



THE ENTERPRISE MIDDLEWARE SOLUTION

BEA eLink Adapter for PeopleSoft

User Guide

BEA eLink Adapter for PeopleSoft Version 1.1
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October 1999

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BEA eLink Adapter for PeopleSoft User Guide

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Preface

This document provides instructions for installing and configuring BEA eLink Adapter for PeopleSoft. It is intended for system managers with the responsibility of installing products in the UNIX or Windows NT environment and configuration of layered products. While this guide attempts to provide step-by-step details of the configuration of eLink Adapter for PeopleSoft, it is intended for the experienced eLink Adapter for PeopleSoft consultant.

Topics

Preinstallation Requirements

Creating a BEA_CPS Message Definition

Installing eLink Adapter for PeopleSoft

Configuring PeopleSoft Application Server Domain

Configuring FML32

Running eLink Adapter for PeopleSoft

Exposing PeopleSoft Panels to TUXEDO Applications

Prerequisite Skills

Users of this guide are expected to have the following skill set in order to understand the context of the information:

- ◆ PeopleTools use, including the creation and definition of records, panels, panel groups, menus, menu items, business processes, activities, and message definitions.
- ◆ TUXEDO FML buffer definition.
- ◆ System management knowledge of BEA TUXEDO.
- ◆ A general understanding of the Windows NT operating system and DOS shell commands.
- ◆ A general understanding of the UNIX operating system and UNIX commands.
- ◆ A familiarity with BEA TUXEDO and PeopleSoft programming.

Prerequisite Software

Before starting the eLink adapter for PeopleSoft installation be sure that the following software is properly installed:

- ◆ PeopleSoft 7.5 or greater (three-tier mode.)
- ◆ PeopleTools 7.56 or later
- ◆ TUXEDO 6.4 or greater.

Documentation

This document, the *BEA eLink Adapter for PeopleSoft User Guide*, is designed primarily as an online document. If you are reading this as a paper publication, note that to get full use from this document you should install and access it as an online HTML document.

TUXEDO Documentation

The following BEA publications may be helpful:

TUXEDO System 6 Reference Manual

TUXEDO System 6 Programmer's Guide, Volumes 1 and 2

Other Publications

For more information about TUXEDO technology, refer to the following books:

The TUXEDO System (Andrade, Carges, Dywer, Felts)

TUXEDO: An Open Approach to OLTP (Primatesta)

Building Client/Server Applications Using TUXEDO (Hall)

For more information about PeopleSoft technology, refer to the following books:

PeopleSoft 7.5 People Books

Contact Information

The following sections provide information about how to obtain support for the documentation and software.

Documentation Support

If you have questions or comments on the documentation, you can contact the BEA Information Engineering Group by e-mail at **docsupport@beasys.com**.

Customer Support

If you have any questions about this version of BEA eLink Adapter for PeopleSoft, or if you have problems installing and running BEA eLink Adapter for PeopleSoft, contact BEA Customer Support through BEA WebSupport at www.beasys.com. You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- ◆ Your name, e-mail address, phone number, and fax number
- ◆ Your company name and company address
- ◆ Your machine type and authorization codes
- ◆ The name and version of the product you are using
- ◆ A description of the problem and the content of pertinent error messages

1 Preinstallation Requirements

This section provides information about preparing to install the eLink Adapter for PeopleSoft component.

Deciding the Environment for eLink Adapter for PeopleSoft

The eLink Adapter for PeopleSoft software must be installed in its own TUXEDO domain. This allows configuration and management to occur without disruption to the PeopleSoft services. This domain must be separately licensed, as the TUXEDO license provided with PeopleSoft only covers the PeopleSoft applications.

Depending on system load and use, eLink Adapter for PeopleSoft may be installed either on the same computer that runs PeopleSoft or a separate computer. This choice is left to the system manager.

If the computer where the eLink Adapter for PeopleSoft software resides is not the same computer as the one being used to run PeopleSoft, then you must install and configure the PeopleTools 7.56 client software on the eLink Adapter for PeopleSoft machine.

1 Preinstallation Requirements

Testing the PeopleSoft Application

Before installation of the eLink Adapter for PeopleSoft can begin, PeopleSoft must be started. verify PeopleSoft is up by connecting in 2-tier mode. To do this, start the `pstools.exe` in the `%PS_HOME%\bin\client\winx86\` directory path. Enter the database name `PTDMO` and a valid login ID and password, such as `PTDMO/PTDMO`.

Defining PeopleSoft Message Definition

After verifying the PeopleSoft application is connecting in 2-tier mode, you must set up Message Definitions for updating and retrieving data from the PeopleSoft database. These definitions must be in place prior to installing the eLink Adapter for PeopleSoft component. For information on how to configure these Message Definitions in PeopleSoft, refer to “Creating a BEA_CPS Message Definition.”

2 Creating a BEA_CPS Message Definition

When the eLink Adapter for PeopleSoft software starts up, it must determine which PeopleSoft Message Definitions are available via ATMI services. To do this, the eLink Adapter component requires a definition, BEA_CPS, which queries all the available definitions. You create this definition within the PeopleSoft configuration using the PeopleTools Application Designer. This section explains how to create the BEA_CPS Message Definition within PeopleSoft.

Start the PeopleTools Application Designer

These are the steps used to create the BEA_CPS message Definition in PeopleTools:

Creating a BEA_CPS Message Definition

Create a New Record Definition

Add Fields To The Record Definition

Define Record Properties

Define the Field Properties

Create a Panel to Acces the BEA_CPS Message Definition
(Optional)

Create The New Business Process

2 Creating a BEA_CPS Message Definition

Creating a BEA_CPS Message Definition

Define the Activity

Create a New Activity

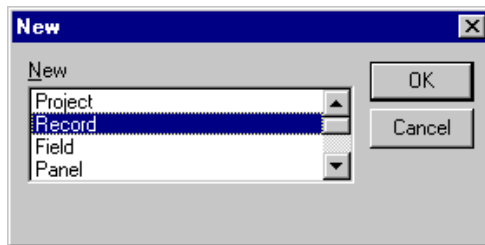
Create New Message Agent Message Definition

Define the Message Definition

Create a New Record Definition

Select **File -> New**. This brings up a dialog that allows the selection of a new PeopleSoft object. Highlight **Record** from the available choices (Figure 2-1) and click **OK**.

Figure 2-1 Add a new record definition in PeopleTools.



Add Fields To The Record Definition

The record will contain two fields: ACTIVITYNAME, and INPUTNAME.

1. Begin by adding the ACTIVITYNAME field:
 - a. Select **Insert -> Field** from the menu. The **Insert Field** dialog box displays (Figure 2-2).
 - b. Type ACTIVITYNAME in the **Name** field and click the **Insert** button.

Figure 2-2 Add the ACTIVITYNAME field to the record.

Insert Field

Object Type:

Selection Criteria

Name:

Long Name:

Type:

Project:

Objects matching selection criteria:

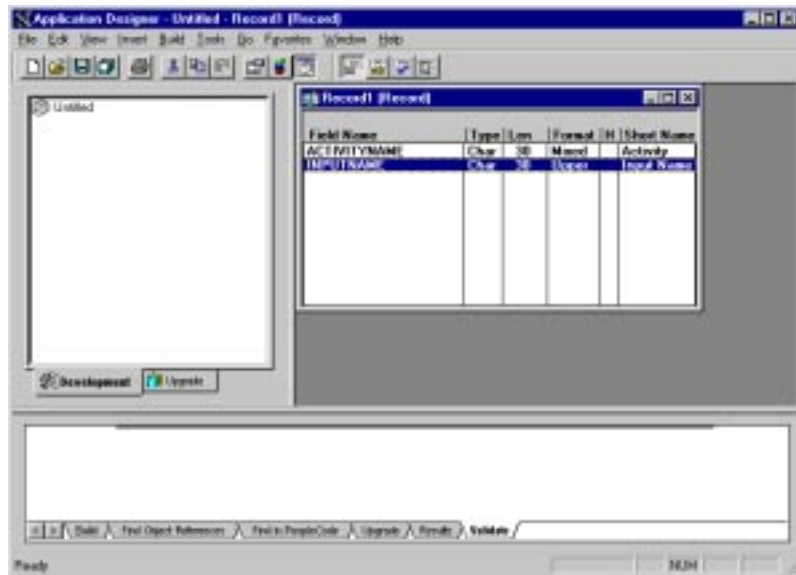
Name	Type	Long Name:
------	------	------------

2. Add the INPUTNAME field:

Change the **Name** field from ACTIVITYNAME to INPUTNAME and click **Insert**. Figure 2-3 shows how the Record Definition displays with both fields.

2 Creating a BEA_CPS Message Definition

Figure 2-3 View of record after inserting the required records.



Define Record Properties

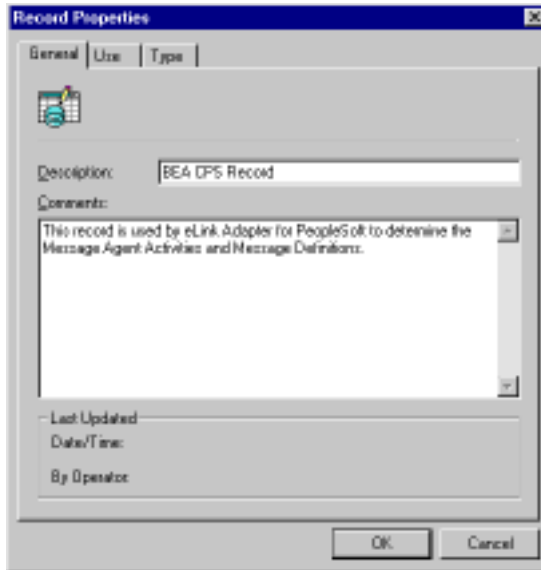
After you have defined the record, you must define its properties. Select **File -> Object Properties** from the menu to bring up the **Record Properties** dialog.

General Properties

On the **General** tab add the general information about the record. In Figure 2-4, the **Description** and **Comment** fields are filled in as follows:

Description: BEA CPS Record

Comment: This record is used by eLink Adapter for PeopleSoft to determine the Message Agent Activities and Message Definitions.

Figure 2-4 Adding general information.

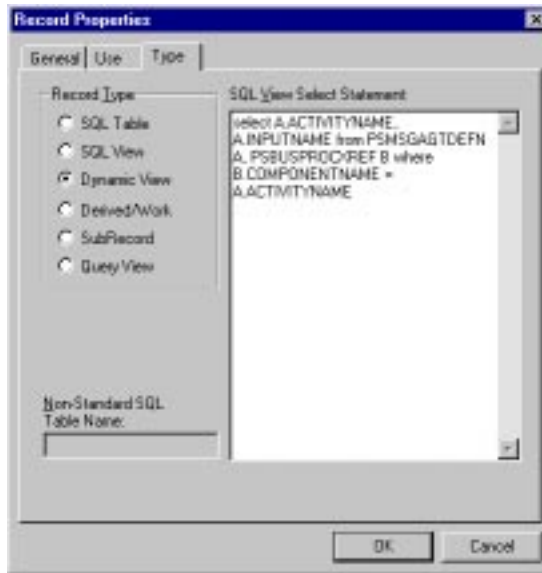
Set the Type of Record

1. Select the **Type** tab.
2. Select the **Dynamic View** radio button in the **Record Type** section.
3. Type the following in the **SQL View Select Statement** text box:

```
select A.ACTIVITYNAME, A.INPUTNAME from PSMMSGAGTDEFN A,  
PSBUSPROCXREF B where B.COMPONENTNAME = A.ACTIVITYNAME
```
4. Verify the information (Figure 2-5.)
5. Press the **OK** button.

2 Creating a BEA_CPS Message Definition

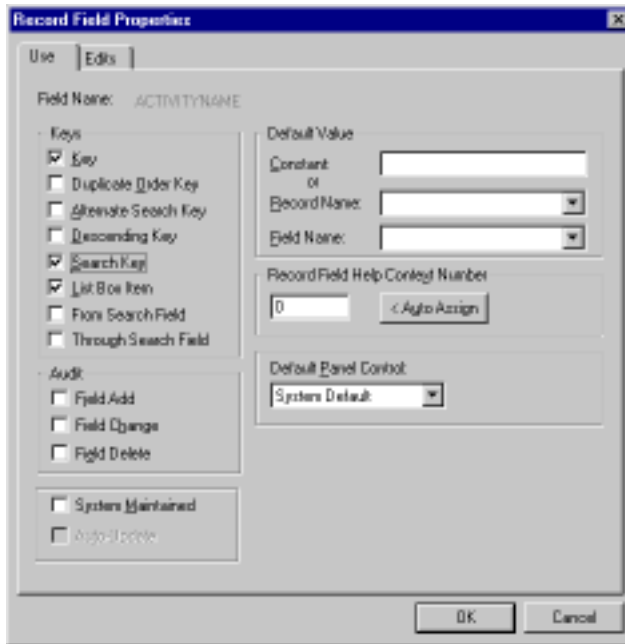
Figure 2-5 Set the type of record.



Define the Field Properties

1. Double-click on the **ACTIVITYNAME** field in the **Record** window to bring up the Record Field Properties dialog.
2. Under the **Use** tab check (click) the **Key**, **Search Key**, and **List Box Item** check boxes. Ensure that no other check boxes are selected (Figure 2-6).
3. Select **OK**.

Figure 2-6 Define the properties of the ACTIVITYNAME field.



4. The INPUTNAME field properties must also be set. Double-click on the **INPUTNAME** field in the Record window to bring up the Record Field Properties dialog for the **INPUTNAME** field. Select the Key and List Box Item checkboxes. Ensure that no other checkboxes are selected. Select **OK**.

Save the Record Definition

1. Select **File -> Save As** from the menu.
2. In the **Save As** dialog type BEA_CPS in the **Save Name As** field (Figure 2-7).
3. Select **OK**.

2 Creating a BEA_CPS Message Definition

Figure 2-7 The last step in creating the record definition



Insert the record into the project by selecting **Insert -> Current Object** into Project from the menu (or by pressing <F7>). The Record window may now be closed: select **File->Close** from the menu.

Create a Panel to Access the BEA_CPS Message Definition (Optional)

The tasks in this section are optional and define the PeopleSoft Panel and Menu items that allow the eLink Adapter for PeopleSoft Message Definition to be graphically executed from within PeopleTools.

