



ORACLE® INTEGRATED OPERATIONAL PLANNING, FUSION EDITION

RELEASE 4.0.1

INSTALLATION GUIDE

ORACLE®
ENTERPRISE PERFORMANCE
MANAGEMENT SYSTEM

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System Requirements

The minimum hardware and software prerequisites for installing Oracle Integrated Operational Planning, Fusion Edition are provided below.

Server Configuration

Table 1 Server Components and Descriptions

Server Component	Description
Hardware Configuration	A dedicated server with the following configuration: <ul style="list-style-type: none">● Pentium IV processor 1.6 GHz or faster● 2 GB RAM or more● 60 GB hard disk space or more Note: 80 GB hard disk space is recommended to accommodate growth and backup requirements.
Operating System	Windows 2003 Server with the latest patches
Database Software	Oracle 10.2.0.4 or 11.1.0.7
Development Tools	Java Development Kit JDK 1.6.0_xx where xx represents update 12 or later
Web Browser	Microsoft Internet Explorer 6 or 7, with the latest patches

Client Configuration

Table 2 Client Components and Descriptions

Client Component	Description
Operating System	One of the following: <ul style="list-style-type: none">● Windows Vista● Windows XP SP 2
Microsoft Excel	One of the following: <ul style="list-style-type: none">● Microsoft Excel 2003 SP 1 or later● Microsoft Excel 2007
Web Browser	One of the following: <ul style="list-style-type: none">● Microsoft Internet Explorer 6 or 7, with the latest patches
Third Party Software	Adobe SVG Viewer

Installing Integrated Operational Planning

Review these topics:

- “Installing Integrated Operational Planning on a Server” on page 3
- “Installing Integrated Operational Planning as an NT Service” on page 5
- “Installing Integrated Operational Planning with Provided Samples” on page 6

Note:

Before installing Integrated Operational Planning, ensure that your server meets the minimum hardware and software prerequisites. See “System Requirements” on page 2.

Installing Integrated Operational Planning on a Server

► To install Integrated Operational Planning on a server:

1 On the server, create an installation directory.

For example, `c:\oracle_iop`

2 Copy the ZIP file containing Integrated Operational Planning installation files into the installation directory that you just created.

3 In the installation directory, unzip the installation files.

4 Open a DOS command prompt window and set system environment variables as follows:

- From the Windows Start menu, select **Run**.
- In **Open**, enter `cmd` and click **OK**.
- At the command prompt, enter:

```
set JDK160ROOT=c:\jdk_root
```

where

`c:\jdk_root` is the directory where JDK 1.6.0_xx is installed; for example, `c:\jdk1.6.0_xx`.

You can also create a batch file containing the previous command to use when setting the environment variable.

5 Set Integrated Operational Planning properties as follows:

- Using a text editor, open:

```
%INSTALL_ROOT%\custom\config\site.properties
```

where `%INSTALL_ROOT%` is the Integrated Operational Planning installation directory; for example, `c:\oracle_iop`.

- In `site.properties`, add or modify the following parameter values to correspond with your database configuration.
 - `db.driver=oracle.jdbc.OracleDriver`

- `db.server=my_db_server`
- `db.database=orcl`
- `db.port=1521`
- `db.user=db_username`
- `db.password=db_password`

where

`my_db_server` is the name of your database server

`orcl` is your Oracle SID name

`db_username` is the name of the user who has database access

`db_password` is the password for the database user

Note:

If you do not have a `site.properties` file, you must create one. You can copy a `site.properties` file from `%INSTALL_ROOT%\samples\sample\config`.

- c. Set the host name:

`Server.Hostname=myhost.domain.com`

where `myhost.domain.com` is your machine name with a fully qualified domain name.

- d. (For Tomcat appserver) Set the port number:

`Server.Tomcat.Port=xxxx` (default to 8080)

- e. Set the Security Key:

`Security.SecureKey=arbitrary_key`

where `arbitrary_key` is any word you can use as a key to encrypt all the passwords. It can be any combination of numbers, letters, and special characters.

- f. Encrypt a hard coded database password:

- i. Open a DOS command prompt window, and set system environment variables as described in [step 4 on page 3](#).

