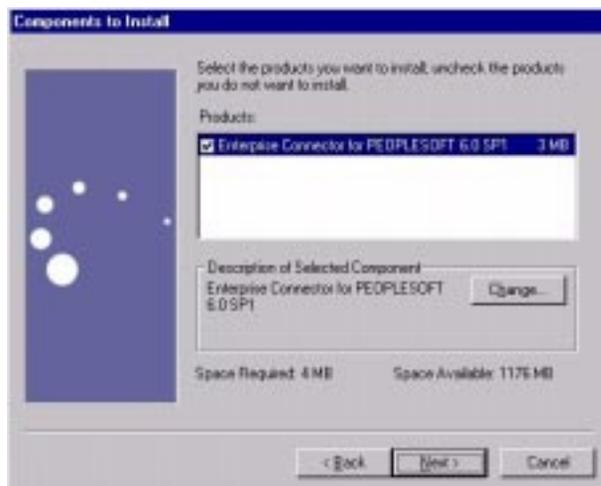
7. Choose your installation directory, then click Next. See Figure 2-3.

**Figure 2-3** Location of Installation


---

**NOTE** You must install the iPlanet Application Server Enterprise Connector for PeopleSoft in the same directory as you installed iPlanet Application Server.

---

**Figure 2-4** Components to Install

8. The Enterprise Connector for PeopleSoft 6.0 SP1 is selected as seen in Figure 2-4. Click Next to continue.

9. Type in your PeopleSoft Host Configuration information, and click Next. See Figure 2-5.

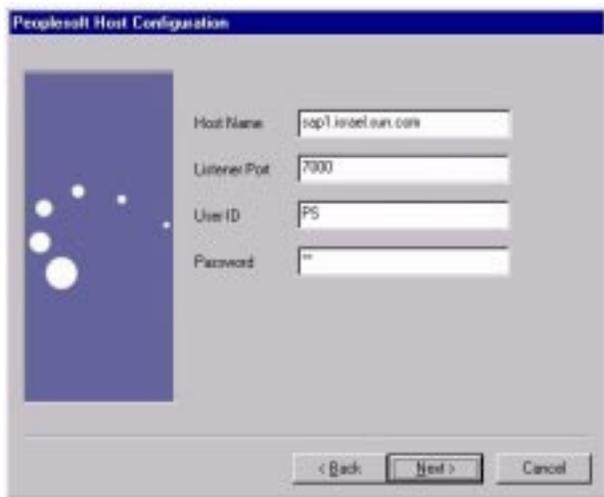
The host configuration information defines the Peoplesoft Host system.

---

**NOTE** The User ID and Password must be in uppercase.

---

**Figure 2-5** PeopleSoft Host Configuration



The screenshot shows a Windows-style dialog box titled "PeopleSoft Host Configuration". On the left is a vertical blue bar with several white circles of varying sizes. To the right of this bar are four text input fields, each with a label to its left: "Host Name" (containing "pop1.jorbel.com"), "Listener Port" (containing "7000"), "User ID" (containing "PS"), and "Password" (containing asterisks). At the bottom of the dialog are three buttons: "< Back", "Next >", and "Cancel".

The Oracle Backend Configuration screen appears. See Figure 2-6.

10. Enter the requested information and click Next.

**Figure 2-6** Oracle Backend Configuration

Host Name	<input type="text" value="lakafat"/>
Listener Port	<input type="text" value="1521"/>
Database SID	<input type="text" value="prod"/>
Service	<input type="text"/>
Type	<input type="text"/>
User ID	<input type="text" value="system"/>
Password	<input type="password" value="*****"/>

< Back   Next >   Cancel

---

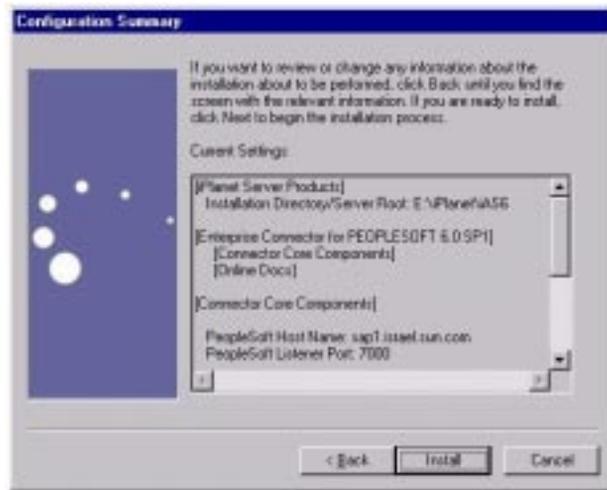
**NOTE** Leave the Service and Type fields blank.

---

The Configuration Summary window appears. See Figure 2-7.

11. Review the Configuration Summary window. If correct, click Install.

**Figure 2-7** Configuration Summary



12. (Optional) Figure 2-8 displays the possible warning window(s) that can appear if the installer detects that the iPlanet Application Server Enterprise Connector for PeopleSoft is already installed. Choose Yes to overwrite the existing adapter type and all sample data source definitions shipped with the PeopleSoft connector. User defined data sources are not overwritten. Select No if you are simply adding another iPlanet Application Server instance to an existing cluster.

Confirm your decision.

**Figure 2-8** Warning Windows

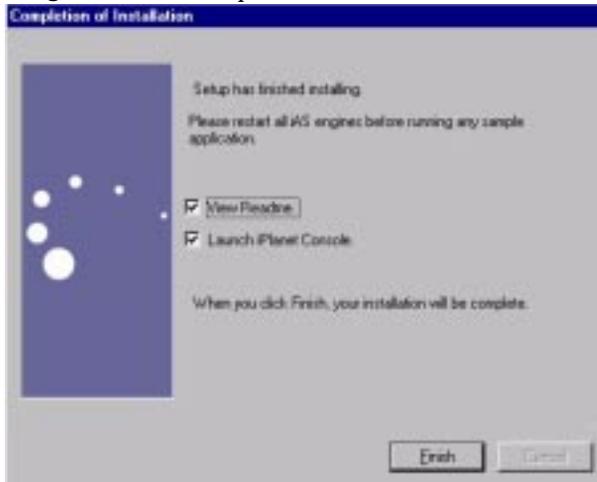
The Completion of Installation Window is displayed as in Figure 2-9.

13. Read the Completion of Installation window which is displayed when all files are installed. Choose from the two options presented, remove any disks from their drives, and click Finish.

The iPlanet Application Server Enterprise Connector for PeopleSoft is now installed.

The machine must be rebooted and start the iPlanet Application Server before using the iPlanet Application Server Enterprise Connector for PeopleSoft.

**Figure 2-9** Completion of Installation



## To Uninstall from Windows NT

1. Select Start > Programs - iPlanet Application Server 6.0 > Uninstaller.  
The iPlanet Uninstall window is displayed. See Figure 2-10.

**Figure 2-10** iPlanet Uninstaller Window



2. Deselect all components for iPlanet Application Server *except* iPlanet Application Server Enterprise Connector for PeopleSoft, then click Uninstall.

The uninstaller checks for dependencies between subcomponents and the main component. If you try to deselect a component and its subcomponent are toggled on, a warning message appears.

### To Deselect the Enterprise Connector for PeopleSoft

Deselect items in the following order:

1. Deselect Netscape Server Family Core components.
2. Deselect Administration Services.
3. Deselect Netscape Directory Suite.
4. Deselect UIF 6.0 SP1.

### To Deselect the iPlanet Application Server

Deselect items as follows:

1. Highlight the iPlanet Application Server 6.0 SP1 entry.

2. Click the Sub Components button to display the options.

Deselect options in the following order:

3. Deselect Application Server 6.0 Core Binaries.
4. Deselect Administrator Tool.
5. Deselect Web Connector Plug-in Component.
6. Deselect Deployment Tool.
7. Deselect Core Server Component.

Click the Continue button to return to the main uninstall menu.

---

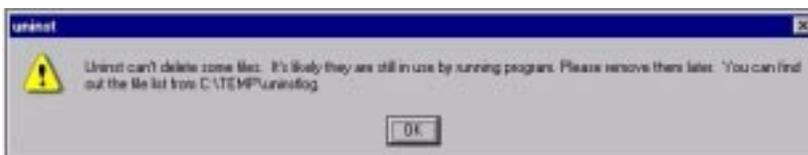
**CAUTION** If you do not follow the order of deselection above, alert messages are displayed and you may not be able to deselect the desired option

---

8. Click Uninstall.

A message is displayed. See Figure 2-11.

**Figure 2-11** Uninstall Message



9. Click OK to complete the uninstallation procedure.

## Installing on Solaris

The following procedures describe how to install and uninstall the iPlanet Application Server Enterprise Connector for PeopleSoft on a Solaris Operating System.

### Pre-installation

1. Insert the iPlanet Application Server Enterprise Connector for PeopleSoft Install CD-ROM into the CD-ROM drive.

2. Mount the CD-ROM, for example, `/cdrom/cdrom0`.
3. Read the `README.txt` file on the CD-ROM.

## To Install on Solaris

1. Copy the `Solaris/inspsft.tar` file from the CD-ROM into a temporary local directory.
2. Untar the `inspsft.tar` file.

For example: `tar -xvf inspsft.tar`

3. Run the `./setup` command

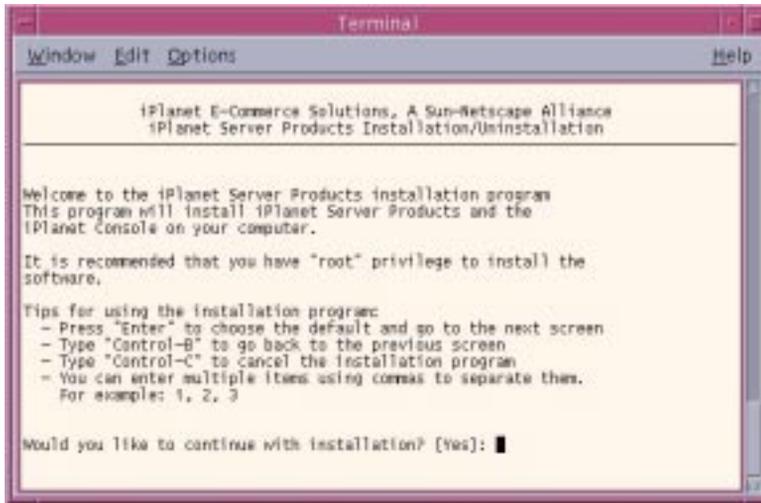
Follow the instructions of the installation program. During installation, press the following key sequences for:

`CTRL+B` to back up to the previous screen.