Note: The eLink Adapter for PeopleSoft component will function without these items being created.

When using PeopleTools, a panel must be defined to allow access to the **ACTIVITYNAME** and **INPUTNAME** fields defined in the BEA_CPS record. Select **File->New** and highlight Panel in the New dialog to create a new panel. Select **OK** (Figure 2-8).

Figure 2-8 Create a new panel definition.

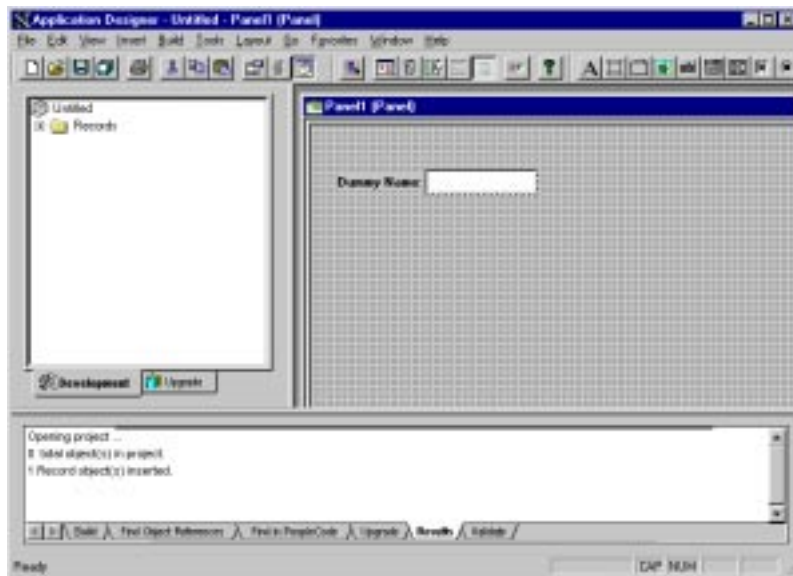


Adding fields consists of adding two edit boxes and defining the properties of each.

1. Begin by inserting an Edit box.
2. Select **Insert -> Edit Box** from the menu.

3. The cursor will change from a pointer to a crosshair.
4. Move the crosshair over the panel window (near the center of the upper half of the window) and click on the window.
5. This will place a new entry field in the panel (Figure 2-9).
6. The crosshair will revert back to a pointer.

Figure 2-9 Add the first text entry field to the panel.



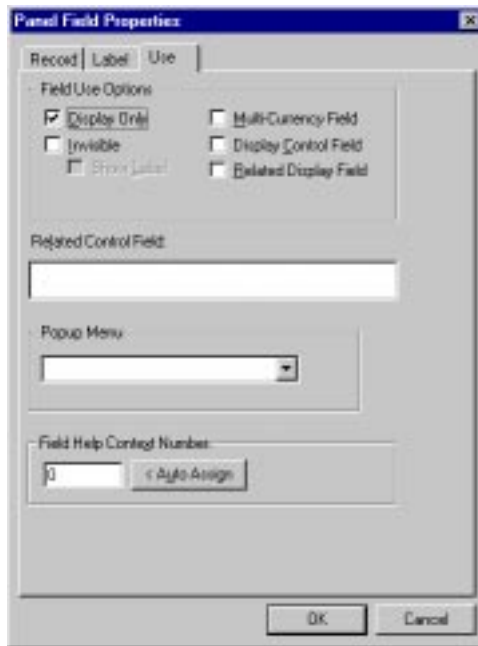
7. Double-click on the entry field in the panel window (the white box).
8. This will bring up the Panel Field Properties dialog.
9. Under the **Record** tab, specify BEA_CPS as the Record Name (you may either type it in or select it from the drop-down list).
10. For the **Field Name** specify ACTIVITYNAME (again, you may either type it in or select it from the drop-down list) (Figure 2-10).
11. Under the **Use** tab check **Display Only** in the **Field Use Options** section (Figure 2-11).
12. Select **OK**.

2 Creating a BEA_CPS Message Definition

Figure 2-10 Set the panel field properties for the ACTIVITYNAME field.



Figure 2-11 Set the panel field properties for ACTIVITYNAME to display only.



Following the same method used for the ACTIVITYNAME, add a second entry field for INPUTNAME. Place this entry field in the center of the bottom half of the panel window. Select **Insert -> Edit Box** from the menu (pointer changes to crosshair), position the crosshair in the center of the lower half of the panel window and click on the panel window, double click on the new entry field to bring up the Panel Field Properties dialog. For the Record Name specify BEA_CPS. For the Field Name specify INPUTNAME (Figure 2-12). Under the **Use** tab check **Display Only** in the **Field Use Options** section (Figure 2-13). Select **OK**.

2 Creating a BEA_CPS Message Definition

Figure 2-12 Define the panel field properties for the INPUTNAME field.

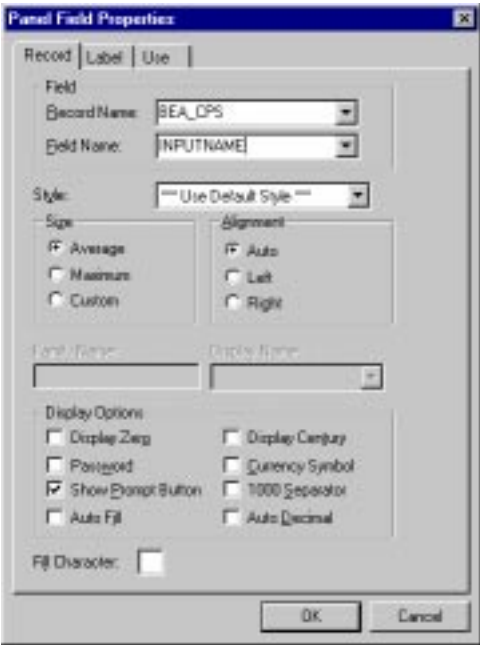
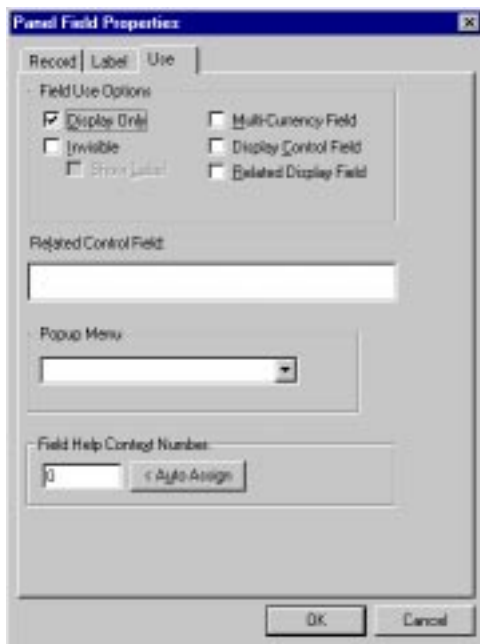


Figure 2-13 Set the panel field properties for INPUTNAME to display only.



Save the panel definition by selecting **File -> Save As** from the menu and typing BEA_PANEL as the Save Name as (Figure 2-14). Select **OK**. The panel has been created. Add the Panel to the Project, <F7>. Select **File -> Close** from the menu to close the panel definition window.

Figure 2-14 Save the newly created panel as BEA_PANEL.



Define a New Panel Group

A panel group must be defined to contain the panel that was just defined. From the menu select **File -> New**, and choose **Panel Group** in the **New** dialog (Figure 2-15). Select **OK**.

Figure 2-15 Create a new panel group.



From the menu select **Insert -> Panel into Group** to bring up the Insert Panel dialog. Specify **BEA_PANEL** in the **Name** field and press the **Insert** button (Figure 2-16). Select **Close** to close the Insert Panel dialog (Figure 2-17).

Figure 2-16 Insert the BEA_PANEL into the panel group.

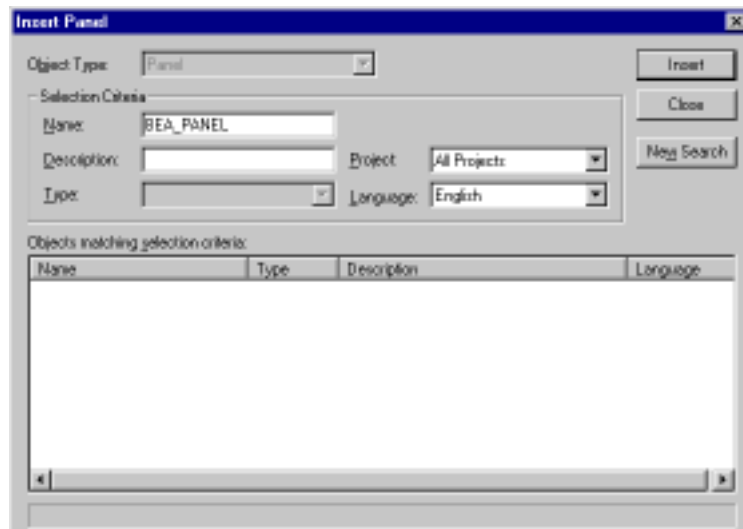


Figure 2-17 The panel group with BEA_PANEL inserted.

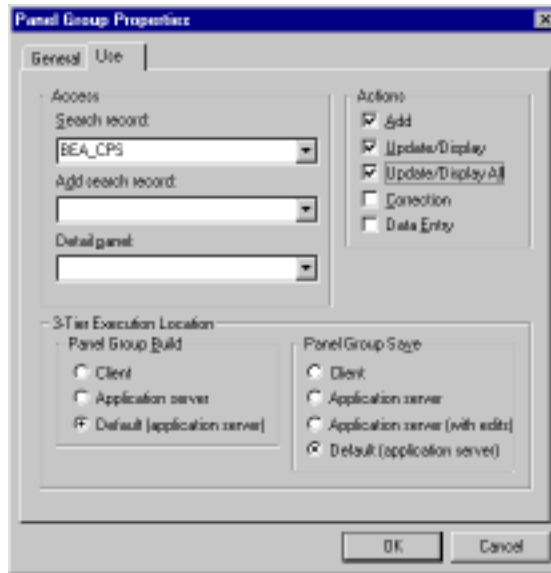


A search record must be added to the panel group. This is the method by which eLink for PeopleSoft determines the names of available Message Agent Activities and Message Definitions:

1. From the menu select **File -> Object Properties** to bring up the Panel Group Properties dialog.
2. In the dialog select the **Use** tab.
3. Under Actions select the **Add, Update/Display, Update/Display All** checkboxes.
4. Ensure that the **Correction** and **Data Entry** checkboxes are not selected.
5. In the **Search Record** field specify BEA_CPS (by either typing it in or selecting it from the drop-down list) (Figure 2-18).
6. Select **OK** to return to the Panel Group Definition window.

2 Creating a BEA_CPS Message Definition

Figure 2-18 Define the properties of the panel group.



Save the panel group by selecting **File -> Save As** from the menu. Type **BEA_PNLGROUP** as the **Save Name As** (Figure 2-19). Select **OK** to save and return to the Panel Group definition window. Add the panel group to the project by pressing <F7>. Close the Panel Group Definition window by selecting **File -> Close** from the menu.

Figure 2-19 Save the newly created panel group as BEA_PNLGROUP.



The panel group must now be associated with a menu.

To create the menu select **File -> New** from the menu and select Menu from the New dialog. Select **OK**.

Choose Standard as the Menu type and select **OK** (Figure 2-20).

This will display a menu window with the new menu in it. In the menu, between Favorites and Language, is an empty space outlined with a dashed rectangle (Figure 2-21). Double click within this rectangle to bring up the **Bar Item Properties** dialog.

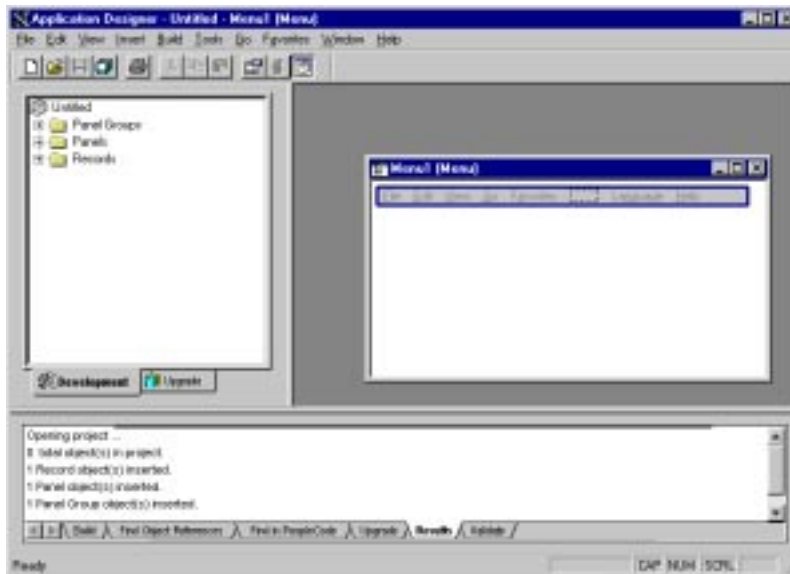
Type BEA in the **Name** field and eLink for PeopleSoft in the **Label** field (Figure 2-22).

Select **OK**.

Figure 2-20 Create a new standard menu.

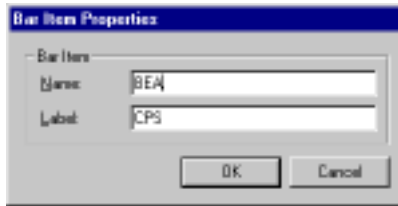


Figure 2-21 The newly created menu.



2 Creating a BEA_CPS Message Definition

Figure 2-22 Add a new bar item, CPS, to the menu.