- ii. Go to `%INSTALL_ROOT%\bin` and type `encrypt password` where `password` is your database password.

- iii. Copy and paste the encrypted password from the encrypt tool to the `db_password` setting in your properties file.

- g. Save the changes to `site.properties`.

6 In the same DOS command prompt window, change to the `\bin` directory in the Integrated Operational Planning installation directory, reset the Integrated Operational Planning database, and start the server.

Enter the following commands:

- `cd %INSTALL_ROOT%\bin`

where `%INSTALL_ROOT%` is the Integrated Operational Planning installation directory.

- `isreset`

Enter a license key code when prompted.

The Administrator account is created after `isreset`. By default, the administrator user name is `admin` and the password is `password`.

- `startserver`

Wait until `isreset` finishes and the command prompt returns before running `startserver`.

- 7 After the server starts, open a second DOS command prompt window and set the same system environment variables that you set earlier. (See [step 4 on page 3](#).)

If you created a batch command file containing the necessary command line, rerun the batch command in the second window.

- 8 In the second DOS command prompt window, navigate to the `\bin` directory in the Integrated Operational Planning installation directory, and run `initializesystem` to load data into the Integrated Operational Planning database.

Enter the following commands in the second window:

- `cd %INSTALL_ROOT%\bin`

where `%INSTALL_ROOT%` is the Integrated Operational Planning installation directory

- `initializesystem -u admin -p password`

`-u` defines the administrator user name

`-p` defines the administrator password

The Integrated Operational Planning server is now running in the first command prompt window. This window must remain open for the server to run.

The server is ready to accept requests from client machines, and you can log in to the applications from your web browser by connecting to the following URL:

`http://myhost.domain.com:port/interlace`

where `myhost` and `port` represent the settings for `Server.HTTP.Host` and `Server.HTTP.Port`, which you changed earlier.

Installing Integrated Operational Planning as an NT Service

- To install Integrated Operational Planning as an NT Service:

- 1 Add the following parameter to `site.properties`:

`Server.Tomcat.ServiceName=service_name`

where `service_name` is a name that you assign for this model/instance.

- 2 Open a DOS command prompt window and set system environment variables.

- a. From the Windows Start menu, select **Run**.

b. In **Open**, enter `cmd` and click **OK**.

c. At the command prompt, enter:

```
set JDK160ROOT=c:\jdk_root
```

where `c:\jdk_root` is the directory where JDK 1.6.0_xx is installed; for example, `c:\j2sdk1.6.0_xx`.

If you previously created a batch file containing the previous command, run the batch command to set the environment variable.

3 In the same command prompt window, change to the `/bin` directory in Integrated Operational Planning installation directory and start the server.

Enter the following commands:

- `cd %INSTALL_ROOT%\bin`
- `installntservice`

where `%INSTALL_ROOT%` is the Integrated Operational Planning installation directory; for example, `c:\oracle_iop`.

4 Start/stop the server using one of the following methods:

- `net start/stop service_name`
- Through services control

Installing Integrated Operational Planning with Provided Samples

► To install Integrated Operational Planning with provided samples:

1 Back up your existing `custom` folder (if it exists) and give it a new name; for example, `custom_old`.

2 Merge the `site.properties` file from your renamed `custom` folder (e.g., `custom_old`) with the `site.properties` file that came with the samples.

To merge the files, remove duplicate entries and add unique entries,

3 Copy `%INSTALL_ROOT%\samples\sample*` to `%INSTALL_ROOT%\custom`.

4 Complete steps 6 and 7 in “Installing Integrated Operational Planning” on page 3 to initialize the system.

5 In the second DOS command prompt window, do the following:

- In the Integrated Operational Planning installation directory, navigate to the `custom` folder.
- Run `%INSTALL_ROOT%\bin\runant` to configure the system for the sample models.

6 Navigate to the `custom\bin` directory in the Integrated Operational Planning installation directory and run `bootstrap` to load data into the database.

Enter the following commands in the second window:

- `cd %INSTALL_ROOT%\custom\bin`

where %INSTALL_ROOT% is the Integrated Operational Planning installation directory.