`CTRL+C` to cancel the installation program. This results in an incomplete installation. To install again, rerun the installation program from the beginning.

4. Figure 2-12 is displayed. Either press enter or type Yes to continue.

**Figure 2-12** Welcome Message



5. Enter Yes.

Figure 2-13 is displayed.

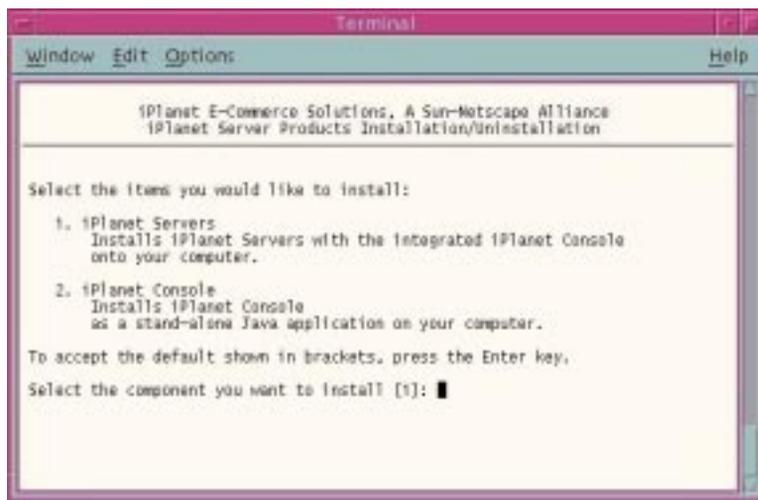
**Figure 2-13** License



6. Thoroughly read and understand the license information before installing.  
Enter Yes.

Figure 2-14 is displayed.

**Figure 2-14** Component Selection



7. Press Enter.

---

**NOTE** The iPlanet Application Server and UIF must already be resident on your system. You must perform this step to proceed with the connector installation.

---

Figure 2-15 is displayed.

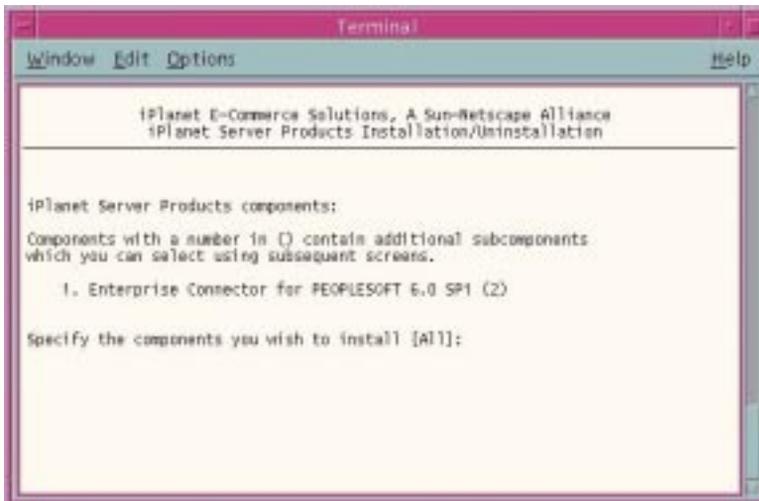
**Figure 2-15** Location of Installation



8. To accept the default shown in the brackets, press Enter.

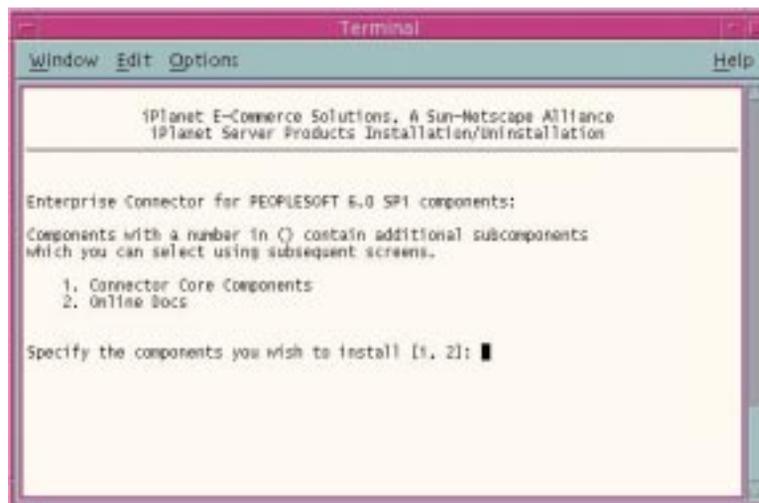
Otherwise, enter in the iPlanet Application Server installation directory, and press Enter.

Figure 2-16 is displayed.

**Figure 2-16** Components to Install

9. Press Enter.

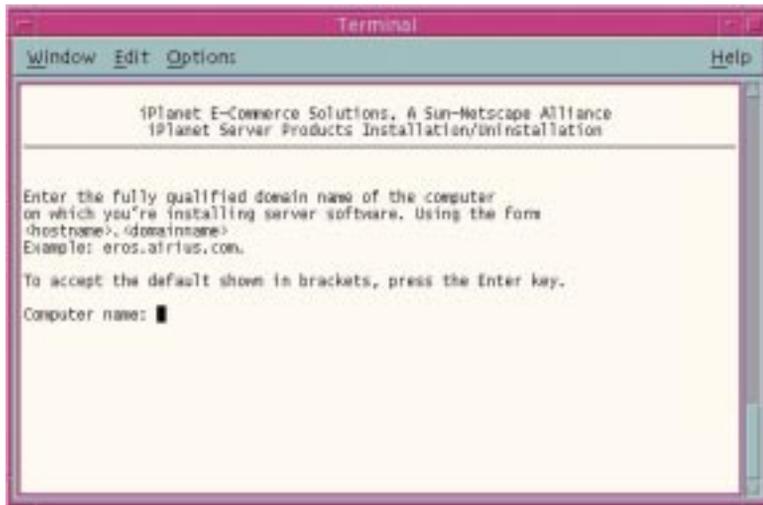
Figure 2-17 is displayed.

**Figure 2-17** Additional Components

10. Press Enter.

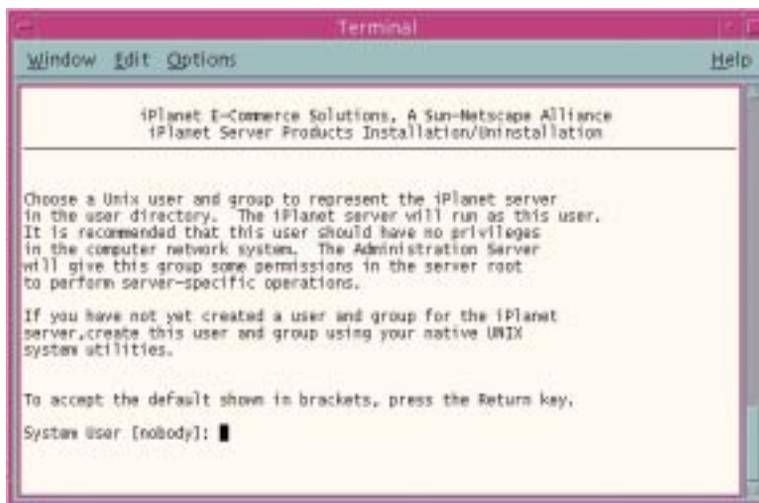
Figure 2-18 is displayed.

**Figure 2-18** Computer Name Selection



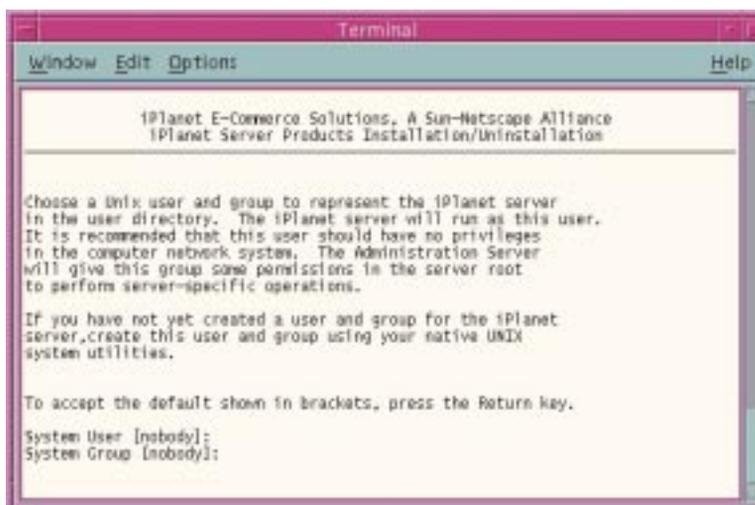
11. Press Enter to accept the default or enter another name <host.domain.com>.

Figure 2-19 is displayed.

**Figure 2-19** System User Selection

12. To accept the default shown in brackets, press Enter.

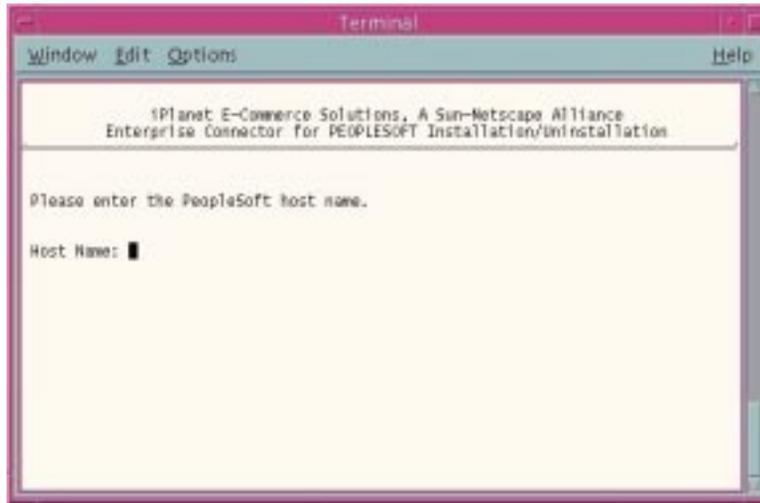
Figure 2-20 is displayed.