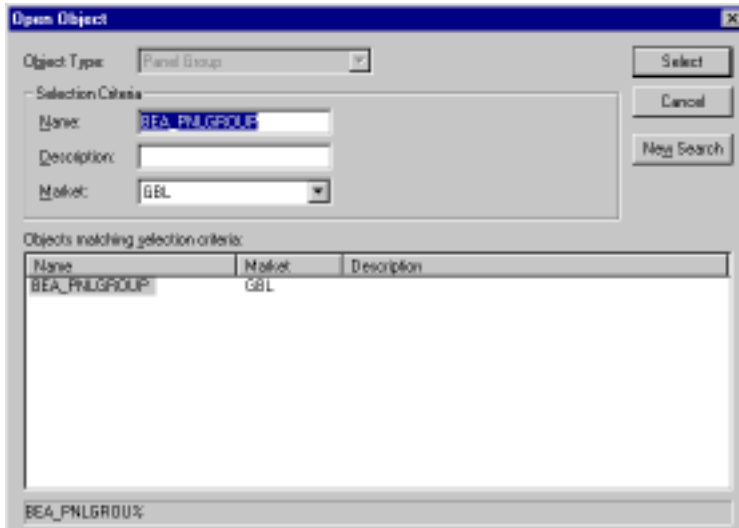
The menu now needs a menu item. Double click in the new dashed rectangle that is below the heading "CPS" to bring up the Menu Item Properties dialog. Enter CPS1 in the Name field and Definitions in the Label field (Figure 2-23).

Figure 2-23 Add a menu item, "Definitions," to the bar item "CPS."



The panel group created previously is added to the menu by pressing the **Select** button on the Menu Item Properties dialog. Press the **Select** button to bring up the **Open Object** dialog. Specify BEA_PNLGROUP as the **Name** (Figure 2-24). Press the **Select** button in the **Open Object** dialog to return to the **Menu Item Properties** dialog. Select **OK** in the **Menu Item Properties** dialog.

Figure 2-24 Add BEA_PNLGROUP to eLink for PeopleSoft.



Save the Menu by selecting **File -> Save As** from the menu. Specify BEA_MENU as the **Save Name** as (Figure 2-25). Select **OK**. Add the panel group to the project by pressing <F7>. Close the **Menu Definition** window by selecting **File -> Close** from the menu.

Figure 2-25 Save the newly created menu as BEA_MENU.



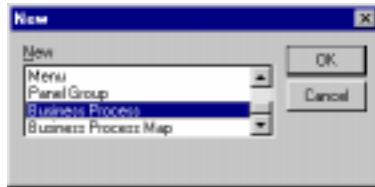
Create The New Business Process

A business process must be created to contain the Activity and Message Definition that eLink for PeopleSoft uses.

2 Creating a BEA_CPS Message Definition

Create a new business process by selecting **File -> New** from the menu and selecting **Business Process** from the **New** dialog (Figure 2-26). Select **OK**. This will bring up the **Business Process** window and a small, detached activity window.

Figure 2-26 Create a business process with the Activity and Message Definition.



Create a New Activity

Click on the button with three footprints. Move the pointer over the **Business Process** window (pointer will change to a box) and press the mouse button. The **Activity Choices** dialog will be displayed. Select **Create New Activity** (Figure 2-27). Select **OK**. This will place an icon of the three footprints in the **Business Process** window (Figure 2-28).

Figure 2-27 Create a new activity within the business process.

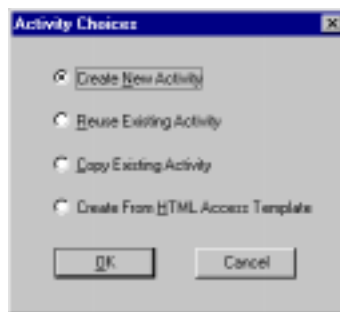
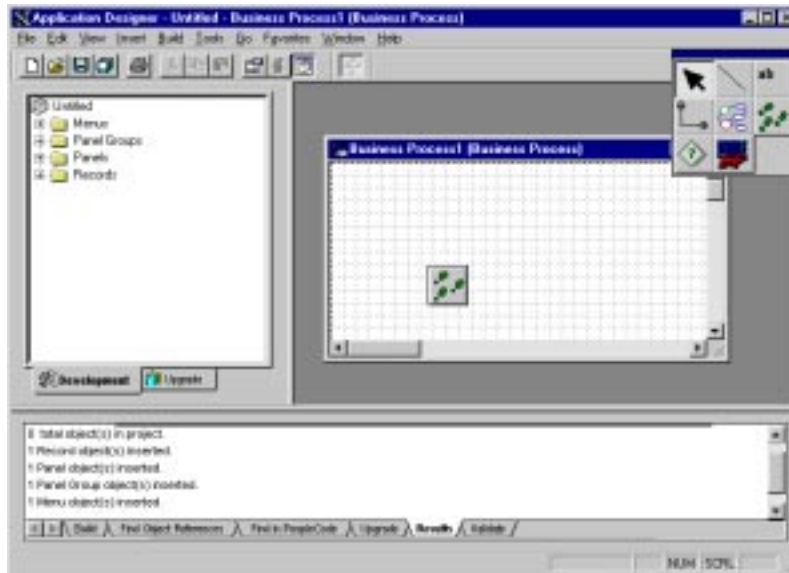


Figure 2-28 The business process with the newly created activity.



Define the Activity

Right click on the three footprint icon in the **Business Process** window. This will display the **Activity Definition** dialog. In the **Name** field type BEA_CPSActivity and then press <Tab>.

Note: The **Icon Description** will be filled in automatically with the data from the **Name** field when focus is shifted from the **Name** field.

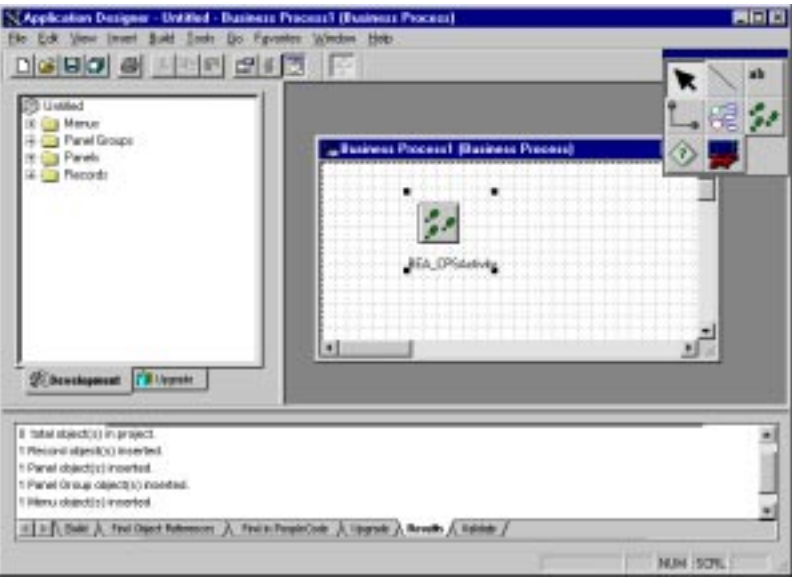
In the description field type “This activity is used by BEA eLink for PeopleSoft during initialization.” (Figure 2-29). Select **OK**. Be sure to use the same capitalization as documented.

2 Creating a BEA_CPS Message Definition

Figure 2-29 Define the activity as BEA_CPSActivity.



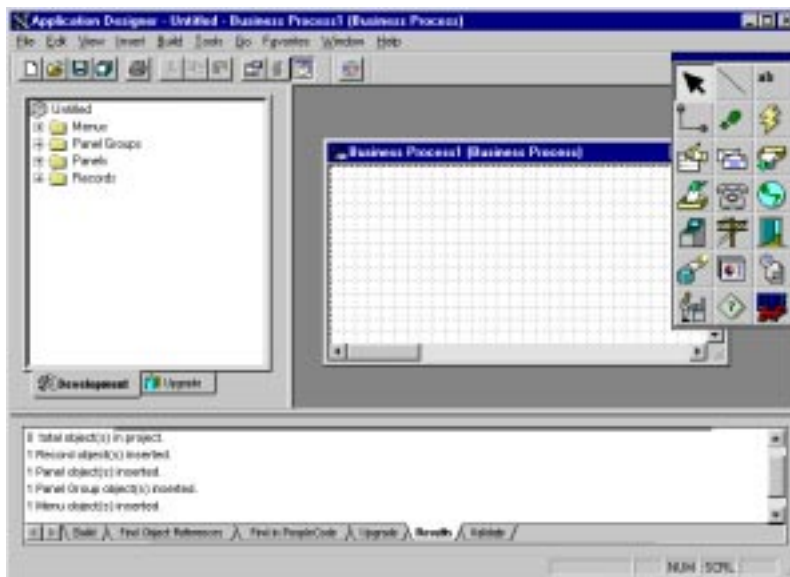
Figure 2-30 The business process now contains the BEA_CPSActivity definition.



Create New Message Agent Message Definition

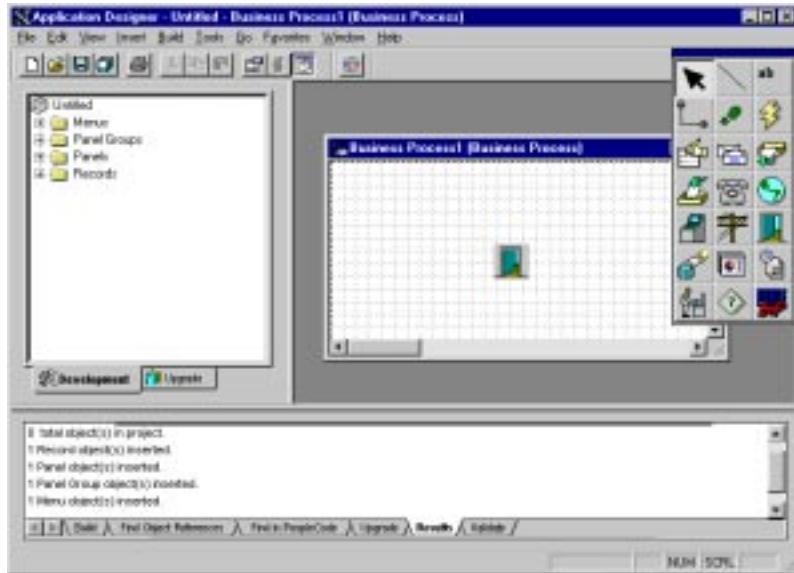
Double click on the BEA_CPSActivity icon in the **Business Process** window (Figure 2-30). The **Business Process** window will be blank and the small floating window will now contain several more, different icons (Figure 2-31). Click on the icon that appears to be a door and move the pointer into the **Business Process** window (the pointer will change to a small box) and click in the **Business Process** window. This will place the door icon in the window (Figure 2-32).

Figure 2-31 Add a Message Agent Message Definition.



2 Creating a BEA_CPS Message Definition

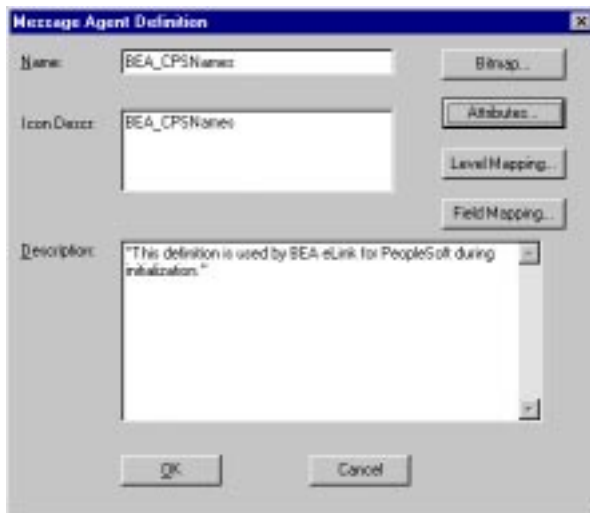
Figure 2-32 The Message Agent Message Definition is added, but not yet defined.



Define the Message Definition

Right click on the door icon in the **Business Process** window to bring up the **Message Agent Definition** dialog. Specify **BEA_CPSNames** in the **Name** field and press <Tab> (the **Icon Description** field will be filled in automatically after focus changes from the **Name** field). For the **Description** field type: “This definition is used by BEA eLink for PeopleSoft during initialization.” Be sure to use the specified capitalization.

Figure 2-33 Name the new Message Agent Message Definition BEA_CPSNames.



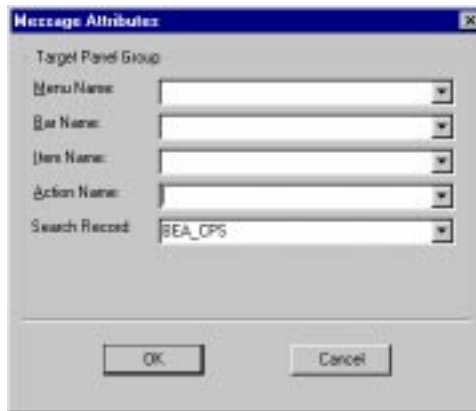
Select the **Attributes** button to bring up the **Message Attributes** dialog. Specify the following for each of the fields (either by typing in the values or selecting them from the drop-down lists) (Figure 2-34):

If the optional steps were performed as described in "Create a Panel to Access the BEA_CPS Message Definition (Optional)," specify the following values:

- ◆ Menu Name-BEA_MENU
- ◆ Bar Name-BEA
- ◆ Item Name-CPS1
- ◆ Action Name-Update/Display All
- ◆ Search Record-BEA_CPS

2 Creating a BEA_CPS Message Definition

Figure 2-34 Attributes for BEA_CPSNames when not for use within PeopleTools.

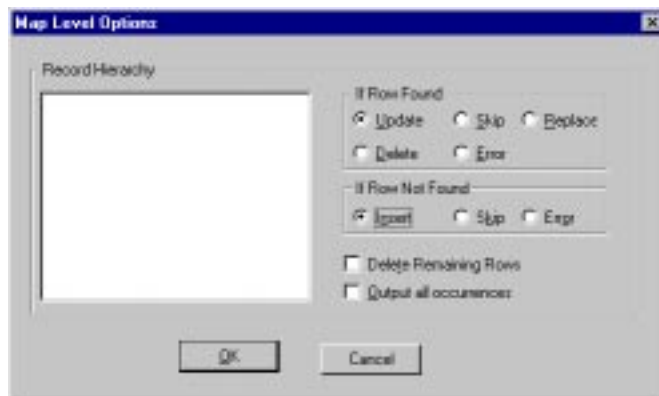


The **Message Attributes** dialog box is shown. It has a title bar with a close button. The main area is labeled "Target Panel Group" and contains five dropdown menus: "Menu Name:", "Bus Name:", "Item Name:", "Action Name:", and "Search Record:". The "Search Record:" dropdown is currently set to "BEA_CPS". At the bottom are "OK" and "Cancel" buttons.

