Eigner PLM 5.1

Administration Manual for Eigner PLM 5.1

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Chapter 1

Introduction

The *Administration Guide* describes how to administrate Eigner PLM and the PLM Business and Presentation Services. It also describes how to set up online Help for the Eigner PLM clients.

About Eigner PLM Administration

To administrate Eigner PLM, you create and manage PLM environments. A PLM environment defines a particular hardware and software configuration that allows Eigner PLM to work with a relational database. For each PLM environment you create, information is stored on the PLM Server that specifies how to connect to the database and locate data.

If you choose to install a database when you install Eigner PLM, the installation program automatically creates a default environment named *axalantORIGIN* and associates the environment name with the database. After the installation is complete, you can create additional environments within the same installation. For example, you may want to use the *axalantORIGIN* environment for testing purposes before creating actual working environments.

Because a single Eigner PLM installation can have multiple environments, it is not necessary to maintain separate installations for different purposes. A single Eigner PLM installation often includes separate environments for various purposes such as development, testing, production, and education.

The environments created for an installation can be associated with the same database or with different databases. An example of a multi-environment system is one in which development and test environments and their database co-exist with a production environment and its database.

> Note: You can implement customized product lifecycle management processes within an Eigner PLM environment. Refer to the Eigner PLM online Help or contact your Agile Customer Support representative for more information on how to customize Eigner PLM for your site.

About PLM Business and Presentation Services Administration

When you install Eigner PLM, you can choose to install the PLM Business and Presentation Services by selecting the *WEB and Workflow services* installation option. The PLM Business and Presentation Services component comprises the following:

- The Web Presentation Service
- The Workflow module

Overview of the Web Presentation Service

The Web Presentation Service gives users access to PLM functionality through their web browsers. It manages web sessions for users and creates the DHTML they use to interact with the PLM Server.

To administrate the Web Presentation Service, you create and manage Web Presentation Service environments. Each environment defines a particular software configuration that enables communications between web browsers and a PLM Server via the Web Presentation Service.

For information on creating and managing Web Presentation Service environments, refer to the chapter *Administrating the Web Presentation Service* below.

Overview of the Workflow module

The Workflow module provides a robust and scaleable solution for the automation of business processes in an engineering organization. It lets you design a workflow process as a sequence of consecutive activities and assign individual resources—users, groups, roles, or distributions—to each of the work items for further processing.

To include Workflow processes in an Eigner PLM environment, you can define optional configuration parameters for the processes within the overall PLM environment definition. For more information, refer to Section *Administrating Eigner PLM*.

> Note: For information on using the Workflow module, refer to the Eigner PLM Online Help: Using Eigner PLM > Workflow.

Chapter 2

Administrating Eigner PLM

The Eigner PLM Administration Server lets you create, configure, and delete Eigner PLM environments using your web browser. Agile recommends that you use Internet Explorer 5.5 SP2 or 6.0, or Netscape 7.0 to connect to the Administration Server.

For information on using the Administration Server to administrate your Web Presentation Service environments, refer to the chapter *Administrating the Web Presentation Service*.

Connecting to the Administration Server

Complete the following steps to connect to the Administration Server and open the web page you'll use to administrate your PLM environments.

1. Point your web browser to the following address:

   http://localhost:8017/

   In the URL, *localhost* is the name of the machine on which the Eigner PLM server was installed. Use port number 8017 unless the default was changed to a different port number.

   Note: If an Eigner PLM Home Page similar to the one shown in the following figure does not appear immediately, check the settings of your browser. For example, in Internet Explorer click Tools > Internet Options > Connections > LAN settings, and make sure that the option "Bypass proxy server for local addresses" is checked.

2. Click the link Administrate Eigner PLM.
3. In the dialog box that appears, enter your user name (default: *plm*) and password (default: *plm50*) and click **OK**.

   This opens a web page similar to the one shown in the following figure.

If you allowed the Eigner PLM installation program to install the Oracle or SQL Server database, the program automatically associates the default environment name, *axalantORIGIN*, with the installed database. You can use the Manage Environment links to configure this environment and to create new environments.

If the database installation was not performed as part of the Eigner PLM installation, refer to one of the documents listed below for instructions on how to set up the appropriate database package/platform:

For an Oracle Installation, refer to one of the following:

- Installing Oracle 9iR2 for Windows
- Installing Oracle 9iR2 for UNIX

For a SQL Server installation, refer to Installing the Eigner PLM 5.1 Windows Server.

These documents can be found on the Eigner PLM CD/DVD.

After following the instructions for installing the database and importing the PLM database dump, you must either create a new environment or update an existing environment with the database parameters to associate Eigner PLM with the database.

Once you set up a PLM environment, it is accessible from any of the Eigner PLM clients. For more information, refer to the client installation guide for your platform.

Creating Eigner PLM Environments

After opening the *Administrating Eigner PLM* page in your web browser, as described in the previous section, complete the following steps to create a new environment.

1. Click the link Create a new environment.

   This opens the *Creating a new environment* page, which you use to create a PLM environment and edit database parameters so they conform to your system.

2. Enter database parameters to define the new environment.

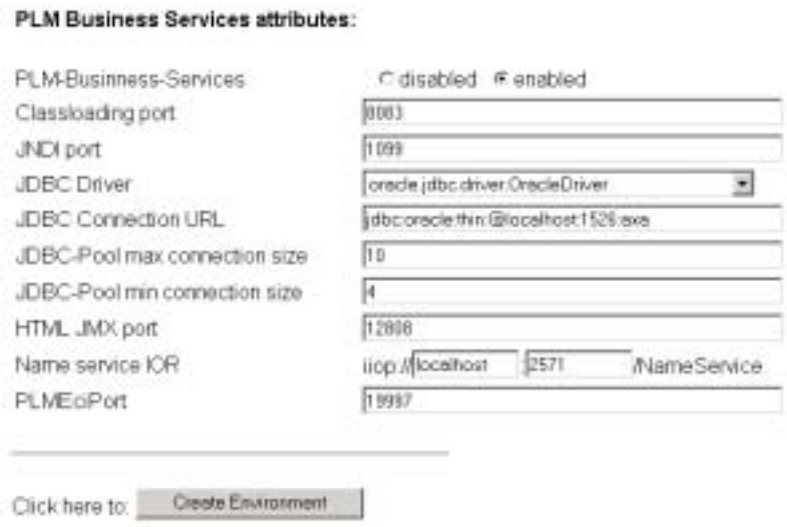
   The following figure shows the top section of the page, the Environment Input Form, which is where you enter the database parameters.