**Figure 2-20** System Group

13. To accept the default shown in brackets, press Enter.

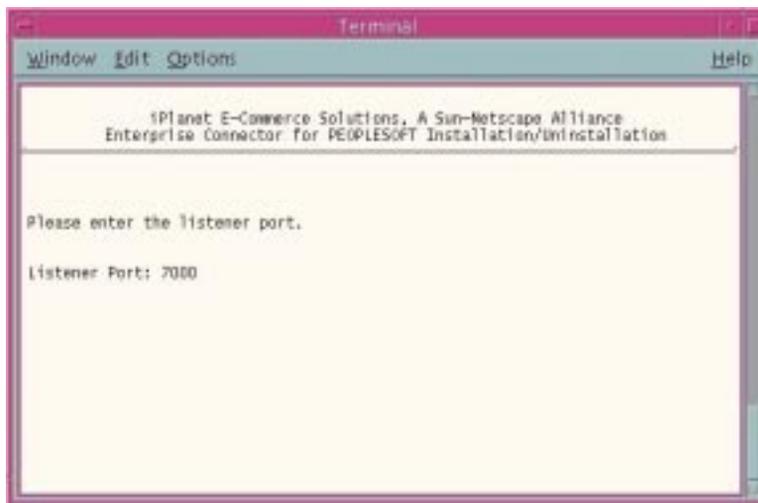
Figure 2-21 is displayed.

**Figure 2-21** PeopleSoft Host Name



**14.** Enter the Host Name.

Figure 2-22 is displayed.

**Figure 2-22** Listener Port

15. Enter in the Listener Port.

Figure 2-23 is displayed.

**Figure 2-23** User ID



16. Enter the User ID.

Figure 2-24 is displayed.

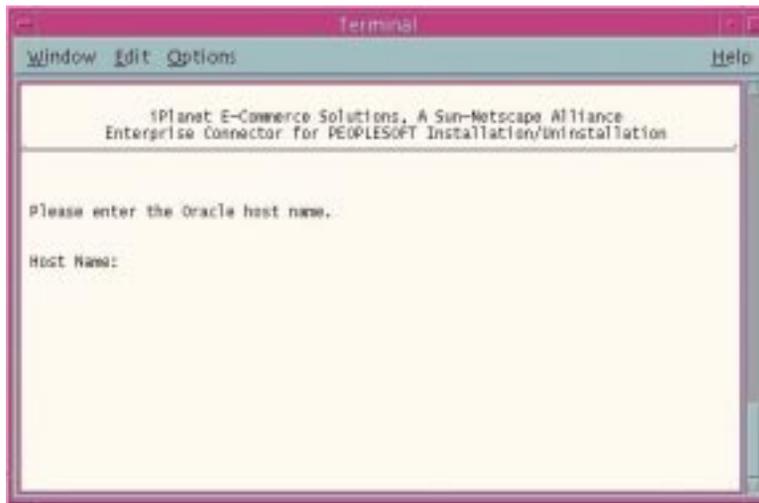
**Figure 2-24** Password



17. Enter the Password.

Figure 2-25. is displayed

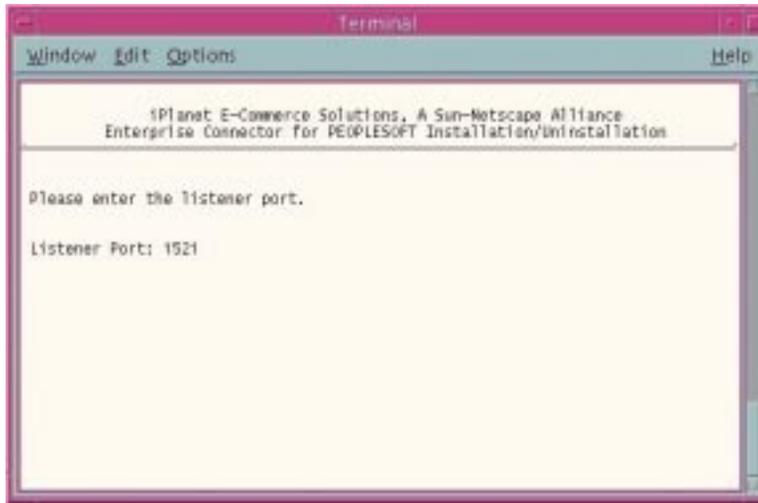
**Figure 2-25** Oracle Host Name



**18.** Enter the Oracle Host Name.

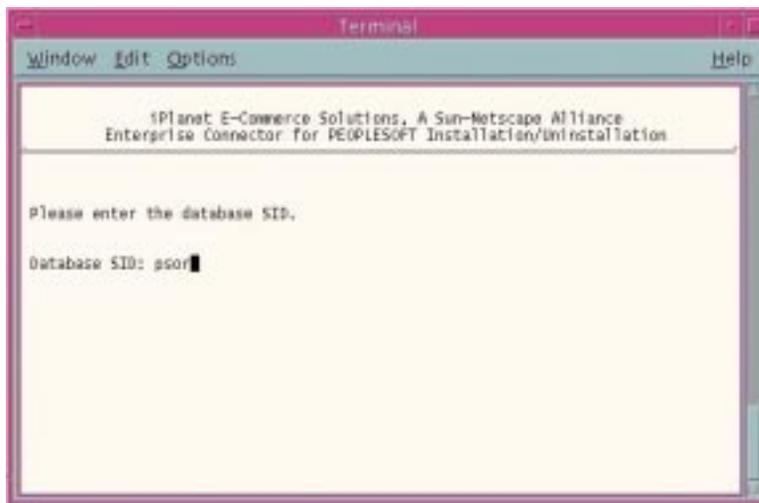
Figure 2-26 is displayed.

**Figure 2-26** Oracle Listener Port



**19.** Enter the Oracle Listener Port.

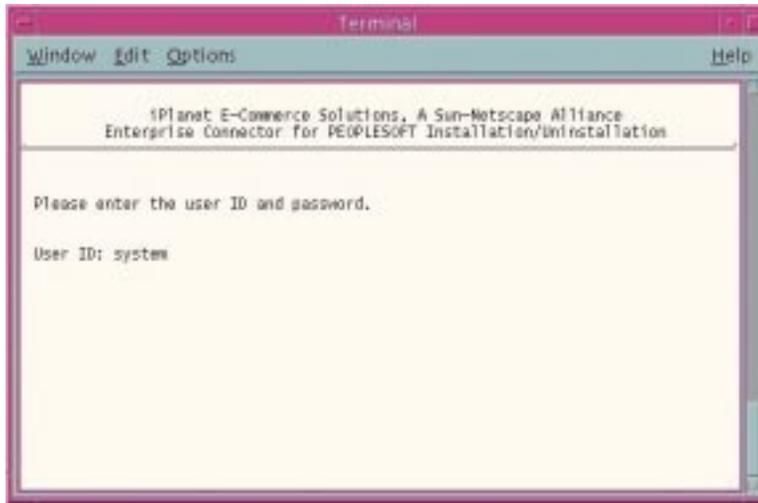
Figure 2-27 is displayed.

**Figure 2-27** Database SID

20. Enter the database SID.

Figure 2-30 is displayed.

**Figure 2-28** User ID



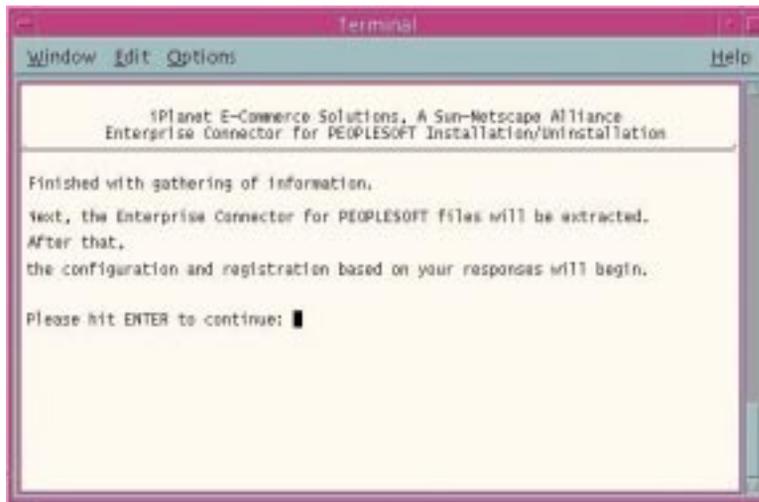
**21. Enter the User ID.**

Figure 2-29 is displayed.

**Figure 2-29** User Password

22. Enter the Password.

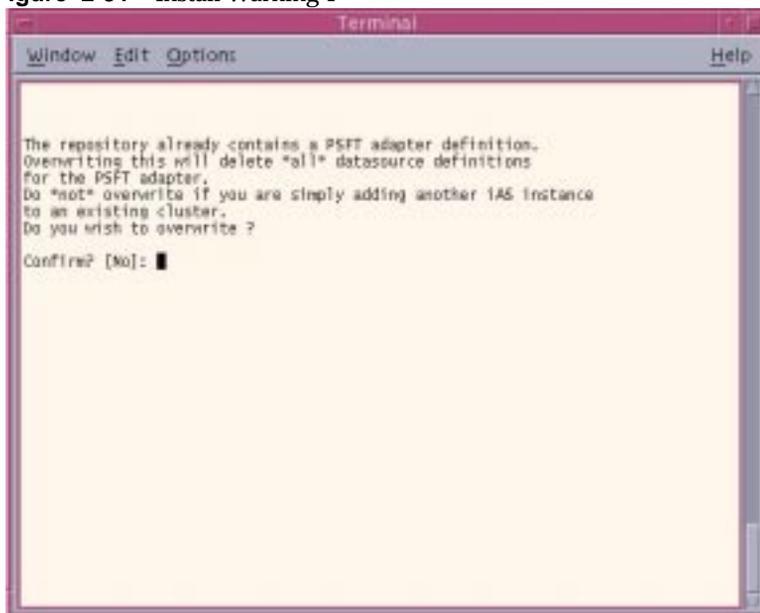
Figure 2-30 is displayed.