Select **OK** to return to the **Message Agent Definition** dialog.

Select the **Level Mapping** button on the **Message Agent Definition** dialog. In the **If Row Found** section select the **Update** radio button. In the **If Row Not Found** section select the **Insert** radio button (Figure 2-35). Select **OK** to return to the **Message Agent Definitions** dialog.

Figure 2-35 Define the Level Mapping attributes.



The **Map Level Options** dialog box is shown. It has a title bar with a close button. The main area is labeled "Record Hierarchy" and contains a large empty rectangular box. To the right of the box are two sections of radio buttons. The first section is labeled "If Row Found" and contains three radio buttons: "Update" (selected), "Skip", and "Replace". The second section is labeled "If Row Not Found" and contains three radio buttons: "Insert" (selected), "Skip", and "Error". Below these sections are two checkboxes: "Delete Remaining Rows" and "Output all occurrences". At the bottom are "OK" and "Cancel" buttons.

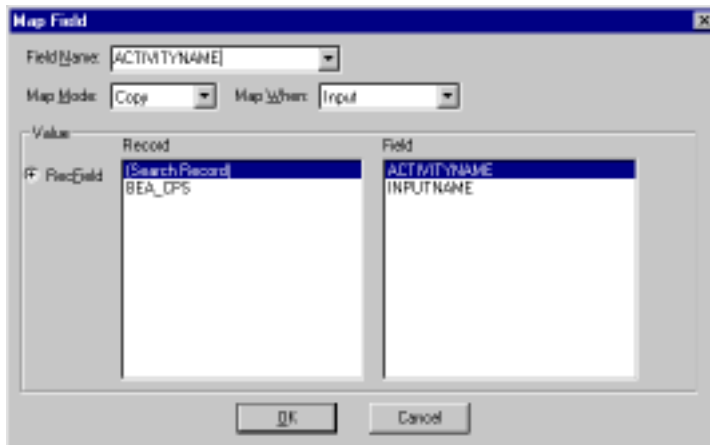
Select the **Field Mapping** button to bring up the **Message Agent Field Map** dialog (Figure 2-36). Select the **Add** button to bring up the **Map Field** dialog.

Figure 2-36 Add field mapping to the BEA_CPSNames Message Definition.



In the **Value** section highlight (Search Record) in the **Record** box and then ACTIVITYNAME in the **Field** box. In the **Field Name** specify ACTIVITYNAME (Figure 2-37). Select **OK** to return to the **Message Agent Field Map** dialog. Select the **Add** button again to bring back the **Map Field** dialog.

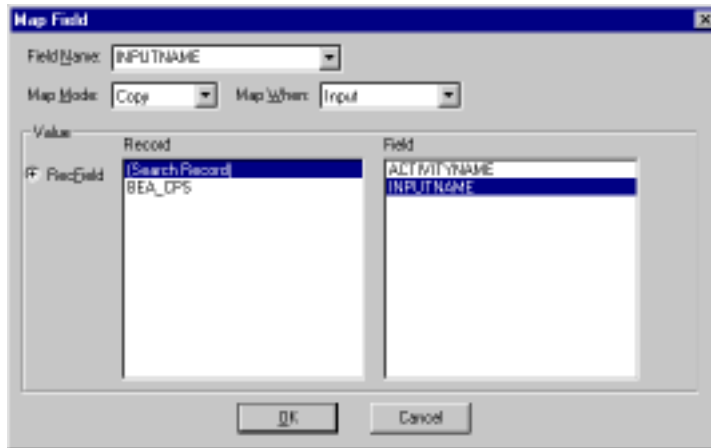
Figure 2-37 Field mapping without ACTIVITYNAME Message Definition.



2 Creating a BEA_CPS Message Definition

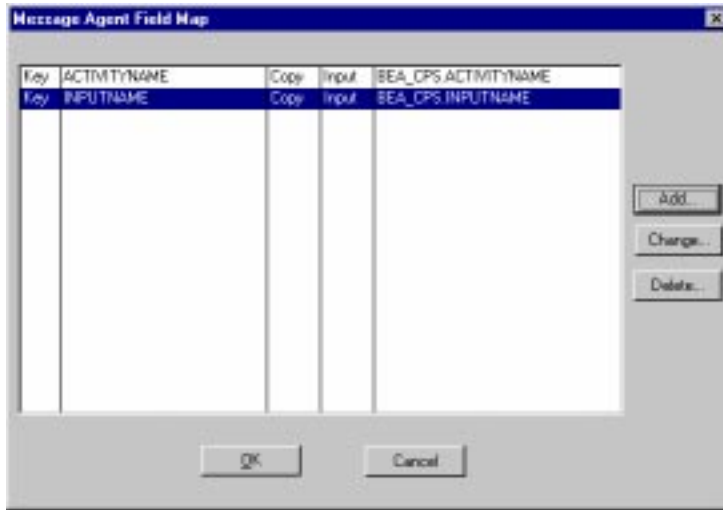
In the **Value** section highlight (Search Record) in the Record box and then INPUTNAME in the **Field** box. In the **Field Name** specify INPUTNAME (Figure 2-38). Select **OK** to return to the **Message Agent Field Map** dialog.

Figure 2-38 Field mapping without INPUTNAME Message Definition.



Select **OK** from the **Message Agent Field Map** dialog (Figure 2-39) to return to the **Message Agent Definition** dialog. Select **OK** in the **Message Agent Definition** dialog to return to the **Business Process** window.

Figure 2-39 Message Definition BEA_CPSNames with required field mappings.



Save the Business Process by selecting **File -> Save As** from the menu. Type BEA_CPSBUSPROC in the **Save Name As** field (Figure 2-40). Select **OK**. Add the Business Process to the Project by pressing <F7>. Close the Business Process by selecting **File -> Close** from the menu.

Figure 2-40 Save the newly created Business Process as BEA_CPSBUSPROC.



Save the Project by selecting **File -> Save Project** from the menu. Enter BEA_CPS as the name to save as (Figure 2-41).

Figure 2-41 Save the eLink for PeopleSoft project as BEA_CPS.



Figure 2-42 shows the BEA_CPS project with all the components visible.

2 Creating a BEA_CPS Message Definition

Figure 2-42 All items defined in the eLink for PeopleSoft project.

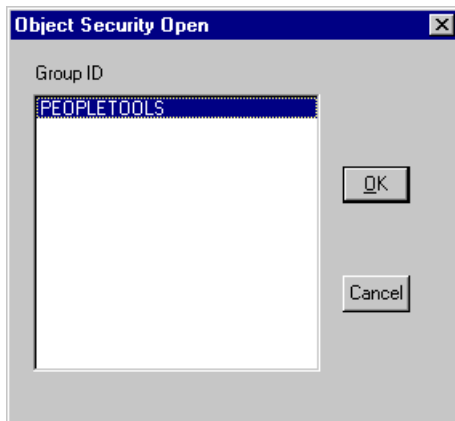


Select **File -> Exit** from the menu to exit the application designer. The PeopleSoft definitions required by eLink Adapter for PeopleSoft have now been created.

Configuration Validation

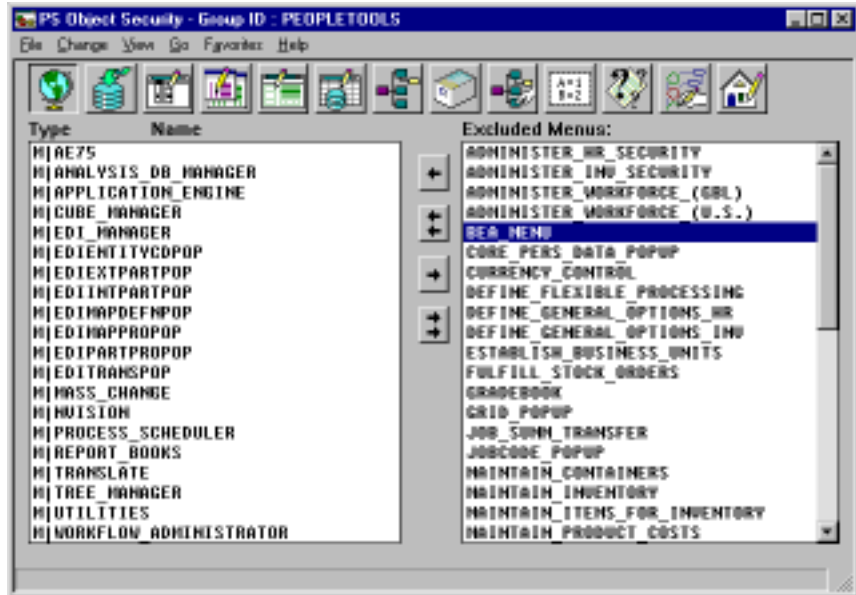
To make the eLink for PeopleSoft menu visible within the PeopleSoft GUI, permissions must be granted to authorized users. Launch the PeopleTools Object Security application.

Open the PeopleTools group by selecting **File -> Open -> Group**, highlighting PeopleTools, and pressing **OK**.



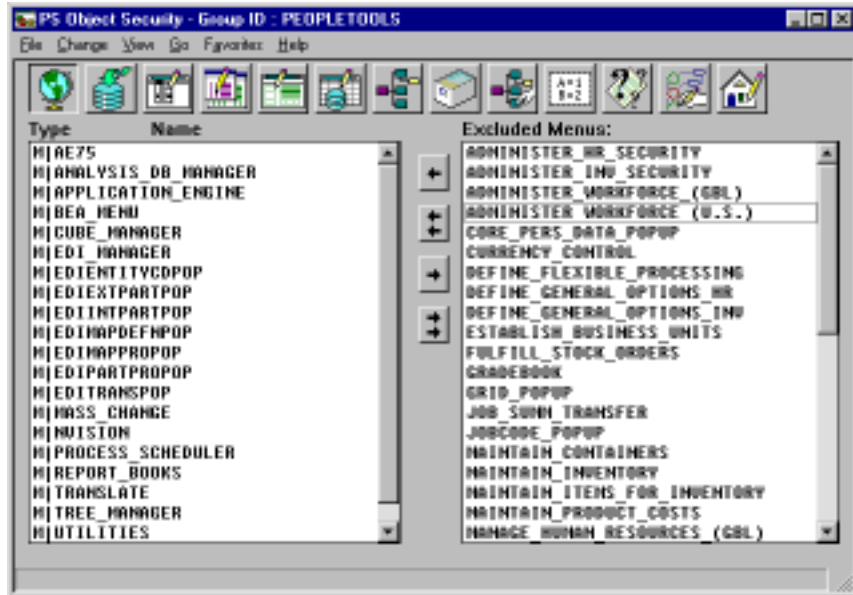
From the menu select **View -> Menus**.

2 Creating a BEA_CPS Message Definition



In the Excluded Menus list, on the right side of the window, the BEA_MENU will be listed. Highlight BEA_MENU by clicking on it.

Add it to the usable list by clicking on the single left arrow in the middle of the window.



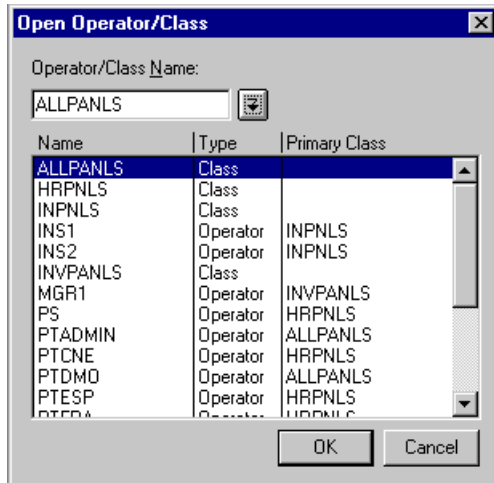
Save the changes by selecting **File -> Save** from the menu.

Exit PeopleSoft Object Security by selecting **File -> Exit**.

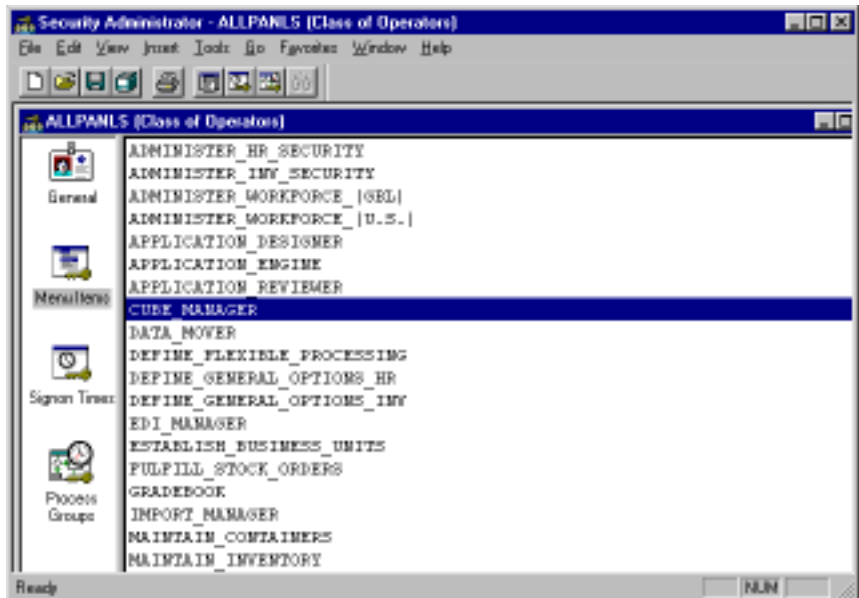
Launching the Security Administrator

To launch the Security Administrator, select **File -> Open**. Press the arrow to the right of the **Operator/Class Name** input field. ALLPANLS will be inserted into the **Operator/Class Name** field.