   In the example shown, the administrator has specified parameters for a new Oracle environment named joy_plm_test. Because she has elected to create a new database user and import a dump, she will have a new copy of the default database schema, which she can use to test changes before implementing them in her production environment.

For descriptions of the required database parameters, refer to Section *Optional PLM Business and Presentation Services attributes.*

3. To make Workflow features accessible for this environment, click “enabled” beside PLM-Business-Services, and then specify optional Business and Presentation Services attributes.

In the example shown in the following figure, the administrator has enabled the PLM Business and Presentation Services and retained all default attribute settings for an Oracle-based environment.



For descriptions of the Business and Presentation Services attributes, refer to next Section *Optional PLM Business and Presentation Services attributes*.

4. When you have finished entering information into the form, click **`Create Environment.`**

The PLM environment is created automatically. This may take some minutes. When the process is complete, you will see a confirmation page that lists the environment parameters you specified.

If you enabled the PLM Business and Presentation Services, this component is started automatically. To determine whether it started successfully, click the "Check Logfile" button or read the `business_services.log` file. This file is located in the directory:

<InstallDir>/ext/jboss/bin/conf/<EnvironmentName>/

For *<InstallDir>*, substitute the name of the directory where Eigner PLM is installed. For *<EnvironmentName>*, substitute the name of the PLM environment.

About the required database parameters

The following table describes the database parameters you must specify for each Eigner PLM environment you create.

Database Parameter	Description
Environment Name	The name you want to give the new PLM environment. The default is *plm_test*.
Database Type	The type and version of the database system to be used with the new environment. You must make a selection from the drop-down menu.
Database User	The name of the database user. The default is *plm*.
Database Password	The password of the database user. The default is *plm*.
Netname for Database	For Oracle, the service name of the Oracle database, prefixed with @. The default is *@plm*. For SQL Server, the name of the database server, prefixed with "@". The default is *@plm*. Replace this with your hostname (for example, *@mars*). If a default instance is installed, use the machine name (for example, *@mars*). If a named instance of the SQL Server is installed, use the full instance name (for example, *@mars\axa*). The automatic setup creates only a default instance.
Data Tablespace Name	The name of the default tablespace of the database user. It is not usually necessary to change this parameter. The default is *edb*. Caution: Using a tablespace with a name other than *edb* may cause problems.
Index Tablespace Name	The name of the index tablespace of the database user. It is not usually necessary to change this parameter. The default is *edb_idx*.

Database Parameter	Description
Create User	When set to *yes*, creates a new environment and database. Must be set to *yes* if Import Dump is set to *yes*. The default is *no*.
Import Dump	When set to *yes*, imports the default PLM database schema into the new database. The default is *no*.
Default Language	Choose your default language (English or German). This setting is applied only when a database dump is imported.
DBA User	DBA user (Oracle: *system*, SQL Server: *sa*)
DBA password	The password of the DBA user. (The DBA password is used only for database user creation and will not be stored.)
Environment admin password	Set an administrator password for the new environment. The default is *plm*. (The administrator password is used only for deleting the environment.)
Confirm admin password	Confirm the admin password for the environment.

Examples of database creation settings

SQL Server

- "Create User" = *no* and "Import Dump" = *no:* Create a new environment without any database changes.

  Either the specified user must already exist, or you will need to create the user manually.
- "Create User" = *yes* and "Import Dump" = *no:* Create a new environment and an empty database.

  This environment is not usable until a database is imported manually and associated with this user.
- "Create User" = *yes* and "Import Dump" = *yes:* Create a new environment and a new database with data.
- "Create User" = *no* and "Import Dump" = *yes:* This option is not supported.

  Note: For you to import the dump, SQL Server must be running on the same machine as the Eigner PLM Server.

Oracle:

- "Create User" = *no* and "Import Dump" = *no:* Create a new environment without any database changes.

  Either the specified user must already exist, or you will need to create the user manually.

- "Create User" = *yes* and "Import Dump" = *no:* Create a new environment and a new database user.

  This environment is not usable until a database is imported manually with this user.
- "Create User" = *yes* and "Import Dump" = *yes:* Create a new environment and a new database user with data.
- "Create User" = *no* and "Import Dump" = *yes:* This option is not supported.

Optional PLM Business and Presentation Services attributes

The following table describes attributes you need to specify only if your installation includes the PLM Business and Presentation Services and you want to make Workflow features available to users.

For information on determining the active and used ports on your system, refer to Section *Viewing and editing an environment definition*.

PLM Business and Presentation Services Attribute	Description
PLM-Business and Presentation Services	When *enabled* is selected, users have access to Workflow features. The default is *disabled*. You can confirm that Workflow is enabled for an environment by viewing the environment definition. For more information, refer to Section *Viewing and editing an environment definition*
Classloading port	The port that clients can use to dynamically download classes from JBoss. The default is *8083*. Important: The specified port must be unique and unused.
JNDI port	The port for the Java Naming and Directory Interface, which clients can use to connect to JBoss to get the initial naming context. The default is *1099*. Important: The specified port must be unique and unused.
JDBC Driver	The database driver class. This parameter is database-system dependent. Select the appropriate driver class for the database system you are using.