**Figure 2-30** Summation

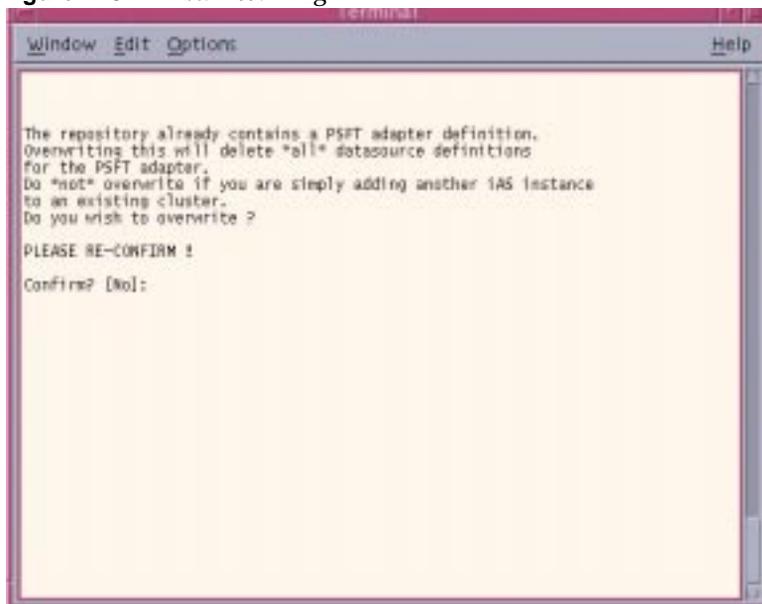
23. Press Enter to continue.

24. Warning window(s) as displayed in Figure 2-31 and Figure 2-32 may appear if the installer detects that the iPlanet Application Server Enterprise Connector for PeopleSoft is already installed. Choose Yes to overwrite the existing adapter type and all sample data source definitions shipped with the PeopleSoft connector. User defined data sources are not overwritten. Select No if you are simply adding another iPlanet Application Server instance to an existing cluster.

**Figure 2-31** Install Warning 1



25. Confirm your decision as shown in Figure 2-32.

**Figure 2-32** Install Warning 2

---

**NOTE** After successful installation on Solaris, you can run the samples. Refer to *Chapter 4* in the *iPlanet Application Server Enterprise Connector for PeopleSoft Developer's Guide*.

---

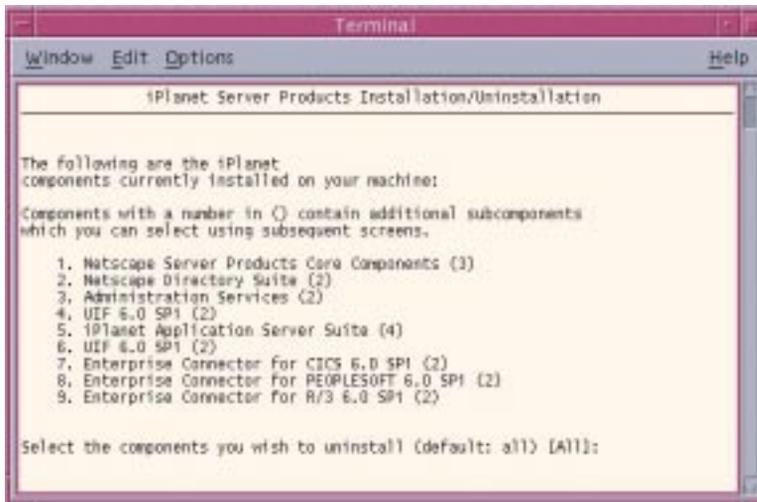
## To Uninstall from Solaris

1. Go to the installation directory, `/user/iplanet/ias6`, and enter the following command:

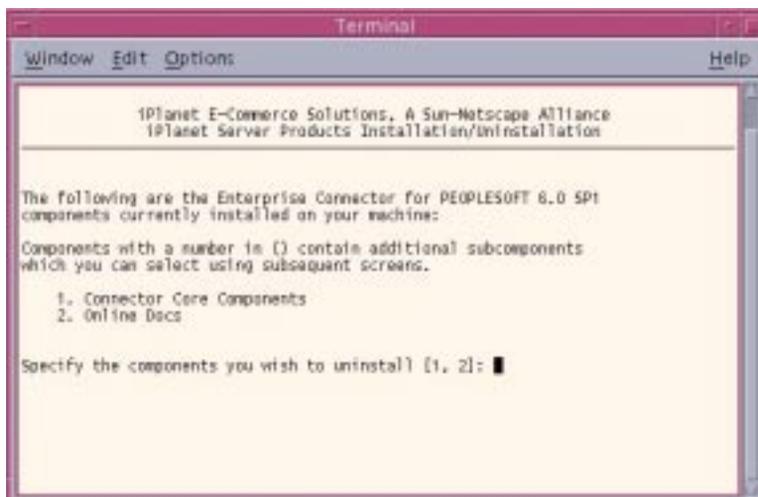
```
./uninstall
```

Figure 2-33 is displayed.

**Figure 2-33** Uninstall Window 1



2. Select the specific product components you want to uninstall and press Enter. Figure 2-34 is displayed.

**Figure 2-34** Uninstall Window 2

3. Select the specific product components you want to uninstall and press Enter.

The iPlanet Application Server Enterprise Connector for PeopleSoft is now uninstalled.

## Upgrading or Reinstalling Issues

If upgrading an earlier version or reinstalling the current version of the iPlanet Application Server Enterprise Connector for PeopleSoft, the installation procedure overwrites the currently installed files. Uninstalling the current version is not required.

Installation of multiple enterprise connectors for multiple EISs (CICS, Tuxedo, and R/3) on the same iPlanet Application Server is allowed.

---

**NOTE** To avoid problems with overwriting files in use, stop the iPlanet Application Server before installing any new software. Always backup the current files prior to installation including the UIF Repository content.

---

# Post Installation Issues

The following issues are described:

- Activating the Samples through NT or Solaris
- Copying Files in Webless Installation
- Launching the Daemon
- Editing Scripts

## Activating the Samples through NT or Solaris

After installing the iPlanet Application Server enterprise Connector for PeopleSoft you can verify that your installation succeeded and run the PeopleSoft samples provided.

You can activate PeopleSoft programs that access the PeopleSoft management system by entering a series of commands through your operating system. For more information on how to activate and run the PeopleSoft samples, see Chapter 4 of the *iPlanet Application Server Enterprise Connector for PeopleSoft Developer's Guide*.

## Copying Files in Webless Installation

In a webless installation, the web server and iPlanet Application Server reside on separate machine. In this configuration mode, the iPlanet Application Server Enterprise Connector for PeopleSoft installation procedure will not automatically copy the index.html file pertaining to connector samples to web server document root directory.

To run the samples shipped with the iPlanet Application Server Enterprise Connector for PeopleSoft, an index.html file must be copied manually from the iPlanet Application Server instance to web server instance.

## To Copy Files to Run the Program Samples

1. Create the `psftSamples` directory under the web server document root directory.

For example, `<iWS installdir>/docs/psftSamples`.

2. Copy the `index.html` file from `<iASrootdir>/ias/APPS/adapters/htmldocs/psft/psftSamples` directory to `<iWS installdir>/docs/psftSamples` directory on web server machine.

## Launching the Daemon

To start working with the iPlanet Application Server Enterprise Connector for PeopleSoft, you must run the *startpsftworker* process. The *startpsftworker* process invokes the daemon. See “High-level System Architecture” on page 21.

## To Launch the Daemon

- At the terminal prompt enter the following command line:  

```
startpsftworker.sh start
```

or
- on Windows NT, select Start > iPlanet Application Server 6.0 > PEOPLESOFT Connector 6.0 > Start Worker Process.

## Editing Scripts

The following two scripts should be edited after installing the iPlanet Application Server Enterprise Connector for PeopleSoft:

- `startpsftworker.sh`
- `psconsole.sh`

## To Edit the startpsftworker.sh Script

1. Add the directory of the PeopleSoft client software to the `LD_LIBRARY_PATH` variable.

If for example the

```
LD_LIBRARY_PATH =/installeddias/iplanet/ias/ias6/APPS/bin
```

and the PeopleSoft client software is located in the same root directory in the `ps` folder,

add the following

```
LD_LIBRARY_PATH  
=/installeddias/ias6/ias/APPS/bin:installeddias/iplanet/ias6/ias/  
APPS/bin/ps
```

2. Add the following two lines to the script:

```
PS_HOME=/installeddias/iplanet/ias6/ias/APPS/bin/ps
```

(This is the same path added to the `LD_LIBRARY_PATH` variable.)

```
export PS_HOME
```

## To Edit the psconsole.sh Script

1. Add the following two lines to the `psconsole.sh` script:

```
PS_HOME=/installeddias/iplanet/ias6/ias/APPS/bin/ps
```

(This is the same path added to the `LD_LIBRARY_PATH` variable.)

```
export PS_HOME
```

2. Add the directory of the PeopleSoft client software.

For example, if the client software is located in the `ps` folder, where the iAS is installed, add the following line:

```
LD_LIBRARY_PATH=installeddias/iplanet/ias6/ias/APPS/bin/ps
```

# Managing Data

This chapter describes how to use the Management Console and the Repository Browser to manage and view your data.

This chapter contains information about the following topics:

- The Management Console
- The Repository Browser

## The Management Console

Each connector has an interactive Management Console Tool. The Management Console is typically used by the data source administrator and consists of two groups of functions:

- Tasks that are used to process data and functions from Enterprise System metadata:
  - data mining
  - creating and editing new data sources
- User management that establishes relationships between the web and back-end users.

## To Start the Management Console from Windows NT

- Select Start>Programs>iPlanet Application Server 6.0>PEOPLESOFT Connector 6.0- Management Console.