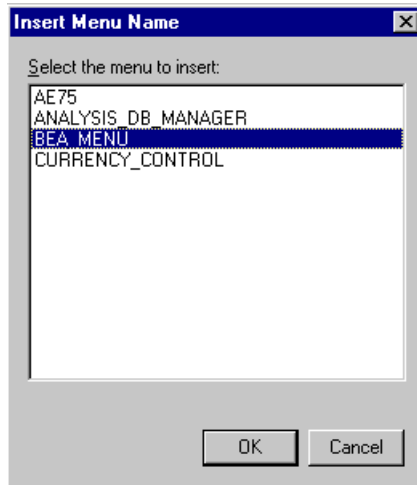
2 Creating a BEA_CPS Message Definition



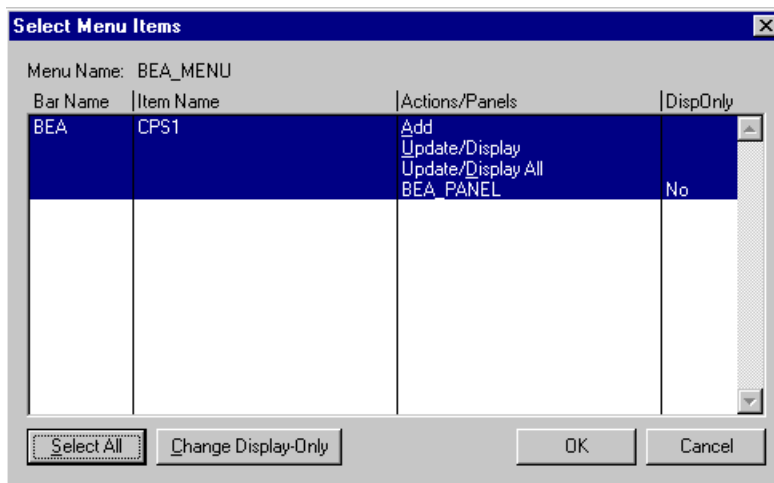
Select **OK** and the ALLPANLS Class displays.



Click on the **Menu** icon on the left side of the window. Insert the BEA_MENU by selecting **Insert -> Menu Name** from the menu. This brings up the **Insert Menu Name** dialog.

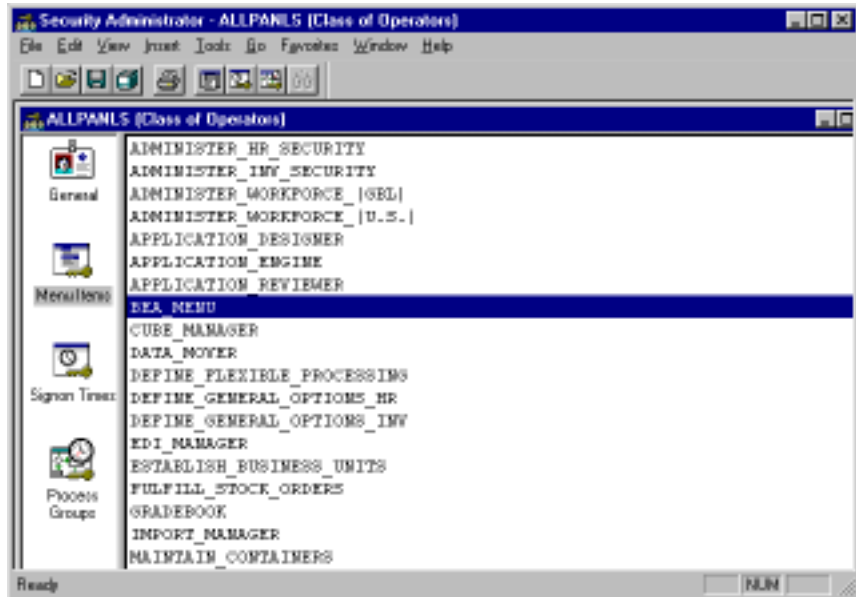


Highlight BEA_MENU from the list and select **OK** to bring up the **Select Menu Items** dialog.



Press the **Select All** button and then press the **OK** button to return to the **Security Administrator** main window, which now should include BEA_MENU in the menu list.

2 Creating a BEA_CPS Message Definition



Save the changes by selecting **File -> Save** from the menu and then exit the Security Administrator selecting **File -> Exit**. The BEA Menu will now be available from within the PeopleTools GUI. In order for the menu item to appear, any running PeopleTools Applications must be restarted (e.g. If Security Administrator was launched from within the Application Designer, the Application Designer must be exited and re-started). The BEA Menu will appear under the Go menu item.

3 Installing eLink Adapter for PeopleSoft

This chapter contains information for installing and uninstalling the eLink Adapter for PeopleSoft product.

Pre-Installation Considerations

The eLink Adapter for PeopleSoft software runs on Digital UNIX, HP-UX, AIX, Solaris, and Windows NT platforms. Complete the following tasks prior to installing eLink Adapter for PeopleSoft:

- ◆ Read the *BEA eLink Adapter for PeopleSoft Release Notes*.
- ◆ Install and verify the operation of the BEA TUXEDO product.
- ◆ The following server platforms are supported for eLink for PeopleSoft:
 - ◆ HP-UX
 - ◆ AIX Version
 - ◆ Solaris
 - ◆ Windows NT (Intel)

Configuring the Environment to Install eLink for PeopleSoft

Before installing eLink Adapter for PeopleSoft, you must configure the environment properly. Ensure that BEA TUXEDO is configured properly.

Installing BEA eLink Adapter for PeopleSoft

The eLink Adapter for PeopleSoft software will run on Unix-based platforms and Windows NT. Refer to the appropriate platform sections that follow for installation instructions.

Installing on UNIX-based Platforms

To install the eLink Adapter for PeopleSoft software, you run the `install.sh` script. This script installs all the necessary software components.

Perform the following steps to install the eLink Adapter for PeopleSoft software on a supported UNIX platform.

1. Log on as root to install eLink for PeopleSoft.

```
$ su -  
Password:
```

2. Access the CD-ROM device.

```
# ls -l /dev/cdrom  
total 0  
brw-rw-rw-  1 root  sys   27,   0 September 27  10:55 clb0t010
```

3. Mount the CD-ROM.

```
# mount -r -F cdfs /dev/cdrom/clb0t010 /mnt
```

4. Change the directory to your CD-ROM device.

```
# cd /mnt
```

5. List the CD-ROM contents.

```
# ls
install.sh  hp  sun5x  ibm  alpha  winnt
```

6. Execute the installation script.

```
# sh ./install.sh
```

7. The installation script runs and prompts you for responses. Listing 3-1 is an example of the installation script. The entries in bold represent user responses.

Listing 3-1 Install.sh Example

```
01 alpha.dux40      02) hp/hpux1020      03) hp/hpux11
04) ibm/aix43       05) sun5x/sol126    06) sun5x/sol17

Install which platform's files? [01-6, q to quit, l for list]: 3

** You have chosen to install from hp/hpux11 **

Is this correct? [y,n,q]: y

To terminate the installation at any time
press the interrupt key,
typically <del>, <break>, or <ctrl+c>.

The following packages are available:

1      eps      BEA eLink Adapter for PeopleSoft

Select the package(s) you wish to install (or 'all' to install
all packages) (default: all) [?,??,q]: all

BEA eLink Adapter for PeopleSoft
(9000) Release 1.1
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BEA eLinkisa trademark of BEA Systems, Inc.

Directory where PeopleSoft Adapter files are to be installed
(Enter your TUXEDO directory path) [?,q]: /work/cmadm/tux64
```

3 Installing eLink Adapter for PeopleSoft

```
Using /work/cmadm/tux64 as the PeopleSoft Adapter base directory

Determining if sufficient space is available ...
200 blocks are required
4935566 blocks are available to /work/cmadm/tux64

Unloading /cmhome/dist/eps-2/hp/hpux11/eps/EPST64.Z...
bin/cps
bin/lic.sh
eLink/peoplesoft/psappserv/psappsrv.dc
eLink/peoplesoft/psappserv/psappsrv.ubx
eLink/peoplesoft/psappserv/readme.txt
eLink/peoplesoft/psappserv/setenv.bat
eLink/peoplesoft/psappserv/setenv.sh
eLink/peoplesoft/simpeps/MsgAgtEx.fml
eLink/peoplesoft/simpeps/ePS.dc
eLink/peoplesoft/simpeps/ePS.env
eLink/peoplesoft/simpeps/ePS.ubb
eLink/peoplesoft/simpeps/in.ud
eLink/peoplesoft/simpeps/readme.txt
eLink/peoplesoft/simpeps/setenv.bat
eLink/peoplesoft/simpeps/setenv.sh
locale/C/CPSMSG_CAT
udataobj/CPSDef.fml
180 blocks

...finished

Changing file permissions...
...finished

If your license file is accessible, you may install it now.
Install license file? [y/n]:n

Please don't forget to use lic.sh located in your product bin
directory to install the license file from the enclosed floppy.
Refer to your product Installation Guide for details on how to do
this.

Installation of BEA eLink Adapter for PeopleSoft was successful

Please don't forget to fill out and send in your registration card
```

8. Change the directory to your root directory.

```
# cd /
```

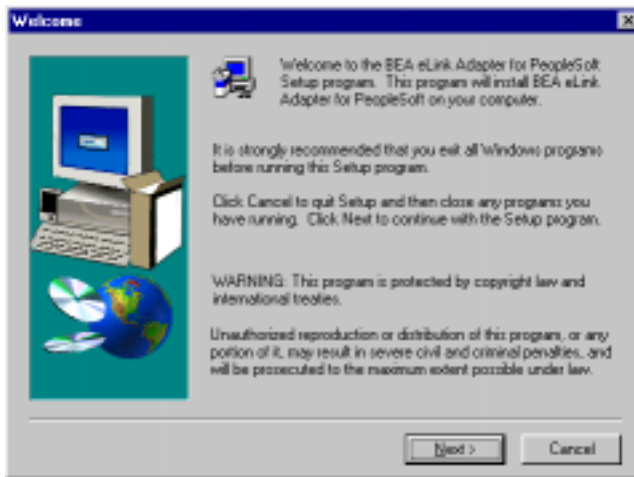
9. Unmount the CD-ROM device.

Installing on a Windows NT Platform

The following steps will install the eLink for peopleSoft software on a Windows NT system.

1. Insert the product CD-ROM and click the **Run** option from the **Start** menu. The **Run** window displays. Click **Browse** to select the CD-ROM drive. Change directories to the winnt directory and select Setup.exe program. Click **OK** to run the executable and begin the installation. The following **Welcome** screen displays. Click **Next** to continue with the installation.

Figure 3-1 Welcome Screen



2. The **BEA Software License Agreement** displays. Click **Yes** to accept the terms of the agreement and continue with the product installation. Click **No** to exit the installation process.

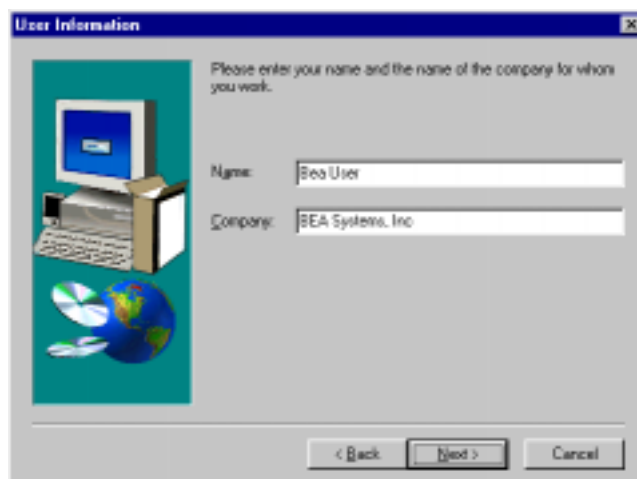
3 Installing eLink Adapter for PeopleSoft

Figure 3-2 BEA Software License Agreement



3. The **User Information** screen displays after the **Software License Agreement** screen. Enter the user name in the **Name** field. Enter the name of your company in the **Company** field. Click **Next** to continue with the installation.

Figure 3-3 User Information Screen



4. The **Install License File?** option screen displays next. You may select **Yes** to install your BEA Software License File, or you may select **No** to bypass this step and continue installing the eLink Adapter for PeopleSoft software. If you select **Yes**, continue with step 5. If you select **No**, continue with Step 7.

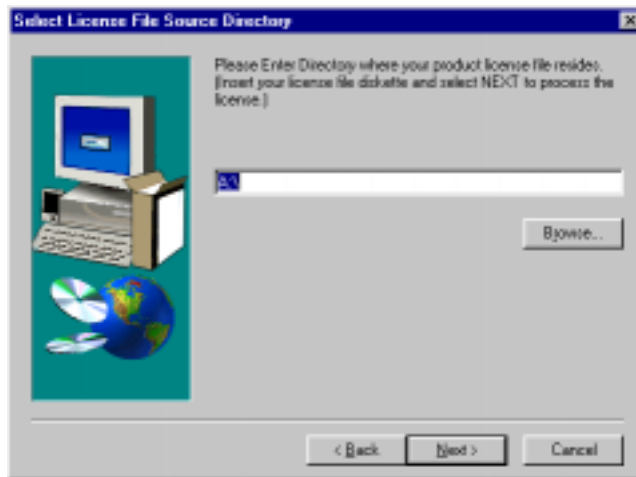
Figure 3-4 Install License File? Screen



5. The **Select License File Source Directory** screen displays. Enter the directory path where your license file resides in the field. You can browse and click directories by clicking the **Browse** button. Typically, the license file is installed in the `tuxedo/udataobj` directory.

If you entered a valid directory path, click **Next** to continue with the installation. Go to Step 7. If you entered an invalid directory path, go to Step 6.

Figure 3-5 Select License File Source Directory Screen



6. If you do not enter a valid directory path for your license file, the installation software generates an error message dialog box. You can select **Yes** to enter a valid directory path, or you can select **No** to continue with the installation. If you

3 Installing eLink Adapter for PeopleSoft

select **No**, the installation software automatically searches for either the TUXEDO or WebLogic Enterprise software. If it finds either, the installation software completes the process. If neither is found, the installation software aborts the process.