- `bootstrap -u admin -p password`

-u defines the administrator name

-p defines the administrator password

The Integrated Operational Planning server is now ready to accept requests from client machines, and you can log in to the application from your web browser by connecting to the following URL:

`http://myhost.domain.com:port/interlace`

Starting and Stopping Integrated Operational Planning

These instructions assume that the Integrated Operational Planning server is currently running in a DOS command prompt window.

You may need to stop and restart the Integrated Operational Planning server in the following circumstances:

- To reload worksheet templates after making changes to a worksheet template XML file
- To reload XML definition files after restructuring dimensions

Note:

Integrated Operational Planning comes with an unsigned license key, which allows you to start using the application. You will be prompted for an unsigned Active-X control when connected to the server.

Starting Integrated Operational Planning

- To start the Integrated Operational Planning server:

- 1 Open a DOS command prompt window and set environment variables as follows:

Note:

If a DOS command prompt window is currently open with environment variables already set, skip to Step 2.

- a. From the Windows **Start** menu, select **Run**.
- b. In **Open**, enter `cmd` and click **OK**.
- c. At the command prompt, enter:

```
set JDK160ROOT=c:\jdk_root
```

where `c:\jdk_root` is the directory where JDK 1.6.0_xx is installed; for example, `c:\jdk1.6.0_xx`.

If you previously created a batch file containing the previous command, run the batch command to set the environment variable.

- 2 In the same command prompt window, change to the `\bin` directory in the Integrated Operational Planning installation directory and start the server.

To do this, enter:

- `cd %INSTALL_ROOT%\bin`

where `%INSTALL_ROOT%` is the Integrated Operational Planning installation directory; for example, `c:\oracle_iop`.

- `startserver`

The Integrated Operational Planning server is now running in the command prompt window. This window must remain open for the server to run.

HTTP and HTTPS

By default, the Integrated Operational Planning server starts with both http (port 8080) and https (port 8443) enabled.

- To disable http (and operate solely on https):

- 1 In `etc\server\tomcat\server.xml`, remove the `Catalina.Port` connector section.
- 2 Restart the server.

- To disable https (and operate solely on http):

- 1 In `etc\server\tomcat\server.xml`, remove the `redirectPort` line from the `Catalina.Port` connector.
- 2 Remove the entire `Catalina.SSLPort` connector section.
- 3 Add or modify `Server.TomcatSSLPort=0` in your properties file.
- 4 Restart the server.

Stopping Integrated Operational Planning

- To stop the Integrated Operational Planning server:

- 1 Open a second DOS command prompt window and set environment variables as follows:
 - a. From the Windows Start menu, select **Run**.
 - b. In **Open**, enter `cmd` and click **OK**.
 - c. At the command prompt, enter:

```
set JDK160ROOT=c:\jdk_root
```

where `c:\jdk_root` is the directory where JDK 1.6.0_xx is installed; for example, `c:\j2sdk1.6.0_xx`.

If you previously created a batch file containing the previous command, run the batch command to set the environment variable.

- 2 In the same command prompt window, change to the `\bin` directory in the Integrated Operational Planning installation directory and stop the server.

Enter the following commands:

- `cd %INSTALL_ROOT%\bin`

where `%INSTALL_ROOT%` is the Integrated Operational Planning installation directory; for example, `c:\oracle_iop`.

- `stopserver`

The Integrated Operational Planning server stops and the command prompt returns in the first command prompt window. After the server stops, you can close the second window.

Deploying Integrated Operational Planning on Oracle Application Server 10.1.3

- To deploy Integrated Operational Planning on Oracle Application Server 10.1.3:

- 1 Use the Oracle Application Server console to create a JVM instance.

On the console, uncheck **Start this OC4J instance after creation**.

The name used for the JVM instance is `<oc4jhome>`.

For information on how to change the JVM for a particular process type, go to <https://metalink.oracle.com/CSP/ui/index.html> and review *Note 444462.1 Upgrading to Java 6 on Oracle Application Server 10g Release 3 (10.1.3)* and *Note 396096.1 - How to Update the Default JDK Installed in Application Server 10.1.3*.