## To Start the Management Console from Solaris

1. Enter the following directory:

```
cd <iPlanet>/ias/APPS/bin
```

2. Enter the following command:

```
psftconsole.sh
```

**Figure 3-1** PeopleSoft Management Console



## Management Console Functions

The Tasks tab is used to perform the following tasks:

- Data Mining
- Create New Data Source
- Edit Data Source

The PeopleSoft User Mapping Management tab is used to perform the following task:

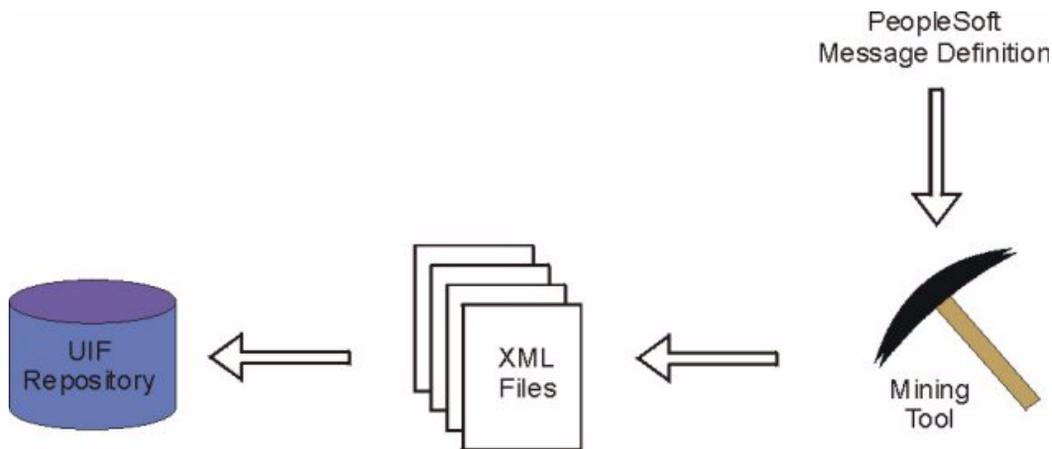
- Mapping User Privileges

The Mapping User Privileges function enables you to group users by mapping web-users to PeopleSoft users.

## The Data Mining Tool

The Data Mining Tool uses a common cross-platform format, eXtensible Markup Language (XML), to populate the repository by taking back-end information and converting it to XML. The XML is then stored in the UIF Repository in a specific structure. See Figure 3-2.

**Figure 3-2** Mining Tool



The Data Mining Tool enables you to examine or analyze data and extract functions and parameters from the back-end system. The iPlanet Application Server user can then utilize (call) these functions. The elements of the Data Mining Tool are shown in Figure 3-2.

**Figure 3-3** Data Mining Elements



The Data Mining Tool uses a search criteria to query the PeopleSoft system. You then select a function or multiple functions to be mined. Based on your search criteria, data is extracted from the PeopleSoft system, converted to XML file(s), and loaded into the data repository.

### Data Mining Processes

The following lists the processes that are part of the Data Mining Tool:

- Choosing the Data Source
- Choosing and Converting the PeopleSoft Message Definition

## Accessing the Data Mining Tool

The Data Mining Tool in the iPlanet Application Server Enterprise Connector for PeopleSoft is accessed through the Management Console.

## To Start the Data Mining Tool

1. Enter the PeopleSoft Management Console as described in The Management Console.
2. In the Tasks tab, select the Data Mining icon. Figure 3-4 is displayed.

**Figure 3-4** Choose Data Source Window

### Choosing the Data Source

The data source contains all the information needed to connect to the PeopleSoft system, and stores all the function objects.

### To Choose the Data Source

1. Select the data source from the list.

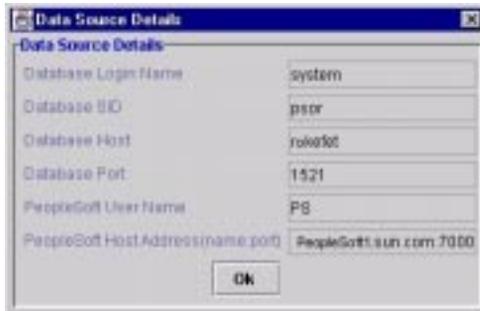
For information about the data source that the Data Mining Tool accesses, click Details.

2. If you do not want to view the data source details, continue to Editing a Data Source.

### *DataSource Details*

The DataSource Details window contains a description of the data source as seen in Figure 3-5.

**Figure 3-5** DataSource Details Window



The DataSource Details window contains information in read only view.

Table 3-1 lists and defines fields in the DataSource Details window.

**Table 3-1** DataSource Details Window

Parameter	Definition
Database Login Name	Login name for the database.
Database SID	Database special identity number.
Database Host	Name of the computer where the database host is located.
Database Port	Database port that is listening.
PeopleSoft User Name	User name assigned by the PeopleSoft administrator for the PeopleSoft system.
PeopleSoft Host Address (name:port)	The name of the computer where PeopleSoft system resides, and the port number.

The Query Results window appears as in Figure 3-6.

### Choosing and Converting the PeopleSoft Message Definition

The Query Results window lists the activity name and the input name of the PeopleSoft Message Definition as seen in Figure 3-6.

The following procedure converts the PeopleSoft Message Definition to an XML file and loads it into the repository.

Figure 3-6 Query Results Window

Activity Name	Input Name
Absence Setup	my application
Absence Setup	mytest1
Add Employee	AddEmployee
Item Length	LengthDef
Maintain Course	rticy
My_Test	AddEmp
My_Test	SEARCH
My_Test	UpdEmp
Nas CareerPath	NasJobTable
Nas CareerPath	NasTrainingProgram
Nas Catalogand	NasEmployeeTrainingCost
Nas CreatePlaningPeriods	NasCompanyDefaults
Nas Define Demand	NasDefineEEDemandbyCourse
Nas Define Demand	NasDefineEmployeeDemand
Nas Define Demand	NasDefineGeneralDemand
Nas Define Demand	NasDefineProfileDirectly
Nas General Setup	NasCostUnitTable
Nas General Setup	NasDefineBaseCurrency
Nas General Setup	NasDefineBudgetPeriod
Nas General Setup	NasDefineDepartmentalView
Nas General Setup	NasManageDepartmentBudget
Nas Maintain SalaryTable	NasDefaultGradeForJobCode
Nas Maintain SalaryTable	NasDefaultPlanForLocation
Nas Maintain SalaryTable	NasRatingScale
Nas Maintain SalaryTable	NasSalaryAdminPlan
Nas Maintain SalaryTable	NasSalaryGrade
Nas Maintain Budget	NasDepartmentBudget
Nas Maintain Position	NasPositionData
Nas Maintain Position	NasPositionDataSummary
Nas Maintain Position	NasPositionHistory

### To Choose and Convert the PeopleSoft Message Definition to an XML File and Load it to the Repository

1. From the Query Results window highlight an Activity Name or Input Name (multiples allowed).
2. Click Convert.

The following activities occur:

- the selected names are loaded into the repository
- an XML file is created

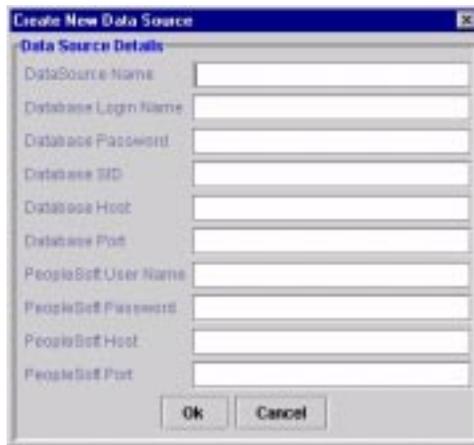
## Creating a New Data Source

The data source contains all the information needed to connect to the PeopleSoft system, and stores all the function objects. In addition, the data source determines which system to mine, and where to place the function objects.

### To Create a New Data Source

1. On the PeopleSoft Management Console, click the Create New Data source icon to display the Create New Data Source details window as seen in Figure 3-7.

**Figure 3-7** Create New Data Source dialog box



The Create New Data Source dialog box contains data source details parameters, see Table 3-1, that can be edited. For a description of the parameters see DataSource Details.

2. Change the values as necessary and click OK.

A new data source is created and a message displays informing you that must restart the Management Console to use the newly created data source. See Figure 3-8.

**Figure 3-8** New Data Source Information Message

3. Click OK, and manually restart the Management Console.

## Editing a Data Source

This option is used to edit an existing data source.

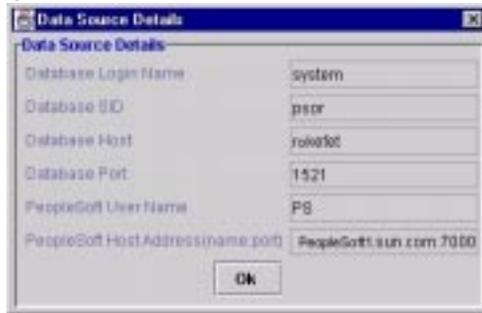
## To Edit a Data Source

1. Click the Edit Source. Figure 3-9 is displayed.

**Figure 3-9** Choose Data Source

2. Select the Data source and click OK. The Data Source Details window is displayed as shown in Figure 3-10.

**Figure 3-10** Edit Data Source Window.



3. Type changes in the text boxes and click OK.  
The changes are made in the repository.
4. Restart the Management Console.

## Mapping User Privileges

The PeopleSoft User Management function enables the administrator to assign access privileges to the back-end system. There are two separate user identity domains: Web users and Enterprise System users. An incoming request has a specific web user identity associated with it. The web identity needs to be mapped to a PeopleSoft user identity specific to the data source.

The mapped web identity is passed between client and server, which the connector then uses for interaction with PeopleSoft.