PLM Business and Presentation Services Attribute	Description
JDBC Connection URL	The database connection URL. This parameter is database-system dependent, and it will change automatically depending on the *JDBC Driver* parameter setting. Oracle: jdbc:oracle:thin:@venus:1521:plm venus: database server name 1521: Oracle listener port plm: Oracle Instance name SQL Server: jdbc:microsoft:sqlserver://venus:1433;SelectMethod=cursor venus: database server name 1433: TCP port For SQL Server you need to install the JDBC driver from Microsoft. For information on downloading the required version of the SQL Server JDBC driver, refer to the document *Installing the Eigner PLM 5.1 Windows Server (PLM_WindowsServer.pdf)*.
JDBC-Pool max connection size JDBC-Pool min connection size	The maximum and minimum numbers of connections. The JDBC-Pool initializes MinSize connections and never drops below the specified number. On demand, the Pool will create up to the specified number of MaxSize connections. MinSize is the startup and “rest” state of the system. MaxSize is the maximum number of connections that will be created. This number should reflect the maximum number of concurrent Business Service requests, which should be less than the number of licensed users. As guidelines, choose MinSize of 5 and MaxSize as the greater of (MinSize*2) -or- (Number of Licensed users/10).
HTML JMX port	The port used as the HTML interface for dynamic administration of JBoss services. It allows you to start, stop, and review all the mbeans in the server. Making any changes to the mbeans may result in unpredictable results. The default is *12808*. Important: The specified port must be unique, unused, and secured.
Name service IOR	The communication port between the Eigner PLM Server and the PLM Business and Presentation Services. Important: The specified port must be unique and unused.

PLM Business and Presentation Services Attribute	Description
PLMEciPort	The port used for communication between the Workflow editor and the ABS ECI Server. Important: The specified port must be unique and unused.

Determining the active and used ports on your system

You can use the `netstat` command to list active TCP ports on your system.

- To list active ports, enter: `netstat –a`
- To get more information, enter:
  - UNIX: man netstat
  - Windows: netstat /?

You can use the `rcpinfo` command to list used RCP ports on your system. The command has an output on Windows only if the EignerPLMPortmap service is running. On UNIX systems, a portmapper is running by default.

- To list used RCP ports, run: `rpcinfo –p hostname`
- To get more information, enter:
  - UNIX: man rpcinfo
  - Windows: rcpinfo /?

Configuring the Workflow Services Notifier

An important component of the Workflow module is the Workflow Services Notifier. The Notifier generates automatic e-mail messages to notify users of new and updated work orders.

To use the Notifier, you must set environment-specific parameters in the .ini file for the PLM Business and Presentation Service:

<InstallDir>\ext\jboss\conf\ABS_<EnvironmentName>.ini

For <*InstallDir*>, substitute the name of the directory where Eigner PLM is installed. For <*EnvironmentName*>, substitute the name of the PLM environment.

Edit the parameters in the following lines for each PLM environment with which you want to use the Notifier:

[notifier]
[notifier\Mailer]
HOST=<*Name*>
FROM=<*e-mail address*>
axalantSender=<*e-mail-address*>
axalantWebHost=<name:port number>
axalantWebApplication=<*name*>

The parameters are described in the following table. Stop and restart the PLM Business and Presentation Services for each environment after you edit them.

Notifier Parameter	Setting
HOST	E-mail server name. The default is *mailout*.
FROM	Sender e-mail-address that the Notifier uses to send information about new work items and other tasks. The default is *workflow@agile.com*.
axalantSender	E-mail-address the notifier uses if the External E-Mail Integration is in enabled. The default is *axalant@agile.com*.
axalantWebHost	PLM web hostname and port number (must be separated by a colon). These parameters are used in the html-layout files for the links to the Web Client. The default port number is *20050*.
axalantWebApplication	axalantWebApplication=<*name*> Eigner PLM application (or environment) name. The default is *app*.

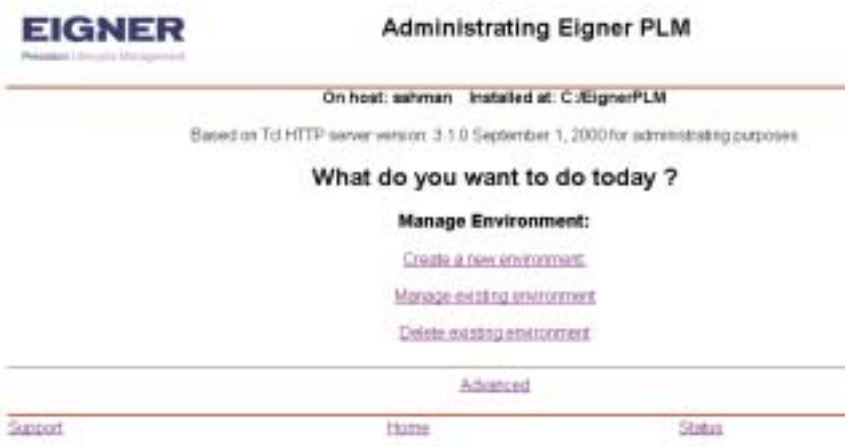
Note: Refer to the Eigner PLM online Help: Workflow -> Manager Information -> Notifier Configuration for more information on the Notifier.

Note: Note that you can also configure the Notifier to generate URLs for the Web Client containing hyperlinks for new and updated work items. For more information, refer to the Eigner PLM online Help: Customizing Eigner PLM > Customizing the Web Client.

Configuring Eigner PLM Environments

Use the instructions in this section to configure an existing environment or to restart the PLM Business and Presentation Services after the PLM Server is rebooted.

1. Connect to the Administration Server and open the web page used to administrate Eigner PLM, as described in Section *Connecting to the Administration Server*.



2. Click the link Manage existing environment.

   This displays a list of existing environments similar to the one shown in the following figure. Note that the default environment, *axalantORIGIN*, was created automatically during your Eigner PLM installation with Oracle or SQL Server.

3. Click the link for the environment you want to reconfigure or restart.

   This displays a menu of possible administration activities similar to the one shown in the following figure.

Viewing and editing an environment definition

Complete the following steps to view and edit the configuration file that defines your environment.