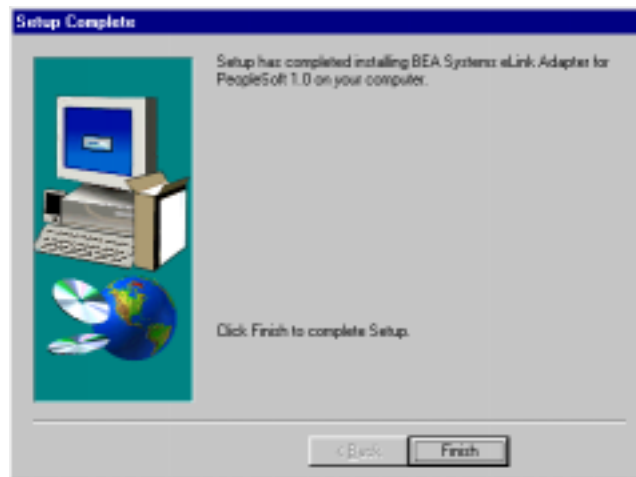
Once you have entered a valid directory path, click **Next** to continue with the installation. Go to Step 7.

Figure 3-6 Invalid License File Directory Dialog Box



7. A progress bar displays showing the status of the installation.
8. The **Setup Complete** screen displays notifying you that the BEA eLink Adapter for PeopleSoft product is installed on your system. Click **Finish** to complete the Setup process.

Figure 3-7 Setup Complete Screen



Distribution Libraries and Executables

The eLink Adapter for PeopleSoft CD-ROM contains the following libraries and executable programs. After installing the eLink Adapter for PeopleSoft software, verify that these libraries and programs are installed on your system.

Verify that the following files are installed by the eLink Adapter for PeopleSoft software.

Table 3-1 Distribution Libraries and Executables

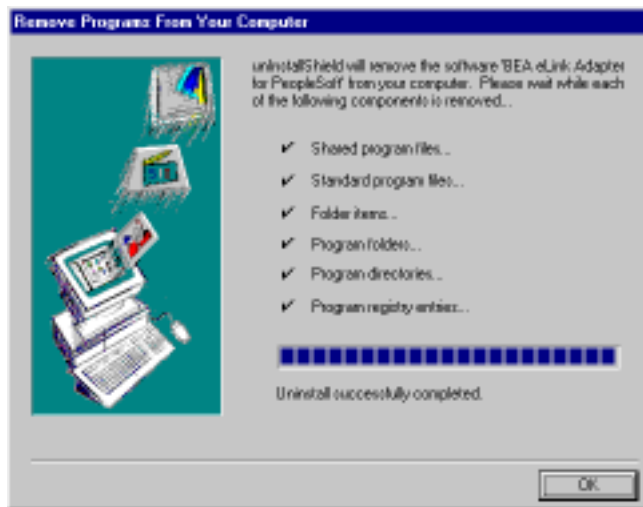
Directory	Files
/bin	cps CPSMSG_CAT
/udataobj	CPSDef.fml
elink/peoplesoft/simpeps	ePS.dc ePS.env ePS.ubb in.ud MsgAgtEx.fml readme.txt setenv.bat setenv.sh
elink/peoplesoft/psappserv	psappsrv.dc psappsrv.ubx readme.txt setenv.bat setenv.sh

Uninstalling eLink Adapter for PeopleSoft on Windows NT

Perform the following steps to uninstall the eLink Adapter for PeopleSoft on a Windows NT system.

1. Click the **Start** button, and then point to **Settings**. Point to the folder that contains **Control Panel**, and then click **Control Panel**.
2. Double click on the **Add/Remove Programs** option from the **Control Panel** listings to access the **Add/Remove Programs** properties window.
3. In the **Add/Remove Programs Properties** window, select eLink Adapter for PeopleSoft from the program list and click the **Add/Remove** button.
4. The uninstall process for eLink for PeopleSoft begins. The **Remove Programs From Your Computer** screen displays. Click **OK** to complete the uninstall process.

Figure 3-8 Remove Programs From Your Computer Screen



4 Configuring PeopleSoft Application Server Domain

It is possible to configure eLink Adapter for PeopleSoft differently from the configuration detailed here. For example, eLink Adapter for PeopleSoft can run on the same computer as PeopleSoft. These variations are simply a matter of configuring TUXEDO via the UBBCONFIG file, the scope of which is outside this document.

The configuration detailed in this document is an example. It should be a simple exercise to modify the configuration to meet any specific site needs. Refer to the TUXEDO documentation for details concerning TUXEDO configuration.

Note: This example assumes that PeopleSoft has been installed and properly configured for three-tier mode. When configuring PeopleSoft in three-tier mode, you must stop and restart the PeopleSoft application server domain. Therefore, this configuration example requires that the PeopleSoft services be stopped and restarted.

Configuring to Run Multiple Domains

This section details configuration of TUXEDO so that PeopleSoft and eLink Adapter for PeopleSoft run in separate domains.

Configuring the PeopleSoft Domain

1. Modify the domain's `psappsrv.ubx` file (usually located in the `PS_HOME\appserv\domain` directory) on the computer running PeopleSoft. Add the following entries to the end of the specified sections:

Listing 4-1 `psappsrv.ubx` Changes

```
*GROUPS
PSDGRP GRPNO = 2 OPENINFO = NONE

*SERVERS
DMADM
    SRVGRP = PSDGRP SRVID = 30
GWADM
    SRVGRP = PSDGRP SRVID = 31
GWTDOMAIN
    SRVGRP = PSDGRP SRVID = 32
```

2. Copy the `psappsrv.dc` file from the `samples\psappsrv` directory to the `PS_HOME\appserv\domain` directory. It must be modified to reflect the site-specific information. The default `psappsrv.dc` provided is shown in Listing 4-2.

Listing 4-2 Default `psappsr4v.dc`

```
#
DM_LOCAL_DOMAINS
TESTSERV GWGRP=PSDGRP
        TYPE=TDOMAIN
```

```
DOMAINID="TESTSERV"
DMTLOGDEV="<PS_HOME>appserv\<domain>\DMTLOG"

*DM_REMOTE_DOMAINS

eLink  TYPE=TDOMAIN
       DOMAINID="eLink"

*DM_TDOMAIN
eLink  NWADDR="<IP:port of eLink Adapter for PeopleSoft machine>"
TESTSERV NWADDR="<IP:port of PS machine>"

*DM_REMOTE_SERVICES
```

3. Run `psadmin` to reconfigure the domain; no modifications to any of the configurations settings should be necessary. Do not boot the domain yet.
4. Set the following environment variables at the command prompt:

```
SET TUXCONFIG=<PSHOME>\appserv\<domain>\pstuxcfg
SET BDMCONFIG =<PSHOME>\appserv\<domain>\BDMCONFIG.
```
5. After modifying the `psappsrv.dc` file for your site, run `dmloadcf` to create the binary domain configuration file:

```
dmloadcf -y psappsrv.dc
```

6. Boot the PeopleSoft domain via `psadmin`.

Note: The DMADM server will log an informational message (CMDGW_CAT:3149) upon startup. This message indicates that the default domain gateway configuration file is being used. This is normal in this configuration.

Configuring eLink Adapter for PeopleSoft Domain

1. Create a UBBCONFIG file for eLink Adapter for PeopleSoft on the computer running the software. A sample `ePS.ubb` is shown in Listing 4-3.

4 Configuring PeopleSoft Application Server Domain

Listing 4-3 Sample ePS.ubb file

```
#####
#
# This is a skeletal TUXEDO configuration file - "ePS.ubb"
# designed to be used for eLink Adapter for PeopleSoft.
#
#####

*RESOURCES
IPCKEY          33247          # ( 32768 < IPCKEY < 262143 )
MASTER          eLink
DOMAINID        eLink
MODEL           SHM
MAXSERVERS      20
SECURITY        NONE

*MACHINES
"<Name of computer running eLink>" LMID="eLink"
    TUXDIR="C:\TUXEDO"
    APPDIR="C:\BEA_eLink\PeopleSoft\samples"
    TUXCONFIG="C:\BEA_eLink\PeopleSoft\samples\ePS.tux"
    ULOGPFX="C:\BEA_eLink\PeopleSoft\samples\ULOG"
    ENVFILE="C:\BEA_eLink\PeopleSoft\samples\ePS.env"
    TYPE="i386NT"
    MAXACCESSERS=80

*GROUPS
CPSDGRP LMID=eLink
    GRPNO=1
DGRP    LMID=eLink
    GRPNO=2
    OPENINFO=NONE

#-----
*SERVERS

DEFAULT:
    CLOPT="-A"          # Advertise all services.
    REPLYQ=N            # Reply queue not needed for our simple setup.
    MAXGEN=3            # Max number of restarts in the grace period.
    GRACE=60            # Ten minutes grace period.
    RESTART=Y
    SYSTEM_ACCESS=FASTPATH

DMADM
    SRVGRP = DGRPSRVID = 30
GWADM
    SRVGRP = DGRPSRVID = 31
GWTDOMAIN
```

```
SRVGRP = DGRPSRVID = 32

CPS
SRVGRP=CPSDGRP
SRVID=155
RQADDR="MSGAPIQ"
REPLYQ=Y
CLOPT="-A -- -l7 -p2,L -s2,R"

*SERVICES
```

2. Modify the machine name to reflect the name of the computer on which eLink Adapter for PeopleSoft is running.
3. Modify the paths to point to the correct locations.
4. Run `tmloadcf` to create the binary configuration file.

```
tmloadcf -y ePS.ubb
```

Note: The TUXCONFIG environment variable must match the one specified in `ePS.ubb`, in this case `ePS.tux`.

The FML Definition Files must be placed in a directory accessible by eLink Adapter for PeopleSoft. The `ePS.env` file provided as shown in Listing 4-4.

Listing 4-4 ePS.env File

```
FIELDTBLS32=CPSDef.fml,MsgAgtEx.fml
FLDTBLDIR32=C:\BEA_eLink\PeopleSoft\winx86\bin;
          C:\BEA_eLink\PeopleSoft\samples
CPSOpriId=<PTADMIN>
CPSOpriPswd=<PTADMIN>
```

4 Configuring PeopleSoft Application Server Domain

5. Modify the settings as follows:

- ◆ The eLink Adapter for PeopleSoft path must point to the appropriate location.
- ◆ CPSOprId and CPSOprPswd must be the Operator ID and password of a valid PeopleSoft user with the privileges necessary to run the CPSNames Message Definition.

It may be desirable to add `Usysf132` to `FIELDTBLS32` and `TUXDIR\udataobj` (where `TUXDIR` is the full path to the TUXEDO home directory) to `FLDTBLDIR32` to allow the use of `ud32` with eLink Adapter for PeopleSoft.

6. Create the domain configuration file for the eLink domain. A sample configuration file is shown in Listing 4-5.

Listing 4-5 Sample Configuration File

```
*DM_LOCAL_DOMAINS
# Domain in which BEA eLink Adapter for PeopleSoft is running
eLink  GWGRP=DGRP
      TYPE=TDOMAIN
      DOMAINID="eLink"
      DMTLOGDEV="c:\BEA_eLink\PeopleSoft\samples\DMTLOG"

# Domain in which PeopleSoft is running
*DM_REMOTE_DOMAINS
TESTSERV  TYPE=TDOMAIN
          DOMAINID="TESTSERV"

*DM_TDOMAIN
eLink      NWADDR="<IP:Port of eLink machine>"
TESTSERV   NWADDR="<IP:port of PS machine>"

*DM_REMOTE_SERVICES
MsgAPI
GetCertificate
```

7. Modify the machine name to reflect the name of the computer on which eLink Adapter for PeopleSoft is running.

8. Modify the paths to point to the correct locations.
9. Ensure that the BDMCONFIG environment variables are set before running `dmloadcf`.
10. Run `dmloadcf` to create the binary configuration file.

```
dmloadcf -y ePS.dc
```

4 Configuring PeopleSoft Application Server Domain

5 Configuring FML32

Communication with eLink Adapter for PeopleSoft is achieved through the use of FML32 buffers. This section details the creation of the FML Definition Files and configuration of the environment to allow eLink Adapter for PeopleSoft to find the FML definition files. For a complete overview of FML buffers see the TUXEDO FML Programmer's Guide provided with TUXEDO.

Create the FML Definition File(s)

The eLink Adapter for PeopleSoft component maintains a one-to-one relationship between the FML field names and the field names used in the PeopleSoft Message Definitions (note this is not the record field's name, it is the name entered for the Message Definition field mapping). In order for eLink Adapter for PeopleSoft to use the FML fields there must be one or more FML Field Definition Files which must be included in the environment variable FIELDTBLS32 and located in a directory included in the environment variable FLDTBLDIR32, both of which are in the ePS.env file.

The eLink Adapter for PeopleSoft component treats all fields as being of type string. Therefore, only unique Message Definition fields names need defining – eLink Adapter for PeopleSoft does not differentiate between multiple occurrences of the same field name in different Message Definitions when passing data between one another. It is up to the system manager to determine how to maintain the FML definition files. They may be stored in one file or broken into sets of files that may, for example, correspond to the fields used for each individual Activity.

There are several ways to determine the Message Definition field names. Two of the easier ways are:

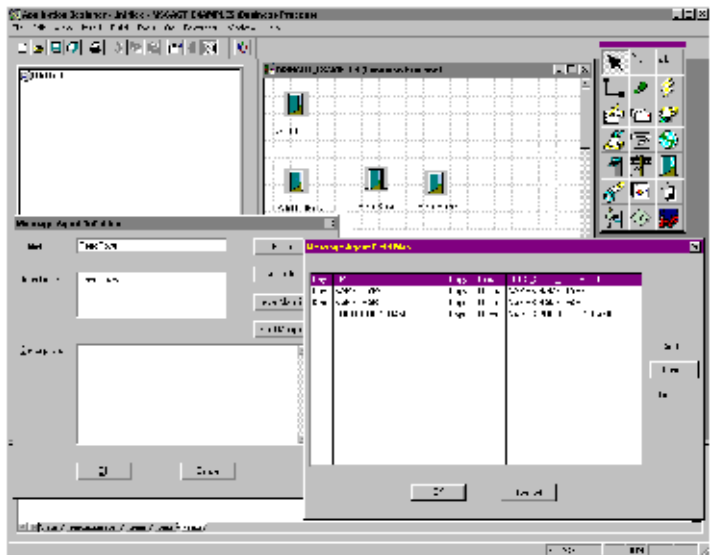
5 Configuring FML32

- ◆ From the Message Definition Field Mapping from within the PeopleTools Application Designer
- ◆ By running a query directly against the database

To determine the field names that must be defined in an FML definition file using the PeopleTools Application Designer, open each Message Agent Message Definition that will be used with eLink Adapter for PeopleSoft. Inside each Message Definition in the Field Mapping section, obtain the list of field names used by that Message Definition. For example: in the PeopleSoft demonstration database the Business Process MSGAGT_EXAMPLES contains one Activity, MsgAgtExamples, which contains four Message Definitions: AddL0, AddUpdRow, ReadRow, and ReadRows. Examining the Field Mapping for the ReadRows Message Definition shows four defined fields: EMPLID, NAME_TYPE, NAME_PART, and PREFERRED_NAME. These are the fields that must be defined in an FML Definition File.