The user mapping service maintains user mapping tables. There are two distinct tables:

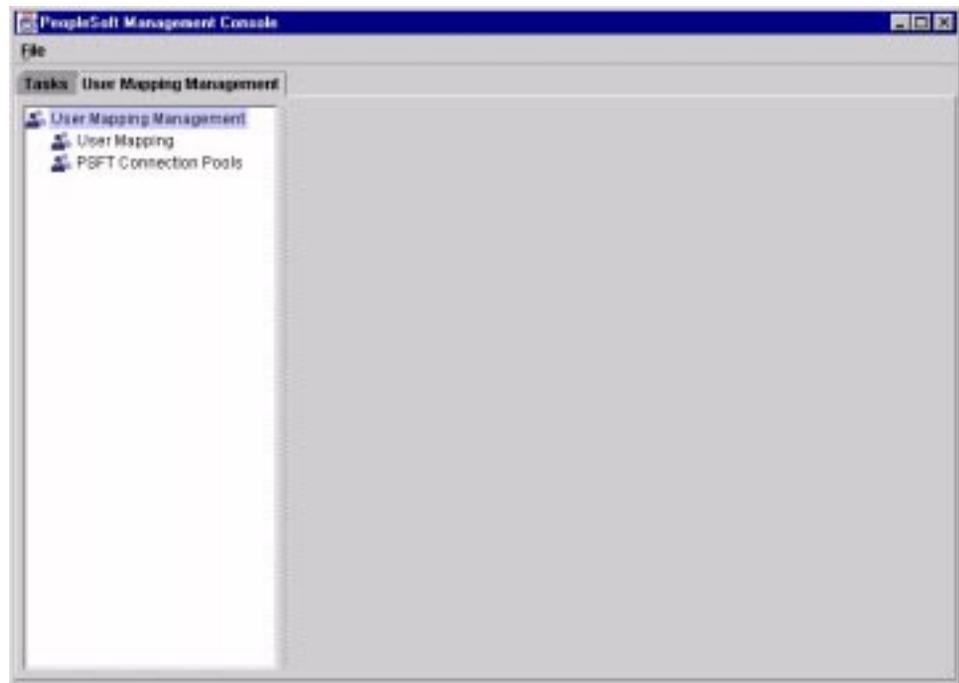
- Enterprise System user identities
- Web to Enterprise System mappings

The mapping service provides the connector with methods to determine the Enterprise System identity, given a web-identity, as per the mapping tables opened using the Management Console. The Enterprise System user table is populated using the Data Mining Tool in the Management Console. The data source administrator can populate the user mapping table interactively, through the Management Console.

## To Perform User Mapping

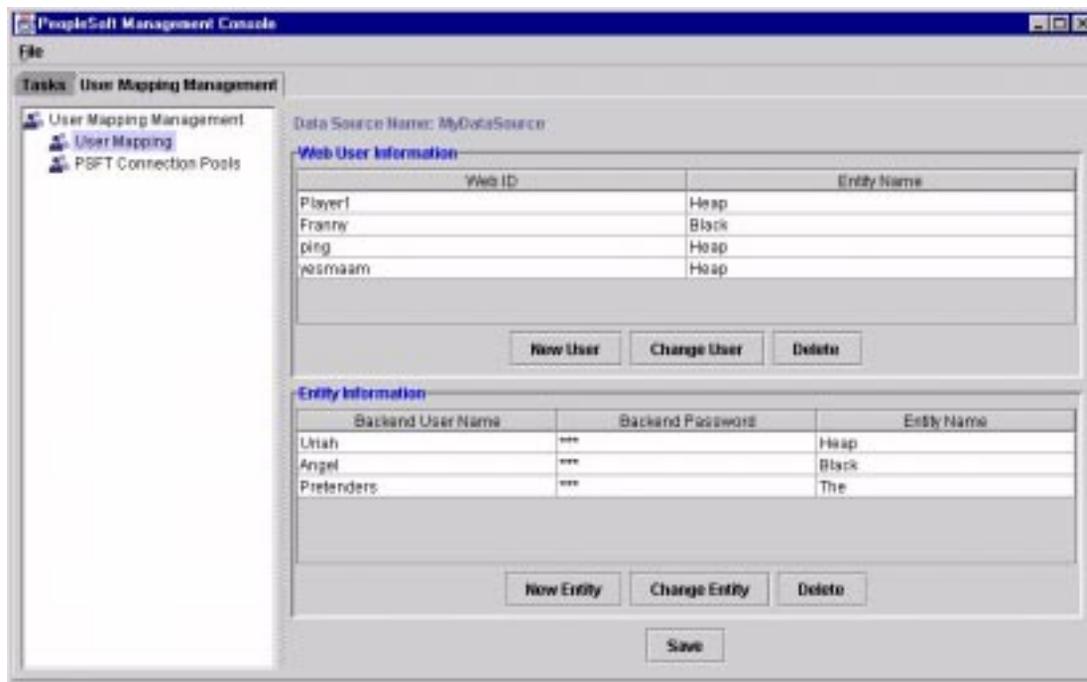
1. From the PeopleSoft Management Console window, click the User Mapping Management tab. See Figure 3-11.

**Figure 3-11** PeopleSoft User Mapping Management window.



2. Click on the User Mapping node. Figure 3-12 is displayed.

Figure 3-12 PeopleSoft User Mapping Management Tab



The tree view represents the general topics available. The browser view displays the details of the node selected. The Choose Data Source Window is displayed.

3. Select a data source.

The Web and Entity Information appear for the selected data source.

Using the Web User Information area you can:

- Add a new user
- Change a user
- Delete a user

Using the Entity Information area you can:

- Add a new entity
- Change an entity
- Delete an entity

To save your changes, click Save.

---

**NOTE** The Save feature saves the information to the repository for both tabbed panes.

---

## Web User Information

The Web User Information area is used to map a web user identity to a back-end user identity. The administrator assigns an entity name for the web users. The Web ID is used by the server to enable users to move freely across multiple systems. The administrator assigns Entity Information prior to the Web User Information, since the web user must be mapped to an entity.

Table 3-2 lists and defines fields in the Web User Information area. See Figure 3-13.

**Table 3-2** Web User Information Parameters

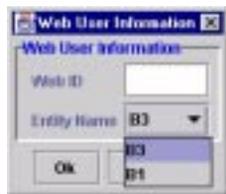
Parameter Name	Definition
Web ID	ID assigned to users on the system.
Entity Name	Name of the assigned back-end user. The naming convention is dependent upon the database type used.

## To Add a Web User

1. Click New User.

The Web User Information window is displayed. See Figure 3-13

**Figure 3-13** Web User Information Window



2. Type in the Web ID.
3. Select an Entity Name from the available names.
4. Click OK when finished to return to the main window.

## To Change a Web User

1. Click Change User.

The Web User Information window appears. See Figure 3-13.

2. Edit the desired field.
3. Click OK when finished to return to the main window.

## To Delete a Web User

1. Select the web user.
2. Click Delete.

The web user is deleted and you are returned to the main window.

## Entity Information

The Entity Information area is used to list the following data about backend entities assigned to the web users:

**Table 3-3** Entity Information

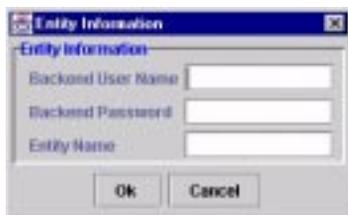
Parameter	Definition
Backend User Name	Name of the backend user.
Backend Password	Backend password, assigned by the user.
Entity Name	Backend entity name, assigned by the system administrator.

## To Add an Entity

1. To add a new backend entity, click New Entity.

The Entity Information window appears. See Figure 3-14.

**Figure 3-14** Entity Information Window

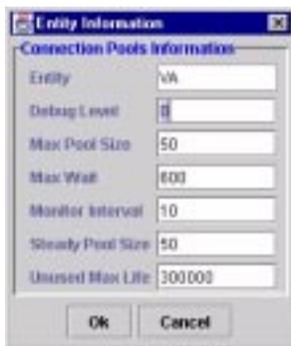


2. Enter the entity information.

3. Click OK.

The Entity Information appears. See Figure 3-15.

**Figure 3-15** Entity Information/Connection Pools Information Window



4. Enter the Connection Pools information.

Table 3-4 lists and describes the fields in the Connection Pools area.

**Table 3-4** Connection Pools

Parameter	Definition
Entity	Name of the entity regarding this pool.
Debug Level	(Optional) Determines type of message logging, as described by the following choices: 0: Logging turned off. 1: Logs only callback messages. 2: Logs all messages.
Max Pool Size	Maximum number of connections in the pool.
Max Wait	Maximum interval time set that the connection pool waits in between connections.
Monitor Interval	Time period set between monitoring the connection pool.
Steady Pool Size	The desired number of connectors available at any one time.
Unused Max Life	Time interval set for an unused connection. When the set time has elapsed, the connection is closed.

5. Click OK to return to the main window.
6. Enter the Entity information and click OK.

The new entity information appears in the Entity Information area.

### To Change Entity Information

1. Click Change Entity.
2. Edit the desired field(s).
3. Click OK.

The edited entity is displayed in the Entity Information area of the window.

### To Delete an Entity

1. Select the entity.
2. Click Delete.

---

**NOTE** You cannot delete an entity that has associated web users. Change or delete the web users before trying to delete an entity.

---

When you have completed all actions in the Entity Information window, click Save. All your additions and changes are saved to the system.

## Connection Pools

The PSFT Connection Pools option in the PeopleSoft User Management function allows the administrator to change the pooling configuration for entities. See Figure 3-16.

Figure 3-16 PeopleSoft Management Console Connection Pools Information

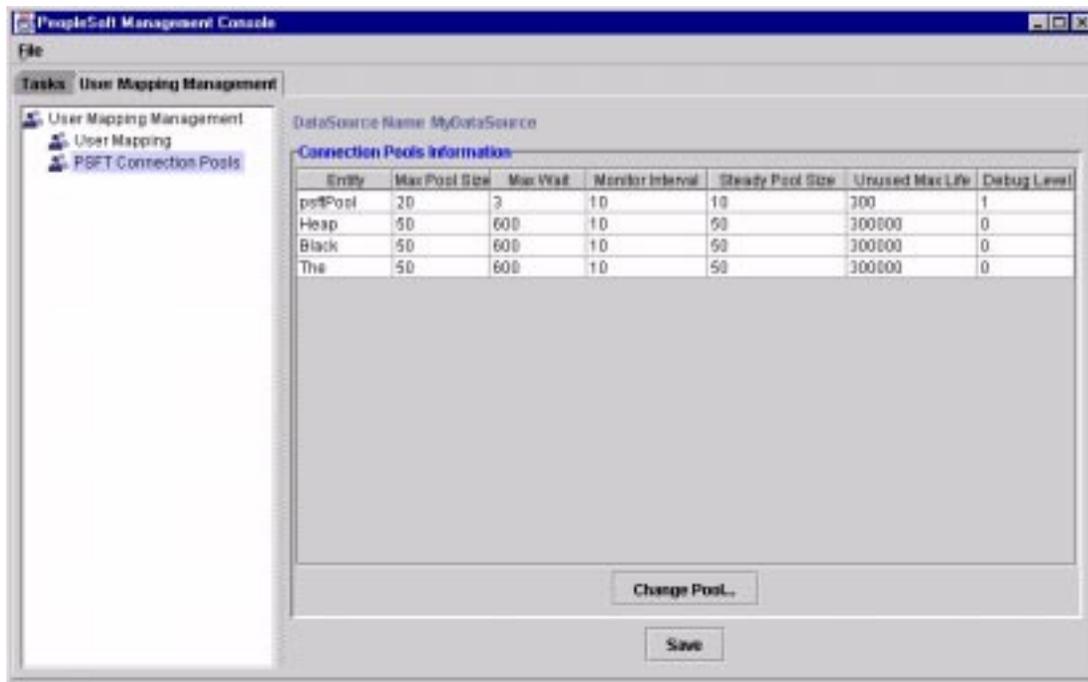


Table 3-5 lists and describes the Connection Pool Parameters:

**Table 3-5** Connection Pool Parameters

Parameter	Description
Entity	Name of entity for whom these parameters apply.
Max Pool Size	Maximum number of connections in the pool.
Max Wait	Interval time set that the connection pool waits in between connections.
Monitor Interval	Time period set between monitoring the connection pool.
Steady Pool Size	The desired number of connectors available at any one time.