1. Connect to the Administration Server and open the web page used to administrate Eigner PLM, as described in Section *Connecting to the Administration Server*.
2. To view a list of the current attributes from your environment configuration file, click the link **`View environment definition file`**.

   A list similar to the one shown in the following figure appears.

```
#axalantinitialisationfile
[General]
AdminPwd=plm50
# SignalFlag =
# ModuleConfig =
[Database]
Vendor=oracle
Pwd=axa
DbBlobLocation=edb_lob
User=axa@axa
Version=817
#ParallelConnect = NO_PARALLEL_CONNECT
# Wildcards = %?
# Querymode = MIXED
[IPC]
```

Note: To determine whether Workflow is enabled for an environment, locate the following modules and check their “Startup” settings. If “Startup” is set to “immediately” for all three modules, Workflow is enabled:

[Modules\Core\Orb]
[Modules\Core\Prm]
[Modules\Core\Wfl]

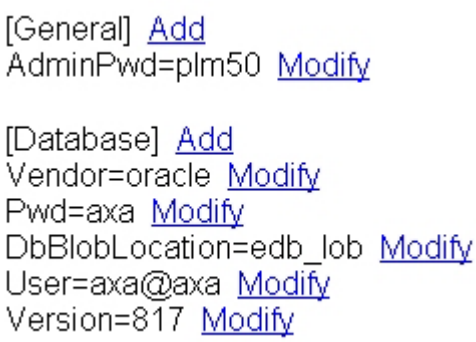
3. To edit any of the attributes shown, go back to the previous web page, and then click the link **`Edit environment definition file.`**

This displays a list of all entries (database connection, modules, special variables, and so forth) pertaining to your environment, as shown in the following figure.

Note: IMPORTANT: Do not modify the PLM Business and Presentation Services through this form. Instead, use the “Administrating PLM Business and Presentation Services ” form to set or modify the PLM Business and Presentation Services settings. For more information, refer to Section *Creating Eigner PLM Environments*.

Example:

To adapt the database-specific values to your installed database, click the `Database` link. This brings you to the section of the form shown in the following figure.



Click the `Modify` link next to "Pwd=plm" to modify the database user password to match your Oracle (or SQL Server) installation.

After modifying a value you will be instructed to return to the administration page, which is recommended if more than one value needs to be changed. To see current changes on the administration page, use F5 or Refresh to refresh the page contents.

Changing default language and encrypting database user password

For each of your PLM environments, you can change the default language setting that is applied when a database dump is imported. You can also encrypt the database user password for an environment to prevent unauthorized access to your PLM data.

> Note: If you want to both encrypt the database user password and change the default language for an environment, be sure to change the default language first. Once the password is encrypted, you will be unable to change the default language.

1. Connect to the Administration Server and open the web page used to administrate Eigner PLM, as described in Section 0.
2. Click the link **`Change default language`**, choose the language you prefer from the drop-down menu, and then click Ok.

3. Click the link **`Encrypt database user password`** and then click the button to encrypt the password.

Configuring the PLM Business and Presentation Services

When the PLM Business and Presentation Services (formerly known as axalant Business and Presentation Services, or ABS) is enabled, the Eigner PLM Workflow functionality is available to

users. To configure the PLM Business and Presentation Services for an Eigner PLM environment, you *must* use the following procedure. Do not use the procedure for editing an environment definition.

1. Connect to the Administration Server and open the web page used to administrate Eigner PLM, as described in Section 0.
2. Click the link Configure PLM Business and Presentation Services.

   This displays a web page similar to the one shown in the following figure.

3. Edit the page to update the PLM Business and Presentation Services attributes, described in the following table, for your environment.

   The Eigner PLM Business and Presentation Services component restarts automatically. This may take some minutes, after which a window should appear indicating that the services were was stopped and restarted.

   Note: To determine whether the PLM Business and Presentation Services started successfully, click the “Check Logfile” button or read the `business_services.log` file. This file is located in the directory `<InstallDir>/ext/jboss/bin/conf/<EnvironmentName>/`

   For *<InstallDir>*, substitute the name of the directory where Eigner PLM is installed. For *<EnvironmentName>*, substitute the name of the PLM environment.

The following table provides explanations for the attributes you can set to configure the PLM Business and Presentation Services.

PLM Business and Presentation Services Attribute	Description
Environment Name	The name of the environment for which you want to configure the PLM Business and Presentation Services.

PLM Business and Presentation Services Attribute	Description
Database User	The name of the database user defined for the environment.
Database Password	The password of the database user defined for the environment.
Classloading Port	The port that clients can use to dynamically download classes from JBoss. The default is *8083*. Important: The specified port must be unique and unused.
JNDI_Port	The port for the Java Naming and Directory Interface, which clients can use to connect to JBoss to get the initial naming context. The default is *1099*. Important: The specified port must be unique and unused.
JDBC Driver	The database driver class. This parameter is database-system dependent. Select the appropriate driver class for the database system you are using.
JDBC Connection URL	The database connection URL. This parameter is database-system dependent, and it will change automatically depending on the *JDBC Driver* parameter setting. Oracle: jdbc:oracle:thin:@venus:1521:plm venus: database server name 1521: Oracle listener port plm: Oracle Instance name SQL Server: jdbc:microsoft:sqlserver://venus:1433;SelectMethod=cursor venus: database server name 1433: TCP port For SQL Server you need to install the JDBC driver from Microsoft. For information on downloading the required version of the SQL Server JDBC driver, refer to the document *Installing the Eigner PLM 5.1 Windows Server*(PLM_WindowsServer.pdf).