Figure 5-1 shows the list of message definition fields that must be defined in an FML definition file in order to use eLink Adapter for PeopleSoft with the message agent message definition.

Figure 5-1 List of necessary message definition fields.



The FML Definition File must contain lines similar to the following:

EMPLID	900	string	-	EmployID
NAME_TYPE	901	string	-	Type of name for employee
NAME_PART	902	string	-	ID of portion of name of employee
PREFERRED_NAME	903	string	-	Preferred name of employee

To obtain the list of fields by querying the database directly, use the following SQL query:

```
select distinct C.FIELDNAME
from PMSGAGTDEFN A, PSBUSPROCXREF B, PSMAPRECFIELD C
where B.COMPONENTNAME=A.ACTIVITYNAME
and C.ACTIVITYNAME=A.ACTIVITYNAME
order by C.FIELDNAME
```

The selection may be modified to obtain the fields for one or a set of Activities by adding additional constraints to the “where” clause.

For example, to obtain the fields used only by the MsgAgtExamples Activity, use the following query:

```
select distinct C.FIELDNAME
from PMSGAGTDEFN A, PSBUSPROCXREF B, PSMAPRECFIELD C
where B.COMPONENTNAME=A.ACTIVITYNAME
and C.ACTIVITYNAME=A.ACTIVITYNAME
and C.ACTIVITYNAME='MsgAgtExamples'
order by C.FIELDNAME
```

6 Running eLink Adapter for PeopleSoft

This section discusses starting the TUXEDO domain(s) to allow eLink Adapter for PeopleSoft to function.

First, boot the PeopleSoft domain via **psadmin**. This domain must be running in order for the eLink for PeopleSoft server (CPS.EXE) to successfully initialize.

The eLink for PeopleSoft domain environment has to be set before it can be booted up. The environment variables that need to be set are: TUXCONFIG, BDMCONFIG, FIELDTBLS32 and FLDTBLDIR32. A sample environment batch file to do this has been provided in `elink\peoplesoft\simpeps\setenv.bat`.

The eLink for PeopleSoft domain can now be booted up by using the command:

```
tmboot -y
```

Based on the command line options given to eLink for PeopleSoft, it will look for all or specific Activities and create the TUXEDO services to execute those message definitions. The command line options for eLink for PeopleSoft are summarized below.

The eLink for PeopleSoft component maintains a one-to-one correspondence between each advertised service and each Message Agent Business Process–Activity pair. Four (optional) command line parameters control the way in which eLink for PeopleSoft service names are created from the PeopleSoft Activity and Message Definition names. The parameters are:

-l<length> (lowercase “L”)

specifies the length of the service prefix constructed from the Activity name.

Where <length> is replaced by one of the following numbers:

6 Running eLink Adapter for PeopleSoft

0 –

Service name derived solely from the Message Definition Name (uses none of the Activity Names).

1-13 –

Service name consists of characters from both the Activity and Message Definition names. The name uses a total of 14 characters from the two names: a prefix derived from the Activity name, a dot (“.”), and a suffix derived from the Message Definition name. The number represents the maximum number of characters to use for the prefix.

An optional conversion level may be specified to control the algorithm used for creating the service name prefix and suffix. This conversion will be applied before concatenation, so that truncation occurs based on the setting of the “-l” parameter.

-p<level>

specifies the conversion level to use for creating the service name prefix from the Activity name.

-s<level>

specifies the conversion level to use for creating the service name suffix from the Message Definition name.

Where <level> is replaced by one of the following numbers:

0 -

At a conversion level of zero, no changes are made to the original name before the concatenation is performed. This is the default if the -p or -s is not specified.

1-

Remove spaces, keeping up to 15 characters (note that further truncation may occur during the concatenation step)

For example:

“This Is A Long Name In PeopleSoft” becomes:

“ThisIsALongName”

“Administer Workforce” becomes “AdministerWorkf”

2-

Remove spaces, and all vowels (y is considered a consonant) except capitals and letters preceded immediately by a space, up to 15

characters (again, further truncation may occur during concatenation).

For example: “This Is A Long Name In PeopleSoft” becomes:

“ThsIsALngNmInPp”

“Administer Workforce” becomes “AdmnstrWrkfrc”

-a<ActivityName>[,<ActivityName>...]

Where: <ActivityName> is the (unmodified) name of a PeopleSoft Activity.

For each Activity specified, the Adapter will advertise services for every Message Definition in that Activity. The Adapter will advertise services for all Message Agent Message Definitions in all Activities if this option is not specified.

Command line options are processed from right to left, thus making it possible to use different lengths and mangling schemes (both prefix and suffix) for one, some, or all of the Activity – Message Definition pairs. If the –a option is encountered, the service names for that Activity are created using the previously set length (-l), prefix scheme (-p), and suffix scheme (-s). If any or all of these options are omitted the defaults are used.

FML32 Buffer

Communication with eLink for PeopleSoft is performed using FML32 buffers. The application making the PeopleSoft request must populate an FML32 buffer with the fields required by the PeopleSoft Message Definition.

In addition, two eLink for PeopleSoft defined fields must be populated:

BEA_CPSOprId and BEA_CPSOprPswd. These fields correspond to the PeopleSoft Operator ID and password, respectively, that eLink for PeopleSoft will use to log in to PeopleSoft and perform the requested action.

All FML32 fields must be defined as type *string*. This applies to both the data being passed to eLink for PeopleSoft as well as the data returned from eLink for PeopleSoft.

Field names in the FML32 buffer are identical to the names used in the PeopleSoft Message

6 Running eLink Adapter for PeopleSoft

If the Message Definition is expecting input of EmployeeID, HireDate, and Salary there must be FML32 fields of these names defined.

Multiple rows of data are represented as occurrences in the FML32 buffer. All fields with the same occurrence are treated as a single row of data to PeopleSoft. This provides the application with the ability to add or update multiple non-level 0 rows in PeopleSoft as well as receive multiple rows of data from PeopleSoft.

The FML32 buffer returned by eLink for PeopleSoft reserves one field, BEA_CPSError, for return status. This field will contain the return code and, if available, a string description of the error returned from PeopleSoft.

For example, the demonstration database that ships with PeopleSoft contains several Message Agent Message Definitions.

7 Exposing PeopleSoft Panels to TUXEDO Applications

This chapter provides instructions for determining internal names for a PeopleSoft GUI dialog box components. This information is then used to create a Message Definition for TUXEDO applications to access the PeopleSoft database in the same manner as the PeopleSoft dialog box.

Throughout this chapter you will need to record dialog box information on the two worksheets located at the end of this chapter.

You must determine the following dialog box internal information in order to create the Message Definition:

- Menu name
- Dialog box name
- Dialog box group
- Record and field names associated with the dialog box
- Search record

Determining PeopleSoft Internal GUI Component Names

Perform the following steps to gather internal names for PeopleSoft GUI dialog box components.

The PeopleSoft dialog box used in this integration example is the “Disciplinary Action” panel. This panel is created as part of PeopleSoft’s demonstration application, PTDMO.

Displaying the Disciplinary Action Dialog Box

Perform the following steps to display the Disciplinary Action dialog box.

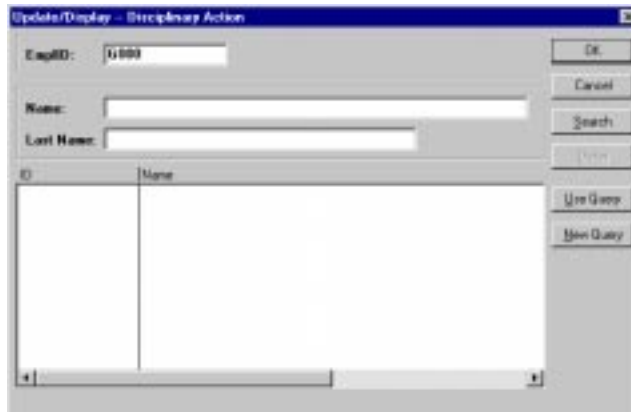
1. Select **Start -> PeopleSoft7.5 -> PeopleTools**. You will see the following dialog box; however, the title bar may display a different title.
2. Select **Go -> Administer Workforce -> Administer Workforce (GBL)** from the menu.

Figure 7-1 Select Administer Workforce (GBL)



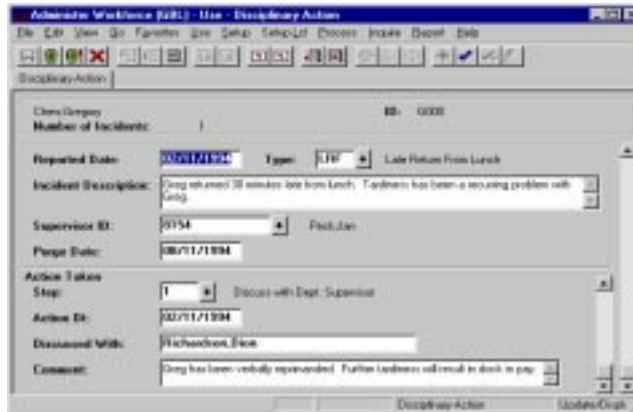
3. From the Administer Workforce dialog box, select **Use -> Disciplinary Action**.
You will see the following dialog box.

Figure 7-2 Employee ID Dialog Box



4. Type the employee number G000 in the EmpID box and click OK. The Administer Workforce (GBL) - Use - Disciplinary Action dialog box displays.

Figure 7-3 Disciplinary Action Dialog Box



For the purposes of this example, the Disciplinary Action dialog box is the object from which PeopleSoft internal information will be gathered.

Using the Message Definition Attributes worksheet in the back of this chapter, record the following information in the GUI name column.

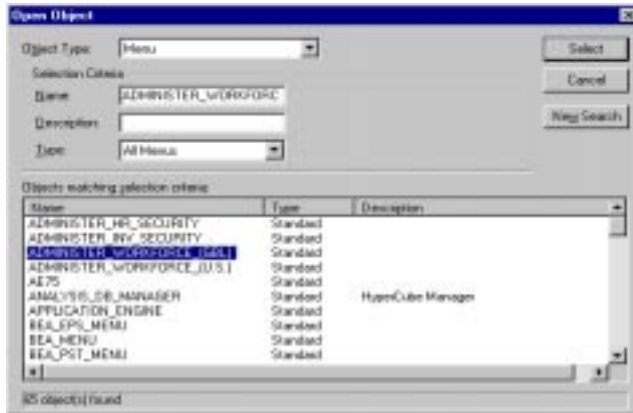
- Menu Name - Administer Workforce (GBL)
- Menu Bar - Use
- Menu Item - Disciplinary Action
- Action - Update/Display
- Panel Name - Disciplinary Action

Obtaining the Internal Menu Name

Perform the following steps to obtain the internal menu name.

1. Select **Start -> PeopleSoft7.5 -> Application Designer**. You will see the Application Designer dialog box.
2. Select **File -> Open**. You will see the following Open Object dialog box.

Figure 7-4 Open Object Dialog Box



3. In the Object Type drop-down list, select Menu.
4. Type % in the Name box and click Select. The “Objects matching selection criteria” field populates with a list of items.
5. Select the menu name that is similar to the GUI menu name. In this case, you select ADMINISTER_WORKFORCE_(GBL).
6. Click Select. The Application Designer development environment opens with the ADMINISTER_WORKFORCE_(GBL) dialog box displayed in the right pane. This serves as verification that you selected the correct object.

Figure 7-5 Application Designer Dialog Box



7. Using the Message Definition Attributes worksheet in the back of this chapter, record the following Menu Name information in the PeopleSoft Internal Name column.
 - Menu Name - ADMINISTER_WORKFORCE (GBL)

Obtaining the Internal Panel Name and Group

To obtain the panel name and panel group, you must open and examine the panel within the PeopleTools Application Designer.

Perform the following steps to obtain the internal panel name and group.

1. From within Application Designer, select **File -> Open**. You will see the Open Object dialog box.
2. In the Object Type drop-down list, select Menu.
3. Type ADMINISTER_WORKFORCE(GBL) in the name box and click Select. The "Objects matching selection criteria" field populates with a list of items.
4. Select the menu name that is similar to the GUI menu name. In this case, you select ADMINISTER_WORKFORCE_(GBL).

5. Click Select. The Application Designer development environment opens with the ADMINISTER_WORKFORCE_(GBL) dialog box displayed in the right pane. This serves as verification that you selected the correct object.
6. From within the ADMINISTER_WORKFORCE_(GBL) dialog box displayed in the right pane, select **Use -> Disciplinary Action**.
7. Right-click on Disciplinary Action and select View Definition from the menu. The following DISCIPLINARY_ACTN.GBL panel displays in the Application Designer dialog box.

Figure 7-6 Panel Group Dialog Box



8. Using the Message Definition Attributes worksheet in the back of this chapter, record the following Panel Name and Panel Group information in the PeopleSoft Internal Name column.
 - Panel Name - DISCIPLINARY_ACTN
 - Panel Group - DISCIPLINARY_ACTN.GBL

Obtaining the Search Record

Perform the following steps to obtain the Search Record.

1. From within the Application Designer with the DISCIPLINARY_ACTN.GBL panel displayed, select **File -> Object Properties**. The Panel Group Properties dialog box displays.
2. Select the Use tab.
3. Using the Message Definition Attributes worksheet in the back of this chapter, record the following Search Record information in the PeopleSoft Internal Name column.

Figure 7-7 Panel Group Properties Dialog Box



4. Click Cancel to close the Panel Group Properties dialog box.
5. Click Cancel to close the Panel Group dialog box.
6. Close the ADMINISTER_WORKFORCE_(GBL) Menu. If prompted to save changes, click No.