**Table 3-5** Connection Pool Parameters

Unused Max Life	Time interval set for an unused connection. When the set time is elapsed, the connection is closed.
Debug Level	Determines type of message logging, as described by the following choices: 0: Logging turned off 1: Logs only callback messages. 2: Logs all messages.

See Chapter 4 for more information about pooling.

## To Change Pool Parameters

1. On User Mapping Management Tab, click on the PSFT Connection Pools node.
2. Click on any cell; the row is automatically selected, or click Change Pool.  
The Entity Information/Connection Pools Information is displayed as in Figure 3-15.
3. Edit the parameter(s) and click OK to return to the PSFT Connection Pools window in the PeopleSoft Management Console as seen in Figure 3-16.
4. Click Save in the Management Console window.

## The Repository Browser

All the definitions for the connector using the Management Console are saved in a repository. The Repository Browser is the Graphical User Interface to the repository and is used only for viewing information about the connector. Most management tasks are done using the Management Console.

The Repository Browser contains the following:

- information representing the connection to the back-end system
- all the function objects that you mine from the back-end system
- user mapping information
- connection pools

All of these components are part of a data source.

Although the repository service does not impose any specific organization (schematics) on the repository contents, the UIF runtime requires the contents of the repository to be organized in a specific and well defined way. This organization is the UIF repository schematics. The UIF runtime expects specific information in specific places in the repository hierarchy. Therefore, repository contents are not supposed to be arbitrarily modified by the user. Contents are modified as part of the specific administration activities controlled by the Management Console, which allows the administrator to use the import and export functions appropriately. In addition, the UIF runtime service runs a consistency check on repository contents at startup.

## Repository Browser Functions

The following functions are available in the Repository Browser:

- Import — allows you import XML files into the repository
- Export — allows you export XML files from the repository
- Delete — deletes nodes from the data structure in the repository
- Refresh — refreshes the Repository Browser display
- Import Root — imports an XML file and creates the root node

## Loading Data Into the Repository Browser

There are two ways to load data into the Repository Browser. You can either load the data automatically into the Repository Browser via the Management Console, or you can manually load the XML file using the Import function.

## To Access the UIF Repository Browser from Windows NT

- Select Start > Programs> iPlanet Application Server > iAS UIF 6.0 Repository Browser

The Repository Browser is displayed. See Figure 3-17.

## To Access the UIF Repository Browser from Solaris

1. Enter the following command line:

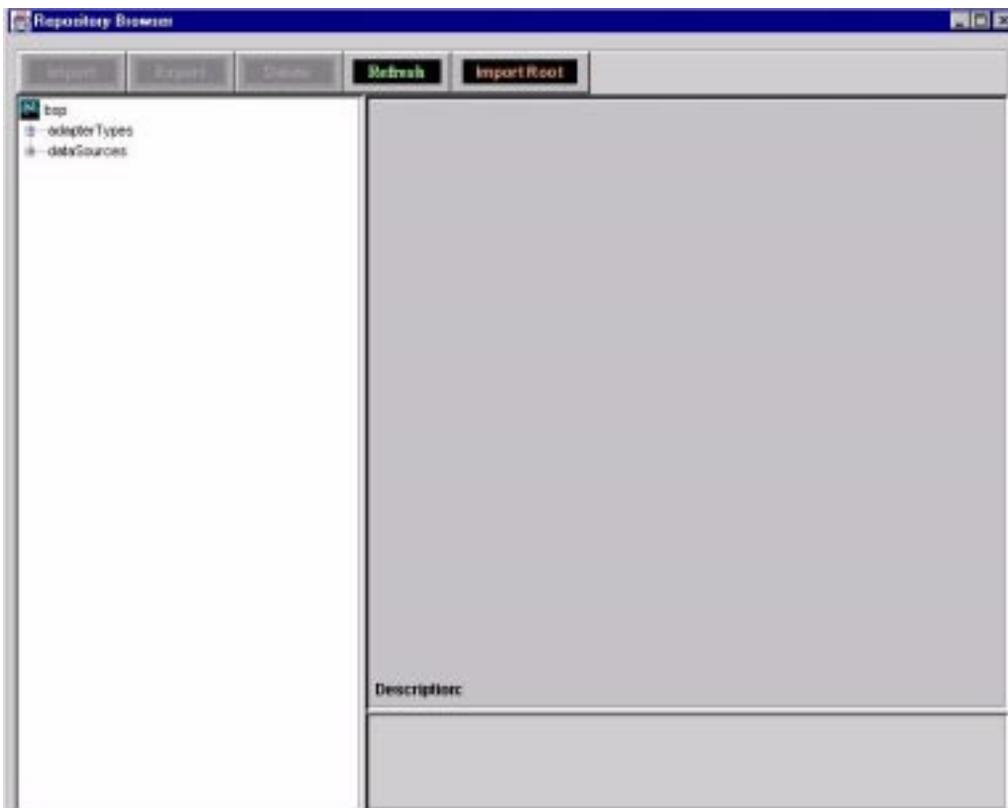
```
cd iplanet/ias6/ias/APPS/bin
```

2. Enter the following:

```
./bspbrowser.sh
```

The Repository Browser is displayed. See Figure 3-17.

Figure 3-17 Repository Browser



The Repository Browser is divided into two panes. When you open the browser the left pane displays nodes containing the adapter (connector) types and data sources. These nodes are hierarchical and can be expanded to show details of the data structure and function objects. The right pane displays the properties of the node selected in the left pane.

For a more detailed description of the node contents, refer to the *iPlanet Application Server Enterprise Connector for PeopleSoft Developer's Guide*.

## The Repository Data Structure

The Repository Browser contains the following nodes that are installed automatically when you install the UIF:

- adapterTypes
- dataSources

## adapterTypes

The adapterTypes node contains a default data structure for each type of connector that is installed. The adapterTypes section contains one subtree entry per adapter. The entry contains common definitions, which form the basis for defining data sources on the connector.

## dataSources

The dataSources node contains a default dataSource structure that is set when you install a connector. You can define several data sources for each adapterType. The dataSource section contains subtree entries, each of which is a logical UIF data source. A data source corresponds to a specific back-end Enterprise System and is supported by the corresponding adapterType.

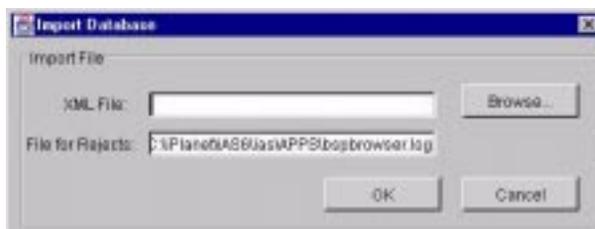
The data source definition activity is tightly controlled by the Management Console. There are two distinct user roles: the data source administrator and the application developer. The data source administrator is responsible for creating and administering data source entries, while the application developer develops applications that access these data sources.

A data source definition is usually heavily pre configured by the data source administrator. The application developer usually uses pre configured function objects, much like EJBs would be used with the deployment descriptor already set. This substantially isolates the application developer from the back-end specific interaction issues. See the *iAS Enterprise Connector for PeopleSoft Developer's Guide* for more information about programming applications.

## To Import XML Files

1. Select Import.

Figure 3-18 is displayed.

**Figure 3-18** Import Database Window

2. Enter the XML filename that you want to import and click OK.

## To Export XML Files

1. Select Export.

Figure 3-19 is displayed.

**Figure 3-19** Export DataBase Window

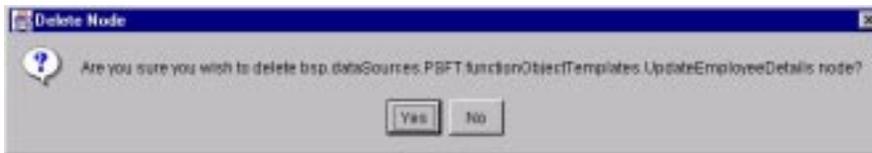
2. Enter the XML filename that you want to export and click OK.

## To Delete Nodes

1. Select Delete.
2. Select the Node you want to delete.

A warning message is displayed.

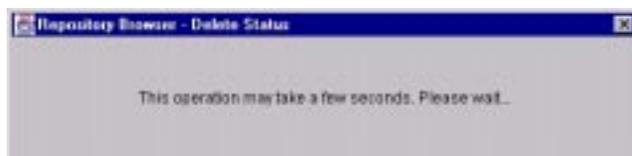
**Figure 3-20** Delete Node



3. Click Yes or No.

A status message appears as shown in Figure 3-21.

**Figure 3-21** Repository Browser - Delete Status



The display in the Repository Browser is updated with current data.

## To Refresh the Display of Repository Contents

- Click Refresh.

## To Import the Root Node into the Repository Contents

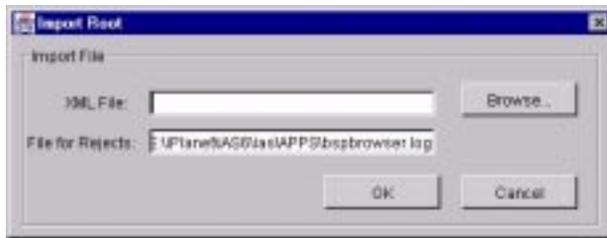
1. Click Import Root.