PLM Business and Presentation Services Attribute	Description
JDBC Pool max connection size JDBC-Pool min connection size	Defines the maximum and minimum numbers of connections. The JDBC-Pool initializes MinSize connections and never drops below the specified number. On demand, the Pool will create up to the specified number of MaxSize connections. MinSize is the startup and "rest" state of the system. MaxSize is the maximum number of connections that will be created. This number should reflect the maximum number of concurrent Business Service requests, which should be less than the number of licensed users. As guidelines, choose MinSize of 5 and MaxSize as the greater of (MinSize*2) -or- (Number of Licensed users/10).
HTML JMX Port	Defines the port used as the HTML interface for dynamic administration of JBoss services. It allows you to start, stop and review all the mbeans in the server. Making any changes to the mbeans may result in unpredictable results. The default is *12808*. Important: The specified port must be unique, unused, and secured.
Name Service IOR	Defines the communication port between the Eigner PLM Server and the PLM Business and Presentation Services. Important: The specified port must be unique and unused.
PLM Eci Port	The port used for communication between the Workflow editor and the ABS ECI Server. This must be the same unique, unused port specified in the ABS Eci URL.
ABS Eci URL	Defines the communications between the Workflow editor and ABS ECI Server. The specified Port must be unused and unique!
Tracelevel	Between –1 (no tracing) and 10 (high tracing). You can find the trace file in `<InstallDir>/ext/jboss/bin/conf/<EnvironmentName>/`, where <*InstallDir*> is the directory where Eigner PLM is installed and <*EnvironmentName*> is the name of the PLM environment.
IniPath	The path to the ABS_environment.ini file. Important: Do not change this path.

Starting and Stopping PLM Business and Presentation Services

At times it will be necessary to stop and start the PLM Business and Presentation Services—for instance, when you need to change port settings. Complete the following steps to start and stop these services.

1. Connect to the Administration Server and open the web page used to administrate Eigner PLM, as described in Section 0.
2. Click the link Manage existing environment.
3. Click the name of the environment you want to start or stop, and then click the link **`STOP/START PLM Business and Presentation Services`**.
4. Click the **`Start`** or **`Stop`** button to start or stop the PLM Business and Presentation Services for the selected environment.

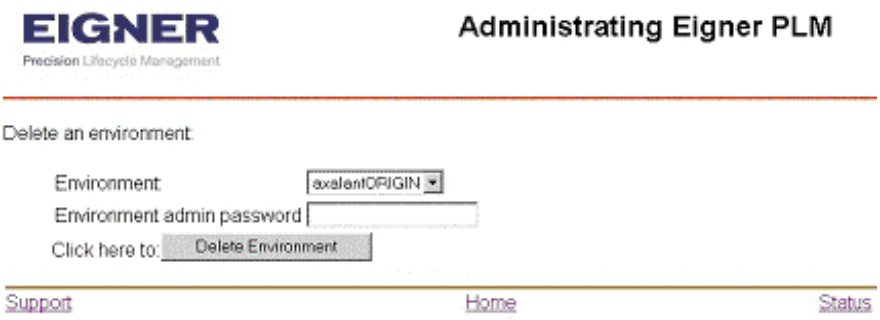
Deleting Eigner PLM Environments

Complete the following steps to delete an existing Eigner PLM environment.

1. Connect to the Administration Server and open the web page used to administrate Eigner PLM, as described in Section 0.

2. Click the link Delete existing environment.

   This opens a page similar to the one shown in the following figure.



3. Select the name of the environment you want to delete.
4. Enter the administration password for the selected environment. If you forget the password, retrieve it from the environment configuration file.

init/<env name>.edb:
…
[General]
AdminPwd=<password>
…

5. Click Delete Environment.

Checking Environment Configuration Files

All modifications you make to environment settings using the Administration Server are written to the corresponding environment file in `<InstallDir>/init/<environment.edb>` (for example, `EignerPLM5/init/axalantORIGIN.edb`).

After a successful installation, the setup tool replaces variables such as `<InstallDir>` with your installation path.

Chapter 3

Administrating the Web Presentation Service

If you installed the PLM Business and Presentation Services during the Eigner PLM installation (by selecting the *WEB and Workflow services* installation option), you can use the Web Presentation Service to give users access to PLM functionality through their web browsers.

To administrate the Web Presentation Service, you use the Eigner PLM Administration Server. You can perform the following tasks:

- ❑ Create a Web Presentation Service environment on the Eigner PLM Server machine or on a remote machine
- ❑ Configure or delete an existing Web Presentation Service environment
- ❑ Start and stop the Web Presentation Service

Connecting to the Administration Server

Complete the following steps to connect to the Administration Server and open the web page used to administrate the Web Presentation Service. Agile recommends that you use Internet Explorer 5.5 SP2 or 6.0, or Netscape 7.0.

1. Point your web browser to the following URL:

   http://localhost:8017/

   In the URL, *localhost* is the name of the machine on which the Eigner PLM server was installed. Use port number 8017 unless the default was changed to a different port number.

   Note: If an Eigner PLM Home Page similar to the one shown in the following figure does not appear immediately, check the settings of your browser. For example, in Internet Explorer click Tools > Internet Options > Connections > LAN settings, and make sure that the option “Bypass proxy server for local addresses” is checked.

2. Click the link Administrate Web Presentation Service.
3. In the dialog box that appears, enter your user name (default: *plm*) and password (default: *plm50*) and click **OK**.

This opens a web page similar to the one shown in the following figure, which you can use to set up web access to your environment.

Creating Web Presentation Service Environments

A Web Presentation Service environment defines a particular software configuration that enables communications between web browsers and a PLM Server. Each Web Presentation Service environment can connect to only one PLM Server.

Complete the following steps to create a Web Presentation Service environment.

1. Connect to the Administration Server and open the web page used to administrate the Web Presentation Service, as described in Section *Connecting to the Administration Server*.
2. Click the link Create a new environment.

   This opens the page shown in the following figure, which you use to define the new Web Presentation Service environment. The definition will specify the communications ports used by components such as the Java daemon and web browsers.

3. Enter parameters in the text fields to define web access for the new environment.

The following table describes the web access parameters.

Web Access Parameter	Description
Environment name	The name you want to give the new Web Presentation Service environment. This name is unrelated to your PLM environment name. It is used only to manage the Web Presentation Service environment.