- 2 In `OracleOAS_HOME/opmn/conf`, modify `opmn.xml` as follows:

```
<process-type id="<oc4jhome>" module-id="OC4J" status="enabled">
  <module-data>
    <category id="start-parameters">
      <data id="java-options" value=
        "-server -mx1024M -ms512M
        -XX:MaxPermSize=192M
        -Doracle.jdbc.useFetchSizeWithLongColumn=true
        -Djava.security.policy=$ORACLE_HOME/j2ee/interlacehome/config
        /java2.policy
        -Djava.awt.headless=true -Dhttp.webdir.enable=false"/>
      <data id="java-bin" value="<JDK160HOME>"/>
    </category>
    ...
  </module-data>
</process-type>
```

- 3 Restart all OAS suite processes.

4 Make the following changes to `site.properties`:

```
Server.Platform=OAS
Server.HTTP.Port=<oasport>
Server.HTTP.Host=<oashost>

Server.OAS.Home=<OracleAS_HOME>
Server.OAS.Host=<oashost>
Server.OAS.OPMNPort=<opmnport: default: 6003>
Server.OAS.AdminUser=oc4jadmin
Server.OAS.AdminPassword=<adminpassword>
Server.OAS.OC4JInstanceName=<oc4jname - default: home>

Server.ExternalURL=http://<oashost>:<oasport>/interlace
```

5 (Optional): To use SSL, change the following setting:

```
Server.ExternalURL=https://<oashost>:<oasport>/interlace
```

6 Run `isreset`.

7 Run `deployapplication`.

8 Run `initializesystem`.

Using Essbase as a Datasource in Integrated Operational Planning

► To deploy Integrated Operational Planning on Essbase:

1 Connect to an Essbase instance by opening the Oracle Integrated Operational Planning Connection dialog box and entering the following information:

- **Name**—Identifies the connection
- **Description**—Connection description
- **Host**—Machine name
- **Application Name**—Essbase application name
- **Database Name**—Name of the database for the Essbase application
- **Username**—Used for authentication
- **Password**—Used for authentication

2 Open Integrated Operational Planning.

3 In the **Administration Workbench**, go to the **Data Designer**.

4 From the Object Browser **View** menu, select **Datasources**.

5 Click **Actions** and select **Add**.

A Datasource Wizard is displayed.

6 On the **Properties** page, set the **Type** to Essbase and select an **Essbase Connection**.

- 7 On the **Configuration** page, select a **Query Type** (Report Script or MDX) and define the **Query** to send to Essbase.

See [“Writing Report Scripts” on page 11](#) and [“Handling Ancestor Names in MDX Queries” on page 11](#).

Integrated Operational Planning internally *flattens* the results returned from Essbase and displays the results under **Datasource Preview**.

- 8 On the **Fields** page, review data field details.

Administrators can change data field names; however, the data type is determined internally and cannot be changed.

- 9 Click **Save**.

Writing Report Scripts

Essbase report scripts consist of formatting elements and member selection commands. When writing report scripts:

- The following snippet must appear at the beginning of the script:

```
{ SUPFEED } { BLOCKHEADERS } { TABDELIMIT } < SINGLECOLUMN
{ SUPCOMMAS } { SUPBRACKETS } { ROWREPEAT } { DECIMAL VARIABLE }
{ NOINDENTGEN } { SUPMISSINGROWS }
```

`{ SUPMISSINGROWS }` can be omitted if you need rows with missing values in the result set.
- Follow formatting control commands by member selection commands; for example:

```
<Page (Product, Caffeinated, Ounces)
<Column (Year, Measures)
<ROW (Scenario, Market, Population)
"Jan" "Feb" "Mar" <Child "100"
<IDescendant "Population"
<IDescendant "Market" "Actual" "Sales" "COGS"
```
- Use `<SYM` or `<ASYM` commands to control member selection along columns.
- The Page axis definition should have all “real” dimensions from Essbase, which are not part of the Column or Row definitions.

Handling Ancestor Names in MDX Queries

If the `Ancestor_Names` dimension property is part of the result set returned from MDX query execution in Essbase, Integrated Operational Planning automatically generates columns in addition to the one needed to populate the property itself.

One additional column, `dimensionname_Parent`, is populated with the member name of the parent of the current member. The parent column is generated to model row-source driven dependency dimensions.