The Import Database window is displayed as shown in Figure 3-22.

2. Enter the XML filename to import and click OK.

The root node and its contents are imported into the repository.

Figure 3-22 Import Root Window





# Configuring the Application

This chapter is intended for administrators who configure operational parameters that support the UIF for the iPlanet Application Server Enterprise Connector for PeopleSoft. Most configuration parameters are stored in the UIF repository. The PeopleSoft Management Console enables you to modify these parameters.

This chapter describes pooling concepts when you set up a pooling configuration node in the UIF repository.

The chapter contains information about the following topics:

- About Pooling
- Bind Durations
- Pooling Configuration

## About Pooling

Pooling enables you to share resources. In the UIF, pools are used to share connections to an EIS from the iPlanet Application Server. Service providers allocate and reuse connections from pools to avoid unnecessary creation and destruction of connections to the EIS. Pools are defined in the Repository on a per-data source basis. This means that each data source defines its own connection pool, which can be individually configured.

An object in a UIF pool represents a connection to an EIS. Each pool contains a specified maximum number of objects to constrain the maximum number of simultaneous connections. A pool typically holds a number of objects that represent the number of connections in a steady state.

When an iPlanet Application Server application enables a service provider, the connector attempts to obtain a connection object from the pool.

If the maximum number has been reached and no object is available after a specified waiting period, the request times out. The time-out period can be configured.

If a pool object remains unused for a period of time, the object is destroyed. You can specify how long to wait before the object is destroyed.

The use and longevity of pool objects are monitored by a thread that executes periodically. You can specify the intervals after which the monitor thread executes. Typically, the thread executes more frequently than the waiting period before an object is destroyed. However, setting the monitor interval too small can degrade performance. You specify the frequency in the `MonitorInterval` node of the pooling connection; for more information see [Pooling Configuration](#).

## Bind Durations

A pooled connection is bound to a servlet for a specified period of time, called a bind duration, which is specified in a service provider type. Typically, a bind duration is only for the length of time it takes to execute the method requiring the connection, although some operations, such as beginning a transaction, may require a longer bind duration.

UIF supports three bind durations. Table 4-1 lists and describes blind durations.

**Table 4-1** Bind Durations

Bind Duration	Description
method-bound-poolable	The pooled connection is bound for the duration of the method call.
sp-bound-poolable	The pooled connection is bound for the life of the service provider; the connection is then returned to the pool.
not-poolable	The connection is not poolable. The connection is bound for the life of the service provider and is destroyed when the service provider is destroyed.

Bind durations are specified in the repository. The following example shows that the `<adapter>Conn` service provider type's bind duration is `method-bound-poolable`:

```
serviceProviderTypes
<adapter>Conn
bindDuration string method-bound-poolable
```

## Bind Duration Escalation

The bind duration may be changed dynamically by the connector. For example, at the beginning of a transaction, a connector may escalate the bind duration from method-bound to sp-bound, and then reset the bind duration to method-bound at the end of the transaction.

## Bind Duration Time-outs

An sp-bound connection cannot be used by another service provider until the connection has been released by the first service provider. If the first service provider does not release the connection in a timely manner, a time-out occurs and the connection is forcibly released and returned to the pool. The time-out prevents a "runaway" service provider that failed to call `disable()` from keeping the connection indefinitely.

# Pooling Configuration

You specify the pooling configuration for a service provider by specifying the Pooling configuration characteristics in the repository. Table 4-2 lists and defines Pooling Configuration characteristics.

**Table 4-2** Pooling Configuration Characteristics

Variable	Definition
MaxPoolSize	The maximum number of objects allowed in the pool. For example, if the pooled objects are host connections, set this number to the peak number of connections available to the server. If the number of objects is less than MaxPoolSize but exceeds SteadyPoolSize, objects are destroyed 3 seconds after they are returned to the pool.
SteadyPoolSize	The number of unused objects that are kept in the pool until they time out. For example, if the pooled objects are host connections, set SteadyPoolSize to the steady state (RMS) number of connections available from the host server.
MaxWait	The maximum time, in seconds, that a request for a physical object is held in the queue before the request times out and is destroyed.
UnusedMaxLife	The maximum time, in seconds, that a physical object remains unused in the pool. After this time, the physical object is destroyed.

**Table 4-2** Pooling Configuration Characteristics *(Continued)*

Monitor Interval	Optional) The time interval, in seconds, after which a thread is executed to monitor the current status of the pool. Default is 30 seconds. Typically, setting this number too low degrades performance, but it should be set to a number less than UnusedMaxLife.
DebugLevel	(Optional) Determines type of message logging, as described by the following choices: 0: Logging turned off. 1: Logs only callback messages. 2: Logs all messages.

The example below is used to show a "generic" pool, for specific information about the connector. The following entries define the pool configuration for the <adapter>Conn service provider:

```

pools
    <adapter>Pool
        sptype reference
        bsp.adapterTypes.<adapter>.serviceProviderTypes.psftConn
        config:do
            DebugLevel integer 1
            MaxPoolSize integer 20
            MaxWait integer 3
            MonitorInterval integer 10
            SteadyPoolSize integer 10
            UnusedMaxLife integer 300
  
```

# Glossary

**API (Application Programming Interface)** Software that an application utilizes to carry out and request lower-level services by the operating system. In addition, a set of standard software data formats that application programs use to initiate contacts with other programs, computers, and systems.

**Applet** A Java program that can be distributed as an attachment in a World Wide Web document and executed in a Java-enabled web browser.

**Applications Programmer** Responsible for writing servlets or EJBs that call the UIF API. Uses the Repository Browser to determine the available data types and access methods.

**Array Object** Contains data objects or primitive values as elements in the object. Array elements must be homogeneous. Each element within the array object is referred to by an integer that specifies its position in the array object.

**Attribute Field** Attributes that describe allowable attributes for the field where the input and output are located.

**CICS (Customer Information Control System)** An IBM communications program designed to allow transactions entered at a remote site to be processed concurrently by a mainframe host.

**Daemon** A program that is not explicitly invoked, and remains idle until summoned (called on).

**Data Block** Describes the input and output of operations. The data block can only contain two structures: input and output. All input and output structures contain fields that can be only one of the following types: primitive, structure, or array.

**Data Object** Used by the UIF to represent data or metadata in a generic fashion. Data objects are used to exchange data between a servlet and the UIF, and between the UIF and the connector.

**Data Source** Contains all the information needed to connect to the PeopleSoft system, and stores all the function objects. In addition, the Data Source determines which system to mine, and where to place the function objects.

**Deployment** Deploying an application includes installing all of the application's files, and registering all of its components on the destination server. You deploy an application using the Deployment Tool, a separate tool accessible from the iPlanet Application Server. An application must be deployed before it can be used.

**EJB (Enterprise Java Beans)** A server-side component architecture for writing reusable business logic and portable enterprise applications. They are written entirely in Java and run on any EJB compliant server. They are operating system, platform, and middleware independent, thereby preventing vendor lock-in.

**EIS (Enterprise Information System)** Referred to as a backend system.

**Enterprise Connector** The component in iPlanet Application Server Enterprise Connector for R/3, PeopleSoft, Tuxedo, or CICS that enables you to access the appropriate backend system.

**ERP (Enterprise Resource Planning)** A multi-module software system that supports enterprise resource planning. An ERP system typically includes a relational database and applications for managing purchasing, inventory, personnel, customer service, shipping, financial planning, and other important aspects of the business.

**Function Object** A group of business methods available for execution on the specific enterprise server. These objects are derived from metadata mined from the enterprise server that share a common state.

**iPlanet Application Server)** The iPlanet Application Server provides the most robust e-commerce platform for delivering innovative and leading-edge application services to a broad range of servers, clients, and devices.

**iWS (iPlanet Web Server)** A web server that is ideally suited to the Java development community for use as the development and test platform for web applications.

**Java** An object-oriented programming language developed by Sun Microsystems, Inc. to create executable content (i.e, self-running applications) that can be easily distributed through networks like the Internet.

**Load Balancing** Load Balancing is the configuration of a computer system, network, or disk subsystem to more evenly distribute the data and/or processing across available resources in order to increase the speed and reliability of transmissions.

**Operations Directory** A directory with operations that contain data blocks and property sets.

**Primitive Object** A data type that contains a single value of an integer, float, double, fixed-length string, or variable-length string.

**Repository** A specialized structure where all the module's functions are stored for the use of the iPlanet Application Server Enterprise Connector.

**Repository Browser** The component that enables you to browse data (content) in the repository, and to view the available functions (input and output parameters) for the backend system.

**Runtime Object** The entry point into the UIF.

**Service Provider Object** The logical representation of a connection to a back-end system, which must be enabled before it can be used. Typically, the service provider object is not bound to a physical connection until absolutely necessary.

**Server Tier** The server tier is represented by an application server and optionally a web server such as the iPlanet Web Server Enterprise Edition. The server tier houses the business logic (Enterprise Java Beans of your application servlets), and provides scalability, high availability load balancing, and integration with a variety of data sources.

**Servlet** An applet that runs on a server, usually meaning a Java applet that runs on a Web server.

**Structure Object** Contains other data objects or primitive values whose fields are heterogeneous such as as fields, and whose fields are heterogeneous. Each object within the structure object is referred to by a string that represents the field name. Field names have a maximum length of 32 characters.

**System Name** The system name used. For load-balancing connection only.

**Three-tier Application Model** A model of an application system that is composed of the following three tiers: Client, Server, and Backend (EIS).

**Type Information Objects** Structured objects that contain the type information of a data object; i.e. definition of the fields in a structure and the fields corresponding data types. Instances of data objects can be created of type information objects. Each of these instances contain a reference to a type of information object. Numerous data types can share the same type information object.

**UIF (Unified Integration Framework)** An application programming framework that provides a single Application Programming Interface (API) to access different backend systems.

**URL (Universal Resource Locator)** An address for a resource or site (usually a directory or file) on the World Wide Web, and the convention that web browsers use for locating files and other remote services.

**XML (eXtensible Markup Language)** A common cross-platform format document used to populate a repository.

**Worker** A worker is an out-of-process unthreaded procedure. The conversation to the backend system is done by the worker process. The worker returns the results to the connector using the proprietary protocol.

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