Web Access Parameter	Description
PLM host	The name of the machine on which your Eigner PLM Server resides.
PLM port	The port on which the Java Daemon listens for a connect request. The default is *16067*.
HTTP port	The port over which you will call the Web Presentation Service via a web browser. The default is *8088*. Important: The specified port must be unique and unused.
Ajp12 port	An internal port used by the Tomcat Servlet Engine. The Default is *7077*. Important: The specified port must be unique and unused.

4. When you have finished entering information, click **`Create`**.

   The new Web Presentation Service environment is created and the PLM Web Presentation Server starts automatically. This may take some minutes. If the environment is created successfully, you'll see a page similar to the one shown in the following figure.

   You can confirm that the Web Presentation Server started successfully by checking the `web_presentation.log` file in the directory `<InstallDir>/epclt/<WebEnvironment>/`

   For <*InstallDir*>, substitute the name of the directory where Eigner PLM is installed. For <*WebEnvironment*>, substitute the name of the Web Presentation Service environment.

   There will be an initial use of memory of up to 40 MB at startup and approximately 128 MB during use.

   You can now start the Eigner PLM Web Client using Internet Explorer 5.5 SP2 or 6.0, or Netscape 7.0 at the following address:

   http://localhost:HTTPPort

   In the URL, *localhost* is the machine name of the Eigner PLM Server and *HTTPPort* is the port specified in the HTTP Port attribute when you created the Web Presentation Server environment.

   For example, if the default parameter for HTTP port (8088) was used to create the Web Presentation Service environment on a PLM Server named *myPLMserver*, the URL will look like this:

http://myPLMserver:8088

Creating Remote Web Presentation Service Environments

To reduce the load on the PLM Server, you can run the Web Presentation Service on a separate machine from the PLM Server. Because the FELICS license software, File Service, and database system are not required on the remote machine, you will need to install only the PLM Server software.

Complete the following steps to create a remote Web Presentation Service environment.

1. Install the PLM Server software and the PLM Business and Presentation Services on the machine where you want to run the Web Presentation Service.

   Follow the instructions in the installation guide for your platform. On the Custom Setup screen, you'll need to select only the "Server" and "WEB and Workflow services" installation options.

2. When the installation is complete, create a Web Presentation Service environment and set its PLM host name to the name of the machine hosting the PLM Server.

   Refer to Section *Creating Web Presentation Service Environments* for instructions. Note that a Web Presentation Service environment can connect to only one PLM Server.

3. To run the Web Client in the new environment, point your browser to:

   http://<WebPresentationHost>:8088/

   For <*WebPresentationHost*>, substitute the hostname of the machine where the Web Presentation Service is installed.

   Note: On Windows, you can save resources by disabling automatic startup for all Eigner PLM services, with the exception of the Eigner PLM Admin service. To disable a service, open the Control Panel and double-click Administration Tools and then Services. Right-click the service name, click Stop, and then click Properties and set Startup type to "Manual."

   Note that if the machine hosting the Web Presentation Service is rebooted, you'll need to use the Administration Server to restart the service. Refer to Section *Starting and Stopping the Web Presentation Service* for instructions.

Configuring Web Presentation Service Environments

Complete the following steps to configure your Web Presentation Service environments.

1. Connect to the Administration Server and open the web page used to administrate the Web Presentation Service, as described in Section *Connecting to the Administration Server*.

2. Click the link Manage existing environment.

   This opens a web page similar to the one shown in the following figure, which you can use to adapt your environment.

Any previously created environments (for example, `webplmtest`) should appear in the list of existing environments.

3. Select the environment you want to adapt and then click **Change**.

   This makes the attributes of the selected Web Presentation Service available for editing, as shown in the following figure.

The following table describes the attributes you can modify.

Attribute	Description
Ajp12 port	An internal port used by the Tomcat servlet engine. Important: The specified port must be unique and unused.
PLM Host	The name of the machine on which your Eigner PLM Server resides.
HTTP port	The port over which you can call the Web Presentation Service via a web browser. Important: The specified port must be unique and unused
PLM Port	The port on which the Java Daemon listens for a connect request. The default is *16067*.

4. If you make any changes to modify your environment, click **Change**.

The Web Presentation Server restarts automatically. This may take some minutes, after which you will see a page similar to the one in the following figure.

To confirm that the server started successfully, check the `web_presentation.log` file in the following directory:

<InstallDir>/epclt/<WebEnvironment>

For *<InstallDir>*, substitute the name of the directory where Eigner PLM is installed. For *<WebEnvironment>*, substitute the name of the Web Presentation Service environment.

Deleting Web Presentation Service Environments

Complete the following steps to delete a Web Presentation Service environment.

1. Connect to the Administration Server and open the web page used to administrate the Web Presentation Service, as described in Section 0.
2. Click the link Manage existing environment.

   A web page similar to the one shown in the following figure appears.

3. Select the name of the environment you want to delete.

   A web page similar to the one shown in the following figure appears.

4. Click **YES** to delete the environment, or click **NO** to keep the environment unchanged.

Starting and Stopping the Web Presentation Service

At times it will be necessary to stop and start the Web Presentation Service through the Administration Server. For example, you'll need to restart the service after the host machine is rebooted, and you'll need to stop and restart the service to change the ports it uses.

1. Connect to the Administration Server and open the web page used to administrate the Web Presentation Service, as described in Section 0.
2. Click the link START/STOP existing environment.

   This opens a web page similar to the one shown in the following figure.

3. Select the name of the environment for which you want to start or stop the Web Presentation Service, and then click **`select`**.

   If you try to stop a service that is not running, you will see messages indicating that the port is not in use.
4. Click **`Start`** or **`Stop`** to start or stop the service.

Adding Data Security to the Web Presentation Service

To provide more secure transmission of data between the PLM Server and client browsers, you can add SSL security features to the Web Presentation Service. SSL, or Secure Sockets Layer, is a communications protocol that uses techniques such as data encryption and server authentication to allow web browsers and web servers to communicate over a secured connection.