Enabling Oracle Single Sign-on to Work with Integrated Operational Planning

► To enable Oracle Single Sign-on (SSO) to work with Integrated Operational Planning:

1 Set the following properties in `site.properties`:

```
auth.methods=com.interlacesystems.isclient.auth.OracleSSOAuthentication,com
.interlacesystems.isclient.auth.WebUIAuthentication
```

2 Add the following XML to `%INTERLACE_HOME%/application/META-INF/orion-application.xml`:

```
<orion-application>
...
<jazn provider="LDAP">
<jazn-web-app auth-method="SSO" />
</jazn>
...
</orion-application>
```

3 Run `deployapplication` as described in [step 7 on page 10](#).

Configuring Server Properties

You must set properties in the following areas in Integrated Operational Planning:

- [“Server Settings” on page 13](#)
- [“Database Settings” on page 13](#)
- [“Security Settings” on page 13](#)
- [“Mail Settings” on page 14](#)
- [“Spreadheet Settings” on page 15](#)
- [“Logs and Directory Path Settings” on page 15](#)
- [“Memory Settings” on page 16](#)
- [“Client Settings” on page 16](#)

These properties can be set in any Oracle Integrated Operational Planning, Fusion Edition properties file; however, Oracle recommends that you create a new properties file named after your hostname with a properties extension as in `machine_name.properties`. For example, for machine name `IOP1`, the properties file would be `Iop1.properties`. Place the properties file in the `custom/config` directory.

Server Settings

Table 3 Server Settings and Descriptions

Setting	Description
Server.Hostname= <i>myhost.domain.com</i>	<i>myhost.domain.com</i> is your machine name with a fully qualified domain name
Server.Tomcat.Port= <i>xxx</i> (default to 8080)	<i>xxx</i> is any available TCP port
Server.Tomcat.MaxMemory= <i>xxxxm</i> Server.Tomcat.MinMemory= <i>xxxxm</i>	Sets JVM memory settings for the Tomcat application server
Server.Tomcat.ServiceName= <i>service_name</i>	<i>service_name</i> is a name assigned for this model/instance to be installed as a Windows NT service name

Database Settings

Table 4 Database Server Settings and Descriptions

Setting	Description
db.driver= <i>oracle.jdbc.OracleDriver</i>	Sets a database JDBC driver for Oracle databases
db.server= <i>my_db_server</i>	<i>my_db_server</i> is your database server name
db.database= <i>orcl</i>	<i>orcl</i> is your Oracle SID name
db.port= <i>db_port</i>	<i>db_port</i> is your TNS listener port
db.user= <i>db_username</i>	<i>db_username</i> is the name of the user who has access to the database
db.password= <i>db_password</i>	<i>db_password</i> is the database user password

Security Settings

Table 5 Security Settings and Descriptions

Setting	Description
Security.SecureKey= <i>arbitrary_key</i>	<i>arbitrary_key</i> is any word that you can use as a key to encrypt all the passwords. It can be any combination of numbers, letters, and special characters.
Security.Keystore.File= <i>custom jks file with appropriate certification</i>	A key database file that contains both public keys and private keys. Public keys are stored as signer certificates, and private keys are stored in the personal certificates.

Setting	Description
Security.Keystore.Password= <i>password</i>	Password for the key defined in Security.Keystore.File
Security.SSLSocketFactory.Enabled=true false	Uses custom SSL sockets when running outbound SSL connections, which allows custom behavior and security checks. Defaults to true. If false, you must configure the java.net.security settings as appropriate with the underlying application server.
Security.SSLSocketFactory.AllowUntrustedServers=true false	Allows outbound SSL connections to servers using an unverified SSL certificate
Security.HostnameVerifier.Enabled=true false	Enable/disable the hostname verifier for outbound https connections