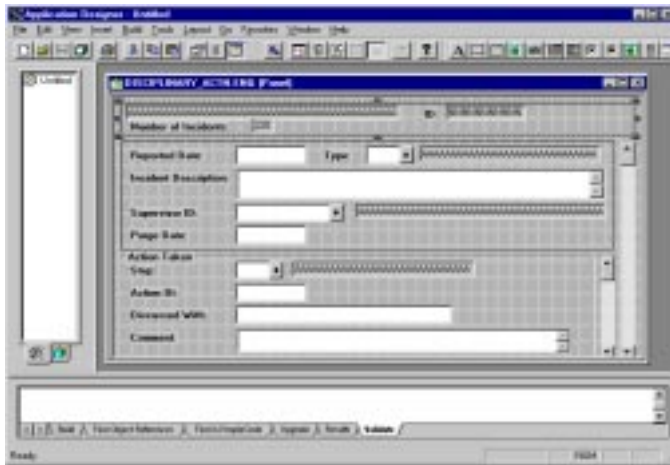
Obtaining the Record and Field Names

Perform the following steps to obtain Record and Field names.

1. Select **Start -> PeopleSoft7.5 -> Application Designer**. The Application Designer dialog box displays.
2. Select **File -> Open**. The Open Object dialog box displays.

3. In the Object Type drop-down list, select Panel.
4. In the Name box, type DISCIPLINARY_ACTN.
5. Click Select. The DISCIPLINARY_ACTN.ENG panel displays as shown.

Figure 7-8 DISCIPLINARY_ACTN.ENG Panel



6. To obtain the Record and Field information associated with the GUI object, double-click on the field of interest. The Panel Field Properties dialog box displays with the Record and Field information.

Figure 7-9 Panel Field Properties Dialog Box



7. Select the Use tab to determine if the field is used for Display Only. If the field is Display Only, then TUXEDO applications are only able to retrieve the information, not update it.
8. Using the Message Definition Fields worksheet in the back of this chapter, record the Record Name, Field Name, and Display Only information.
9. Repeat steps 6 through 8 for every dialog box component of interest.
10. Select **File -> Close** to close the DISCIPLINARY_ACTN.ENG when you are finished. If prompted to save changes, click No.

Creating the Activity and Message Definition

Once you have obtained the Message Definition attributes and the field names associated with the GUI controls, you can create a Message Definition to access the panel's information from a TUXEDO application.

Perform the following steps to create the activity and message definition.

1. Select **Start -> PeopleSoft7.5 -> Application Designer**. The Application Designer dialog box displays.

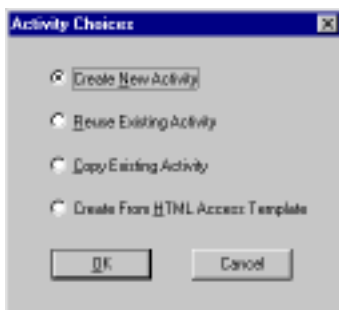
2. Select **File -> New -> Business Process**. The following panel displays within the Application Designer main window.

Figure 7-10 Business Process Panel



3. Click the “Three Footprints” icon to begin adding a new activity.
4. Click anywhere on the grid to display the Activity Choices window.

Figure 7-11 Activity Choices Window



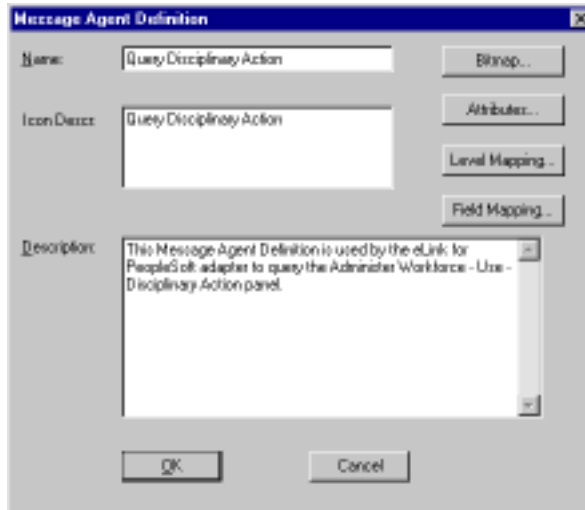
5. Click the Create New Activity button.
6. Click OK. The “Three Footprints” icon displays on the grid window.
7. Place your cursor over the “Three Footprints” icon and right-click. The Activity Definition dialog box displays.

Figure 7-12 Activity Definition Dialog Box



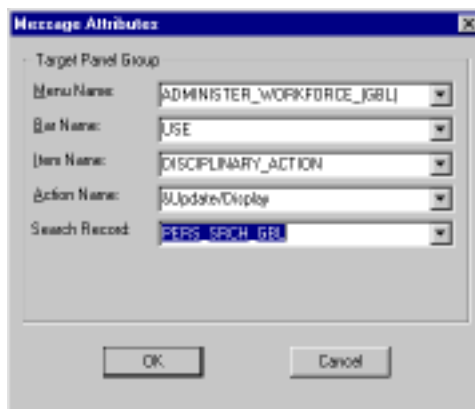
8. Use the dialog box to describe the new activity using the Name, Icon Descr, and Description fields.
9. Click OK. The icon for the new activity displays on the Business process grid.
10. Double-click the new activity icon to open the activity.
11. Click the Door icon to select it and then click somewhere on the grid to add a Message Definition.
12. Right-click the Message Definition to open the Message Agent Definition dialog box.

Figure 7-13 Message Agent Definition Dialog Box



13. Type the appropriate descriptive information.
14. Click Attributes to open the Message Attributes dialog box.

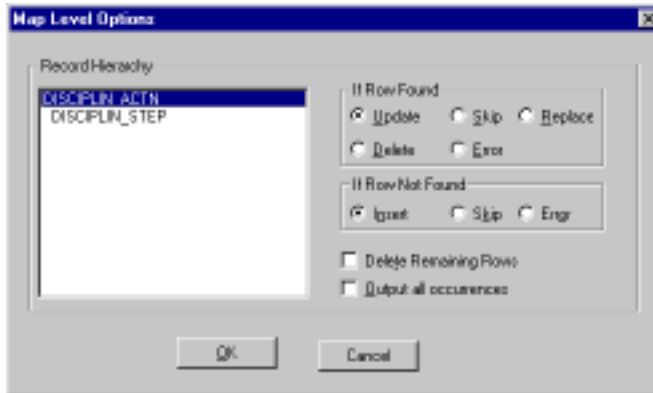
Figure 7-14 Message Attributes Dialog Box



15. From the Menu Name drop-down list, select ADMINISTER_WORKFORCE-(GBL).

16. Using the Message Definition Attributes worksheet in the back of this chapter, select the corresponding values from the Message Attributes drop-down lists.
17. Click OK to return to the Message Agent Definition dialog box.
18. Click Level Mapping to open the Map Level Options dialog box.

Figure 7-15 Map Level Options Dialog Box



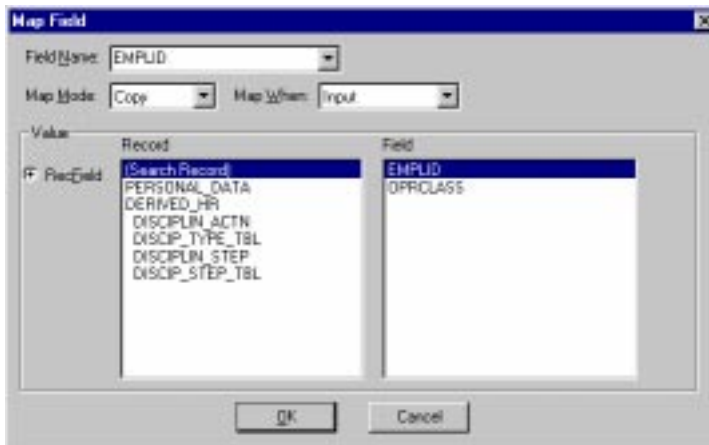
19. Accept all the defaults and click OK to return to the Message Agent Definition dialog box.
20. Click Field Mapping to open the Message Agent Field Map dialog box.

Figure 7-16 Message Agent Field Map Dialog Box



21. Click Add to open the Map Field dialog box.

Figure 7-17 Map Field Dialog Box



Using the information recorded in the Message Definition Fields worksheet at the back of this chapter, map each field in the Message Agent Field Map so that this information can be retrieved by TUXEDO applications.

22. To add the field EMPLID, select Search Record in the Record pane.

23. Select EMPLID in the Field pane.

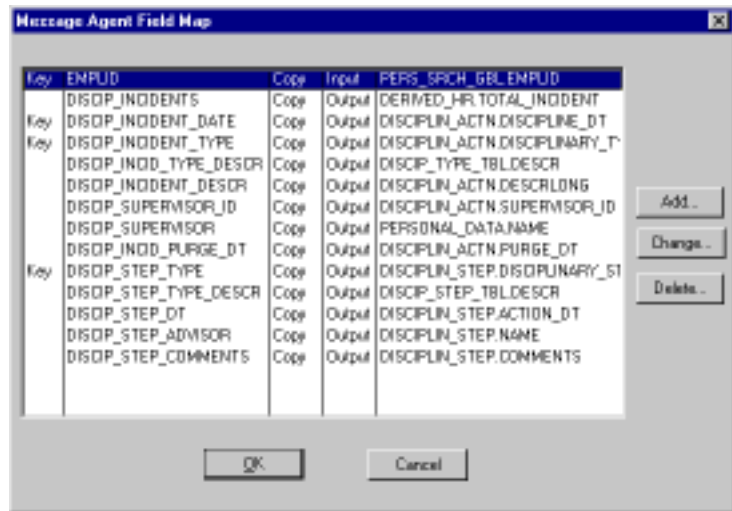
24. Type EMPLID in the Field Name box.
25. Accept the map Mode default.
26. Select Input from the Map When drop-down list.
27. Click OK to return to the Message Agent Field Map. The EMPLID field should be added to the Message Agent Field Map as shown below.

Figure 7-18 Message Agent Field Map



28. Add the remaining fields to the Message Agent Map definition. Since this message definition is for a query request, all other fields should be of type “Output”. These fields will not be sent in the query request, but will only be received in the query response.
Note: Notice that the Field Name defined in the Message Agent map does not have to match the field name of the record.
29. Continue adding output fields as necessary. A sample Message Definition follows.

Figure 7-19 Complete Message Agent Map Definition



30. Click OK to close the Message Agent Field Map dialog box.
31. Click OK to close the Message Agent Definition dialog box.
32. Select **File -> Save** to save the new business process, activity, and message definition.

Defining FML32 Fields

In order to use the new message definition, you must create the associated FML field identifiers.

For more information on defining FML32 fields, refer to the *BEA TUXEDO FML Programmer's Guide*.

Perform the following steps to define the FML32 fields.

1. Edit the MsgAgtEx.fml.

2. Add each field from the Message Agent Field Map to the FML file. Each field should be of type string. The following table is the FML used for this example.

Table 7-1 FML Example

#name	rel-number	type	flags	comment
EMPLID	18	string	-	Employee ID
DISCIP_INCIDENTS	19	string	-	Number of incidents
DISCIP_INCIDENT_DATE	20	string	-	Date of incident
DISCIP_INCIDENT_TYPE	21	string	-	Incident type
DISCIP_INCID_TYPE_DESCR	22	string	-	Incident type description
DISCIP_INCIDENT_DESCR	23	string	-	Incident description
DISCIP_SUPERVISOR_ID	24	string	-	Employee ID of supervisor
DISCIP_SUPERVISOR	25	string	-	Supervisor name
DISCIP_INCID_PURGE_DT	26	string	-	Date that incident is forgotten
DISCIP_STEP_TYPE	27	string	-	Type of discipline taken
DISCIP_STEP_TYPE_DESCR	28	string	-	Descrip of discipline step type
DISCIP_STEP_DT	29	string	-	Date of discipline action
DISCIP_STEP_ADVISOR	30	string	-	Discipline advisor
DISCIP_STEP_COMMENTS	31	string	-	Comments on discipline action

Testing the New Message Definition

Perform the following steps to test the new Message Definition.

1. Reboot the eLink for PeopleSoft adapter to take advantage of the new FML fields and the new Message Definition.

```
tmshutdown -s cps
```

```
tmboot -s cps
```

2. Create a script for the ud32 utility. The ud32 utility can read tab-delimited text and create a FML32 buffer request. Use the following ud32 script to test this example.

```
SRVCNM QryDscp.DscActn
```

```
BEA_CPSOprID PTDMO
```

```
BEA_CPSOprPswd PTDMO
```

```
EMPLID G000
```

3. Send the script to the indicated service and print out the FML32 response.

This script will invoke service “QryDscp.DscActn”, sending an operator ID, an operator password, and an employee id to return Disciplinary information on. The following is the output for the example.

```
$ud32 < disp.ud
```

```
SENT pkt(1) is:
```

```
SRVCNM QryDscp.DscActn
```

```
BEA_CPSOprId PTDMO
```

```
BEA_CPSOprPswd PTDMO
```

```
EMPLID G000
```

```
RTN pkt(1) is:
```

```
BEA_CPSRows 1
```

```
DISCIP_INCIDENTS 1
```

```
DISCIP_INCIDENTS_DATE 02/11/1994
```

```
DISCIP_INCIDENT_TYPE LRF
DISCIP_INCID_TYPE_DESCR    Late return from lunch
DISCIP_INCIDENT_DESCR    Greg returned 30 minutes late from lunch
Tardiness has been a recurring problem with Greg.
DISCIP_SUPERVISOR_ID 8154
DISCIP_SUPERVISOR    Peck, Jan
DISCIP_INCID_PURGE_DT    08/11/1994
DISCIP_STEP_TYPE    1
DISCIP_STEP_TYPE_DESCR    Discuss with dept. Supervisor
DISCIP_STEP_DT 02/11/1994
DISCIP_STEP_ADVISOR    Richardson, Dion
DISCIP_STEP_COMMENTS Greg has been verbally reprimanded. Further
tardiness will result in dock in pay.
```

Message Definition Worksheets

Use the following worksheets to record the information needed to create a Message Definition.

Table 7-2 Message Definition Attributes

GUI Name	PeopleSoft Internal Name
Menu Name	
Men Bar	
Menu Item	
Action	
Panel Name	
Panel Group	
Search Record	

Table 7-3 Message Definition Fields

Record Name	Field Name	Display Only	Description

Record Name	Field Name	Display Only	Description