All components needed for SSL support are installed automatically when you install Eigner PLM with the Web Presentation Service:

- ❑ Apache Tomcat, which the Web Presentation Service uses as a standalone web server
- ❑ Java runtime environment
- ❑ Java Secure Socket Extension (JSSE)

To add SSL security to the Web Presentation Service, you must complete the following tasks:

- ❑ Configure Apache Tomcat SSL support for the Web Presentation Service
- ❑ Acquire and import a Server Certificate from a trusted source, such as VeriSign
- ❑ Add a Tomcat startup option to support the HTTPS protocol for the Java URL class
- ❑ Set the Internet protocol to HTTPS for FMS support in the Web Presentation Service
- ❑ Edit the Java security file

Refer to the following sections for instructions for completing these tasks. In all paths, <*InstallDir*> is the name of the directory where Eigner PLM is installed.

Configuring Tomcat SSL Support

To configure Tomcat SSL support for the Web Presentation Service, complete the following steps:

1. Open the Tomcat server configuration file:

   <*InstallDir*>/epcit/webplm/config/server_web.xml

2. Uncomment the SSL section, which will include lines similar to those shown in the following figure.

```
<Connector className="org.apache.tomcat.service.PoolTcpConnector">
<Parameter name="handler"value="org.apache.tomcat.service.http.HttpConnectionHandler"/>
<Parameter name="port"  value=8443"/>
<Parameter name="socketFactory"  value="org.apache.tomcat.net.SSLSocketFactory"/>
<Parameter name="keystore"  value="<InstallDir>/ext/tomcat/conf/keystore"/>
<Parameter name="keypass" value="changeit"/>
</Connector>
```

   In this example, the .keystore file of the Tomcat server is `<InstallDir>/ext/tomcat/conf/keystore` and it has the password *changeit*. The file must have a valid RSA key and Server Certificate.

3. Save the file.

Adding a Tomcat startup option to support HTTPS

SSL uses the HTTPS protocol for Internet communications. To add a Tomcat startup option to support the HTTPS protocol for the Java URL class, complete the following steps:

1. Open the Windows and UNIX scripts `start_web.sh` and `start_web.bat` in turn:

   <InstallDir>/epclt/<WebPresentationEnv>/start_web.sh

   <InstallDir>/epclt/<WebPresentationEnv>/start_web.bat

2. In each file, add the following parameter to the TOMCAT_OPTS variable:

   -Djava.protocol.handler.pkgs=
   com.sun.net.ssl.internal.www.protocol

3. Save the file.

Setting the HTTPS Protocol for FMS Support

The Web Presentation Service must be configured to use the same Internet protocol—either HTTP or HTTPS—to communicate with both client browsers and the Eigner File Service (FMS). As part of configuring SSL support in the Web Presentation Service, you must set the HTTPS protocol for FMS support.

To switch from the default HTTP protocol to HTTPS for the FMS data URL, complete the following steps:

1. Open the properties file for the Web Presentation Service:

   <*InstallDir*>/epclt/<*WebPresentationEnv*>/config/
   webplm.properties

2. Add the following configuration key:

   axalant.web.fmsDataUrl=https://<*Server Name*>:
   <*HTTPS Port*>/plm51_fms/servlet/data

   For <*Server Name*>, substitute the name of the machine on which the Web Presentation Service is running. For <*HTTPS Port*>, substitute the port number of the Web Presentation Service.

3. Save the file.

Editing the Java security file

The last step in adding data security to the Web Presentation Service is adding the SSL information to the Java security file.

1. Open the Java security file:

   <*InstallDir*>/ext/jre/<machine_platform>/lib/
   security/java.security

2. Add the following line:

   security.provider.2=
   com.sun.net.ssl.internal.ssl.Provider

3. Save the file.

Chapter 4

Setting up the Online Help

For Eigner PLM 5.1, three types of online documentation are available:

- Online Help for all Eigner PLM features is available in the PC Client.
- Because of restrictions caused by the Microsoft HTML Help format, this Help is available only on Windows computers running Internet Explorer 4.0 or later.
- Context-sensitive online Help for masks, fields, menus, and userexits is available in the PC Client, using any available browser. To make this Help available in the UNIX Client and for masks displayed in the Web Client, you must extract the file `dmo.tgz (dmo.tar.gz)` when you set up these clients.
- Online Help for Web Client features is available in the Web Client.

Setting up the PC Client

The online Help for the PC Client is installed together with the client software. No special setup is required.

Setting up the UNIX Client

To make context-sensitive Help for masks, fields, menus, and userexits available in the UNIX Client, complete the following steps:

1. Extract the help file `dmo.tgz` in the following English or German directory:
   - English: <*InstallDir*>/axalant/htd/htdocs/axalant/doc_ep/eng/dmo.tgz
   - German: <*InstallDir*>/axalant/htd/htdocs/axalant/doc_ep/ger/dmo.tgz

   The directory `dmo` is created in the German or English directory: `doc_ep/ger` or `doc_ep/eng`.

   Note: To extract the file, you can use:
   ```
   gtar xvzf dmo.tgz
   or
   gzip –dc dmo.tgz |tar xvf -
   ```

   If you used the Eigner PLM Administration Server to import your dump, the settings for calling the context-sensitive help will be set correctly now. If you did not use the Administration Server, complete the following additional steps:
2. Log in as a manager user (edbcusto, demoep_m).
3. Right-click, select *Open* > *System Defaults*, search for the variable `EDB-HLP-TYPE,` and change its value from `MSH` to `HTTP` to activate the use of the http protocol.
4. Select Manager > Configure System > Other Parameters.

In the configuration mask, search for `Rubric EDB-HLP` and select the folder `Configuration parameter.`

5. Set the documentation root `EDB-HLP-ROOT` to:

http://<plm server name>:<admin httpd port>/axalant/

The program adds `/doc_ep/eng/` or `/doc_ep/ger/,` depending on which language is active, followed by the index file name `nav_all.htm`.