Mail Settings

Table 6 Mail Settings and Descriptions

Setting	Description
Mail.Enabled=	Enable/disable outgoing mail capability (true false)
Mail.DefaultUser=	Default username for imap pop3 smtp account
Mail.DefaultPassword=	User's password
Mail.DefaultHost=	Mail hostname
Mail.DefaultDomain=	Domain name for the mail server
Mail.DefaultSubjectPrefix=	Prefixes the subject of outgoing e-mail
Mail.Transport.Protocol=	Outgoing mail protocol (only SMTP is supported)
Mail.Transport.SMTP.Host=\${Mail.DefaultHost}	Takes value from above or you can override the setting with a different smtp hostname
Mail.Transport.SMTP.User=\${Mail.DefaultUser}	Takes value from above or you can override
Mail.Transport.SMTP.Password=\${Mail.DefaultPassword}	Takes value from above or you can override
Mail.Transport.SMTP.AuthEnabled=true	If SMTP server requires authentication (true false)
Mail.Store.Protocol=POP3	Incoming mail protocol (POP3 IMAP)
Mail.Store.DefaultFolder=INBOX	Default folder on the incoming e-mail account
Mail.Reader.Folder=\${Mail.Store.DefaultFolder}	Takes value from above, or you can override
Mail.Store.POP3.User=\${Mail.DefaultUser}	Takes value from above or you can override
Mail.Store.POP3.Password=\${Mail.DefaultPassword}	Takes value from above, or you can override

Setting	Description
Mail.Store.POP3.Host=\${Mail.DefaultHost}	Takes value from above, or you can override
Mail.Store.IMAP.Secure=true	Whether IMAP server requires SSL/not (true false)
Mail.Store.IMAP.User=\${Mail.DefaultUser}	Takes value from above, or you can override
Mail.Store.IMAP.Password=\${Mail.DefaultPassword}	Takes value from above, or you can override
Mail.Store.IMAP.Host=\${Mail.DefaultHost}	Takes value from above, or you can override
Mail.Store.IMAP.PlainAuthEnabled=false	
Mail.Store.IMAP.UseDummySecurity=false	
Mail.Reader.Interval=900	Interval for the server to check for incoming e-mail

Spreadsheet Settings

Table 7 Spreadsheet Settings and Descriptions

Setting	Description
spreadsheet.display.options.max.formula.length=120	Maximum characters to show a formula in a cell comment
spreadsheet.max.rows=10000	Maximum rows that a zoom or search can display
grid.max.exceptions=50	Maximum rows to show introduced exceptions on scenario detail and impact window
grid.max.exceptions.fixed=50	Maximum rows to show fixed exceptions on scenario detail and impact window
grid.max.data.changes=50	Maximum rows on data change displays

Logs and Directory Path Settings

Table 8 Logs and Directory Path Settings and Descriptions

Setting	Description
file.upload.maxSize=1048576	Maximum size for each uploaded file
loader.data.directory=\${interlace.home}/custom/data	Directories where the load command finds the files for data
loader.upload.data.directory=\${interlace.home}/data	Directories where uploaded XLS files are stored

Setting	Description
loader.upload.script.directories=\${interlace.home}/custom/scripting,\$ {interlace.home}/custom/workbook,{interlace.home}/custom/jacl,\$ {interlace.home}/custom/scripts,{interlace.home}/interlace/workbook	Directories searched to locate the Java/JACL script file invoked by a VB script within an uploadable Excel report

Memory Settings

Table 9 Memory Settings and Descriptions

Setting	Description
Cache.BlockDataCache.Size=2000 Cache.BlockHeaderCache.Size=2000	<p>Sets the cache size for the number of blocks and headers. Make the header size and data the cache size the same.</p> <p>The block size depends on the number of measures and the number of time members.</p> <p>Given a set JVM size, assuming 30 measures and 100 time members:</p> <ul style="list-style-type: none"> ● 1 GB, use size of 2000 ● 2 GB, use size of 4000 ● 4 GB, use size of 8000

Client Settings

Table 10 Client Settings and Descriptions

Setting	Description
session_timeout=3600	Timeout is set to 60 minutes - 3600 seconds (note this setting is <i>not</i> milliseconds)
user.profile.editable=false	Allow/disallow user to change own password (true false)
SystemRS.show=false	Show/don't show system rowources in admin UI/data designer (true false)
navigation.scriptExecution.enabled=true	Show/do not show script templates (true false)

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Integrated Operational Planning Installation Guide, 4.0.1

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