- ❑ English:

  http://<plm server name>:<admin http port>/axalant/
  doc_ep/eng/dmo/nav_all.htm

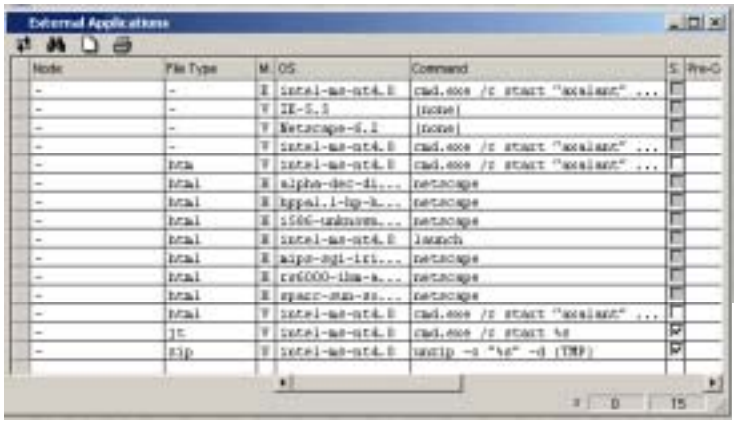
- ❑ German:

  http://<plm server name>:<admin http port>/axalant/
  doc_ep/ger/dmo/nav_all.htm

On UNIX Systems, Eigner PLM starts Netscape as a default. If the browser is not defined, follow the steps below:

1. Select *Manager > Configure System > External Applications* to specify different browsers on different operating systems and client nodes.

This is where the default browsers for each available UNIX System are defined. (For Microsoft Windows, the default system HTML browser is used.)



2. Copy the line for your hardware architecture and insert the hostname and browser name.

Note: Make sure that all of the following are true:

- ❑ File type is equal to *html*
- ❑ Mode is equal to *H* (help).
- ❑ "-" is a wildcard and means every possible value (like *).

Setting up the Web Client

When you install Eigner PLM, the online Help that's specific to Web Client features and functionality is installed on your server in the directory:

<*InstallDir*>/axalant/htd/htdocs/axalant/doc_ep/<*Language*>/www

For <*InstallDir*>, substitute the name of the directory where Eigner PLM is installed. For <*Language*>, substitute either `ger` for German help or `eng` for English help.

To install context-sensitive help for the standard Eigner PLM lists and forms that appear in the main pane of the Web Client, extract the contents of the help file `dmo.tgz` into the same directory as the dmo.tgz file:

<*InstallDir*>/axalant/htd/htdocs/axalant/doc_ep/<*Language*>

For <*InstallDir*>, substitute the name of the directory where Eigner PLM is installed. For <*Language*>, substitute either `ger` for German or `eng` for English help. A directory named `dmo` containing the context-sensitive help files is created in the German or English directory: `doc_ep/ger` or `doc_ep/eng`.

Note: To extract the file, you can use:
UNIX
```
gtar xvzf dmo.tgz
or
gzip –dc dmo.tgz |tar xvf -
```
PC
Use common compress tools to extract the archive. If your tool cannot extract the file, rename the archive and try again.
```
move dmo.tgz dmo.tar.gz
```

Setting up Context-Sensitive Help on Your Own Web Server

If you want to use your own web server to provide the online Help, copy the following directories into the `htdocs` folder of your web server:

- axalant/htd/htdocs/axalant/doc_ep/<*Language*>/www
- axalant/htd/htdocs/axalant/doc_ep/<*Language*>/css
- axalant/htd/htdocs/axalant/doc_ep/<*Language*>/images
- axalant/htd/htdocs/axalant/doc_ep/<*Language*>/dmo

For <*Language*>, substitute either `ger` for German help or `eng` for English help. The `dmo` directory will exist only if you extract the file `dmo.tgz` (dmo.tar.gz) when you set up the UNIX Client or Web Client.

Adapt the `EDB-HLP-ROOT` parameter as described in Section 0.

Using start and stop scripts

UNIX

axalant/scripts:

Script	Description
axalant	Starts the UNIX client

Script	Description
axalant_srv	Start script for the axalant server processs used by the Java and DataView daemon. Script to set the axalant shell environment.
dmn_start	Startup the DataView daemon
ep_get_mach	Return the machine string used by the installation
http_start	Starts the Eigner PLM Admin Service
java_dmn	Start script of the Java Daemon
PS_<web env>.sh	Start and Ssop the Presentation Service (tomcat) for the corresponding web environment
BS_<env name>.sh	Start and stop the Business Service (JBoss) for the corresponding PLM environment

Windows

axalant/cmd:

Script	Description
axalant_srv.cmd	Start script for the axalant server processs used by the Java and DataView daemon. With argument ENV the script sets the axalant shell environment. The tablespace names are set to default values.
oracleinstall.cmd	Starts the automate Oracle installation
plm.cmd	Startup the Windows Client
PS_<web env>.bat	Start and Stop the Presentation Service (tomcat) for the corresponding web environment. Register and deregister Windows service entry.
BS_<env name>.bat	Start and Stop the Business Service (JBoss) for the corresponding PLM environment. Register and deregister Windows service entry.

Before using the start scripts you should test the service with the admin server. If the service starts up without an error you can use the start and stop scripts to run the services.

If you run the services with these scripts the admin server cannot longer attach the services.

For each PLM or Web environment as start script is created:

Windows:

Axalant\cmd\PS_<web env>.bat (Presentation Service tomcat)

Axalant\cmd\BS_<env name>.bat (Business Service Jboss)

Unix:

Axalant/scripts/PS_<web env>.sh (Presentation Service tomcat)

Axalant/scripts/BS_<env name>.sh (Business Service Jboss)

Start these scripts to see the command options. You can use the Windows scripts to register a Windows Service. Default user axalantrt with default password (4eigner:plm) is used. Please adapt the password of the service after registration.